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**DEMAND-ORIENTED SUSTAINABLE PUBLIC  
PROCUREMENT IN HEALTH SERVICE – A CASE STUDY ON  
COMMUNITY HEALTH SERVICE IN BEIJING, CHINA**

**GUANGYU SUN**

A thesis submitted to the University of Huddersfield in partial fulfilment of the requirements for the degree of Doctor of Philosophy

Supervisor Dr. Nicoleta Tipi

Former Supervisor Dr. Ozlem Bak

The University of Huddersfield

03-2020

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## **Abstract**

Sustainable public procurement is a development issue and an evolving process. The aim of this research is – Through the design and development of an exploratory, comprehensive SPP motivation conceptual framework, to improve the SPP motivation knowledge and practice. This research is based on the Interpretivism philosophy. This research has analysed a wide range of literature, in order to determine the general problems in SPP motivation research. The design of conceptual framework has included system thinking, Theory of Planned Behaviour (TPB) and governance theory. The research applied qualitative approaches and used semi-structured interview based on idea of Phenomenology and Neo-naturalism to collect data. This research has revealed the reason of complexity throughout SPP that includes various stakeholders, demand and interest difference, and the connections between people and organisations. The determinant of SPP development is an integrated power, it includes the pulling force of internal motivations and the pushing force of external factors. The most important motivation source comes from the interest-based internal motivation. Under the guidance of system thinking, this research has adopted an interdisciplinary theoretical perspective and goes beyond the previous research ideas of local and individual motivation factors. The research has constructed an exploratory and comprehensive conceptual framework of SPP motivation mechanism, which has integrated external and internal motivation. The conceptual framework is the main contribution of this research. The framework reveals the mechanism of internal motivation in SPP. This proves that SPP should be 'demand-oriented'. This conclusion has cracked the deep-seated reason why the SPP has not achieved good results for a long time by relying on external power or government power, determined the direction of the SPP power system, and found the public power that has been neglected for a long time. The research has compared and validated the framework with the real-world viewpoints of relevant practitioners, thus making some supplements and improvements to the framework and enhancing confidence in its practical applicability. The framework can be used for further theoretical and practical research of SPP, and provides necessary guidance and support for research and decision-making of motivation mechanism of SPP. This research has closed the gap in the current literature on the development motivation of SPP, especially the research gaps in the health service field and the key issues affecting the SPP motivation. This research has made significant contributions to both scholars and practitioners. It not only provides a strong theoretical framework for the in-depth study of the comprehensive motivation mechanism of SPP, but also provides practical suggestions for SPP and becomes a general guide for further study and implementation of SPP in the future.

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## **Academic Biography**

Being researcher in University of Huddersfield, Business School since SEP 2015. The major of research area is Sustainable public procurement. The thesis topic is 'Demand-oriented sustainable public procurement in health service – a case study of community health service in Beijing, China.

In the summer of 2016, I attended a conference held by Peking University. As I did not apply for presentation, so I only participated into discussion conference with group talk and 'short-presentation' program. In 2017, during the data collection period, I was invited by one of my interview participants to join an internal conference with his supervised researchers.

In next January, 2020. I applied to attend our Business School's annual conference. Also, I plan to try publishing after final submission of the thesis in Journal of Clean Production, International Journal of Operations & Production Management, and Journal of Purchasing and Supply Management.

# Chapter 1 Introduction

## ***1.1 Purpose of this research***

Sustainability is one of the major global challenges in today. In the past few decades, various policies and laws have been established and an increasingly wide range of sustainable procurement models have been fostered in different countries, driven by regulations and policies (Keulemans & Van de Walle, 2017; Rainville, 2017). The value of sustainability in the field of public procurement has been increasingly recognised, as reflected in EU policies and the European 2020 strategy. Public procurement accounts for a large proportion of the gross domestic product (GDP) of most countries in the world (Zaidi et al., 2018). A large amount of public funds are spent for public procurement. In EU member states, public procurement usually accounts for 10-20% of GDP, and the public sector is a major player in the market – not only as a regulator but also as a buyer (EuropeanCommission, 2008). This figure for developing countries is between 20% and 70% (Delmonico et al., 2018). Public health procurement and the whole health service system account for a substantial part of the public procurement expenditure. Public procurement has become a strategic policy tool designed to maximise citizen welfare. Among them, a large part of public procurement is closely related to the public health system (Chiarini et al., 2017; Hueskes et al., 2017).

However, despite the practice of sustainable public procurement (SPP) is quite common, and its role in the sustainable development of social economy is beyond doubt, challenges of SPP remains in the following aspects.

On the one hand, research on the drivers and orientation of SPP is still immature (Grandia, 2016). For example, SPP involves multiple procurement entities and stakeholders, research on the perceptions and abilities of these

participants (Liu et al., 2019), willingness, commitment, and organisational culture (Grandia, 2016), values and influence of leaders (Huang et al., 2016), and other SPP internal driving forces are scarce and scattered. The public and end users are also main players, their attitudes and behaviours in SPP, as well as the key role of demand for SPP have not been studied.

On the other hand, comparing with rapid change and urgent needs in health service, insufficient research has been conducted in this segment of SPP. WHO (2016) pointed out that although there have been significant improvements in human health and life expectancy in recent years, relative progress among countries and within countries has not been equal. More than 400 million people in the world suffered with limited access to primary health care. The health care services are often fragmented or under poor quality, this has resulted in low sensitivity in many national health systems and low levels of satisfaction on health services.

Although there has been an increasing number of research in the field of SPP, this research will prove new exploration based on evidence (discussed in the next section), that is, the research on the motivation mechanism of SPP development is still insufficient, and it affects the success in practice field. The problems existing in the theory and practice of SPP and the research gaps in this field need to be solved and supplemented urgently, which has contributed to the motivation of this research.

This research takes into account the trend of social science research integration (cross-integration). It frees the perspective of public procurement research from the past purely economic or administrative single-disciplinary horizon, and introduces system theory, sustainable public procurement studies, stakeholder theory, TPB theory, and governance theory, in an effort to give the SPP motivation mechanism a theoretically feasible and practically operational conceptual framework.

The purpose of this research is to examine the motivation mechanism that contributes to the development of SPP and to determine the decisive role of demand orientation for sustainable procurement. This research plans to construct a conceptual framework of the exploratory and comprehensive SPP motivation mechanism, seeking to increase and improve the knowledge system in this field. The new framework provides an SPP motivation mechanism based on literature research and an empirical research process through regional primary health service procurement in an emerging country, with internal drivers and demand orientation as the core elements of SPP conceptual framework.

This research can provide valuable discussions for scholars and practitioners interested in further enhancing SPP knowledge. At the same time, it allows people to take a more focused approach and decide which drivers and mechanisms are more conducive to the future. SPP development, especially in the primary health field, the system-based conceptual framework opens up new perspectives for the further development of theory and practice.

The next section provides evidence to justify the study and provides support for the need for further research in this area.

## ***1.2 Background and justification of this research***

Sustainability is no longer a luxury choice, but responsibility and obligation to the future of humanity. At the United Nations Summit on Sustainable Development held in September 2015 (UnitedNations, 2015), 193 Member States formally adopted the Sustainable Development Goals, which initiated 17 goals and 169 targets that plan to be achieved by 2030. It also emphasises the eradication of poverty, while coping with climate change,

alongside efforts to build economic growth and address a range of social needs.

Public procurement is a key economic activity of the government (Brammer & Walker, 2011), and governments increasingly use government procurement as a strategic tool for achieving sustainable development and broader policy objectives (OECD, 2017).

Discussions on the motivation of sustainable public procurement development are scattered in the public procurement-related research literature. Studies have identified laws, policies, standards and regulations are strict forcing motivation of SPP, meanwhile, there are several motivation factors throughout the SPP, such as supplier management, stakeholder pressure (Cai, 2011; Claro et al., 2013), government supervision, price and competition. The content of drivers or barriers include such as government regulation (Cordeiro & Tewari, 2015; Giunipero et al., 2012) and competition (Gormly, 2014; Nikolaeva & Bicho, 2011).

Part of the practice confirms that external drivers (laws, policies, finance and supplier pressures) have driven the development of SPP, especially in terms of environmental sustainability. However, there are many controversies about how government responsibility or public procurement functions should be interpreted. Different procurement entities, such as government departments, procurement executives, and the public have different understandings of SPP functions, and the procurement orientation they followed will influence on different decisions (Nadeem et al., 2017).

In the continuous expansion of SPP, some studies have noted internal factors such as stakeholder attitudes and customer demand involved in SPP. SPP participants are people who have their mind, thinking, conscious and purposefully participated into procurement activities. The development motivation of SPP is not only caused by external environmental pressure,

but also the subjective will and initiative of stakeholders that should not be ignored. After all, policies and regulations are developed and executed by humans (Gadde et al., 2010; Ghadge et al., 2017).

SPP has the characteristics of variability, diversity and complexity. Its motivation mechanism is not determined by a single factor, but is a holistic activity including all factors. Different stakeholders, including political leaders, the public, staff, regulators and suppliers, often have conflicting goals and requirements (Hazlett et al., 2013). Behind their behaviours, these are the most important internal motivation, that is, their respective interests and needs, which have rarely been analysed.

SPP orientation in the past studies has been generally ignored. Although the public is the end user of public procurement and the public's driving force is an important factor in achieving SPP, previous studies from the perspectives of public attitudes, needs, behaviours, and public participation and collaboration, have not given comprehensive and sufficient attention (Kaldor et al., 2003; Keulemans & Van de Walle, 2017). It has resulted in the exclusion of the most important stakeholders. Some studies believed that due to the lack of information sharing and public goods demand preference, the government-led 'top-down' public product supply model cannot satisfy the actual needs of residents in specific areas, and there is an imbalance between supply and demand in the basic public service sector. Not only is efficiency questioned, but also failed in fairness, and it deviates from sustainable goals.

The driving force of SPP is multifaceted and complex, involving all areas of society and decision making (Crespi, 2016; Horbach et al., 2012). The resistance factors and driving factors of sustainable procurement actions remain the centre of the SPP debate. Therefore, some research believed that scholars need to do more work and further theoretical development to

enhance understanding of the promotion of SPP development (Delmonico et al., 2018; Walker & Brammer, 2012).

Health is a necessary condition for achieving sustainable development (Gao, 2017; Knight et al., 2017). The United Nations adopts the National Health Resolution and considers health to be a major cross-cutting policy issue on the international agenda. It is a prerequisite, result and indicator for achieving the three elements of sustainable development. Governments are urged to work to provide affordable and quality health care to all (WHO, 2018). Primary health service procurement has become an important part of the government's promotion of people's livelihood security (Zhang, 2012).

In practice, health service procurement in all countries of the world faces challenges. For example, the United Kingdom established a National Health Service system in the middle of the last century, and the state unified funds raised nationwide to provide nearly equal health services for every citizen. This system model fully reflects the principle of fairness. The UK's National Health Service (NHS) procurement is currently facing the most significant financial challenges in its 69-year history. The estimated aggregate deficit of NHS providers and commissioners for 2015/16 stood at £1.85 billion, a threefold increase on the previous year (Dunn et al., 2016).

Another example is China. From 1949 to 1978, while facing a large population, a weak foundation, and backward economic and social development, China solved the problem of medical treatment for 1/6 of the world's population by using only 2% of the world's total health resources (Wang, 2014). It has been rewarded as a 'model' for developing countries by the World Health Organisation (WHO) and the World Bank.

During the 1980s and 1990s, due to the untimely commercialisation and market operation, the fairness of medical services and the efficiency of health investment were low. In the same period, China's overall medical and

health level lags behind the world's and ranked 144th place, health equity ranked 188th, and the overall situation ranked fourth from the bottom in the world. In the last ten years, the World Health Organisation representative in China, Shi Hede said that China's medical reform, the world's largest medical and health system reform project, will contribute valuable solutions to global health governance (Bai, 2012a, 2012b). The famous British medical journal 'The Lancet' issued China as one of the five countries with the greatest medical progress in the world.

The facts show that the health sector can play an important role in achieving sustainable development by placing sustainability at the heart of procurement activities (Chiarini et al., 2017). Therefore, research on the motivation mechanism of stimulating SPP is becoming more urgent and valuable.

From the preliminary review of the SPP literature, some ideas have emerged that have helped focus the research direction.

- Research on SPP motivation has been increasing in recent years, however, current findings and practical solutions are still insufficient to achieve expected results.
- Current focus on SPP motivation factors are mainly located on the description of the external pressure of the procurement organisation (Giunipero et al., 2012; Quak et al., 2019). The development of SPP without the internal factors of the procurement entity is insufficient to theoretical contribution (Gadde et al., 2010; Grandia, 2016).
- More research focuses on developed countries (Roman, 2017), and discussion on the empirical evidence for developing country-based issue was scarce especially on the drivers and benefits of SPP.
- There have been few studies on the orientation, measurement and synergy of the SPP motivation mechanism. The orientation of SPP

refers to whether the public procurement basis is derived from the government itself or from the needs of citizens (Zaki et al., 1997; Zhu et al., 2013). Most studies do not focus on who is the subject of public procurement, and for whom the specific procurement function and institutional arrangements are sustainable. This flaw is particularly serious in the people-oriented sustainable development and the multi-subject-oriented SPP pattern.

- There is evidence that SPP is relatively lagging behind in the medical field and is one of the most cited medical barriers, especially in developing countries.

Sustainable development is considered to be a holistic, internal and integrated development process (Lafond, 1995; Liu, 2012). One-sided development and disintegration of sustainable procurement motivation mechanism development theory is not sufficient to explain the nature of sustainable procurement development, and cannot solve the problem of sustainable development. Research on the development and development of SPP should also be based on a holistic, internal, and system perspective.

### ***1.3 Research aim, question and objectives***

In view of the current research status of SPP driving force, the idea formed in mind is that this research will help to strengthen the in-depth exploration around the SPP motivation theory. By providing a system-based SPP motivation mechanism conceptual framework, the theoretical research that contributes to a system thinking and in-depth SPP motivation mechanism, and provides guidance for SPP practitioners in decision-making and execution.

### **The research aim is**

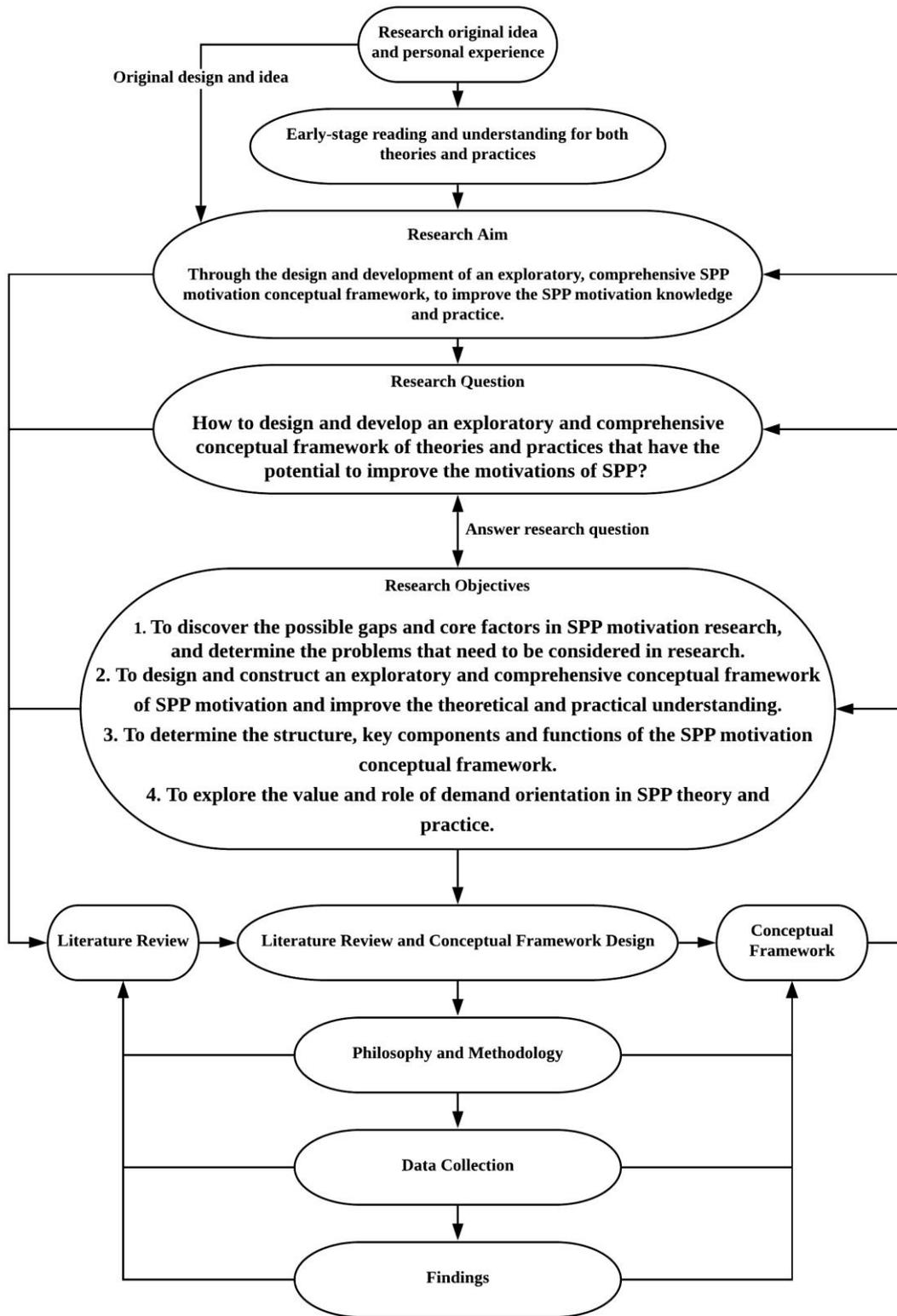
Through the design and development of an exploratory, comprehensive SPP motivation conceptual framework, to improve the SPP motivation knowledge and practice.

### **The research question is**

How to design and develop an exploratory and comprehensive conceptual framework of theories and practices that have the potential to improve the motivations of SPP?

### **The research objectives are**

1. To discover the possible gaps and core factors in SPP motivation research, and determine the problems that need to be considered in research.
2. To design and construct an exploratory and comprehensive conceptual framework of SPP motivation and improve the theoretical and practical understanding.
3. To determine the structure, key components and functions of the SPP motivation conceptual framework.
4. To explore the value and role of demand orientation in SPP theory and practice.



**Figure 1-1 Research aim, question and objectives**

#### ***1.4 Initial literature and methodology considerations***

As mentioned earlier, SPP is essentially a development issue and an evolving process. SPP is a goal-driven activity, and a series of definitions of sustainable public procurement and related motivations are given in the literature.

Sustainable procurement in the public sector has been defined as the purchasing and supply process that considers the balance of social, environmental and economic requirements (Walker & Brammer, 2012). Sustainable procurement is an economy that takes into account physical expenditures. Procurement and investment plans for environmental and social impacts. Sustainable procurement enables different organisations to meet their needs for goods, services and utilities, thereby not only achieving the best value for money in the organisation, but also bringing benefits to society while maintaining the carrying capacity of the environment and achieving a lifetime price/performance ratio as well as benefiting the entire economy (Iakovaki et al., 2009; ICLEI, 2018).

Primary Health Services (PHS) is based on practical, academically reliable and socially acceptable methods and technologies through primary health care. It requires the full participation of individuals in the community, the family, and the spirit of self-reliance and self-determination of the cost to the community and the state at all stages of development which make it accessible to all (WHO, 2008, 2018).

Health service procurement, defined by (WHO, 2000) is the process of paying the raised public funds to the supplier to obtain a series of specific or non-specific health services or activities. Together with the revenue collection and pooling of resources, it is one of the interrelated components of the generalised financing function of the health system. As a public good, the government uses certain policies and strengths to plan and regulate the

collection and distribution of health funds, and to achieve sustainable goals through intervention and leading role in its sources and expenditures. Adequacy, sustainability, fairness and efficiency are the basic functions of health financing (WHO, 2011).

The WHO actively advocates that governments perform their duties and achieve 'health coverage for all'. It means that people should have access to the health services they need without being in financial difficulties. It covers a full range of high quality primary health services, from health promotion to prevention, treatment, rehabilitation and palliative care (WHO, 2018).

The meaning of 'motivation' in physics refers to the power that can make the mechanical operation work, such as water, electricity, heat, power, etc. In the conceptual category of social science, 'motivation' refers to the positive forces and positive factors that inspire, promote, guide, and dominate people's activities, which leads to the movement and development of things. Several organisational factors that drive or hinder the implementation of SPP have been identified. A number of factors have been identified as the driving forces for SPP, such as national or international legislation, procurement commitments, and training (Gadde et al., 2010; Grandia, 2016), awareness and competencies of participants, willingness (Liu et al., 2019), commitment, and organisational culture (Islam et al., 2017), leaders' values and influence, government regulation, and customer stress (Habicht et al., 2015). In this research, the SPP motivation mechanism is the power structure system and its operational rules that drive the SPP goals and processes, development and evolution.

Stakeholders are entities that may affect SPP process and activities or decisions, usually including the public and customers, governments, investors, purchasing agencies, goods and services providers, NGOs and employees, academic research institutions, etc. (Xia, 2019). These

stakeholders have been identified as important drivers behind the organisation of sustainable practices (Kumar & Nath Banerjee, 2012; Mackintosh et al., 2018; Shan & Yang, 2010; WHO, 2015). Stakeholder's satisfaction is an important indicator of sustainability (Szekely & Dossa, 2014).

The SPP is usually implemented and promoted by a consortium of four main stakeholders: the purchase subject, the use subject, the undertaker and the review subject. It is a unified entity. The main body of purchase, the main body of use (Huo, 2015; Li & Fan, 2017; Wang & Chen, 2016), the provider subject (Yang & Liu, 2017; Zhang et al., 2017) and the review subject (Lember et al., 2011), have their own responsibilities, interests, needs, maintain relative independence, and are closely linked and connected. According to the SPP process, the use subject transmits its own demand for public services to the purchase subject through a certain expression mechanism. The purchase entity enters into a contractual contract with the undertaker to purchase the public service required by the subject from the subject. The third-party evaluation mechanism, through the review subject, supervises the process of undertaking the public service of the main body. The supervision of the review subject also needs to refer to the use of the public service feedback to achieve the goal of accurate evaluation.

Some ideas have emerged at this stage, mainly because SPP is a multi-agent participation process and is influenced by multiple drivers. It is likely to be complex, and the needs and interests of stakeholders can be seen as playing a key role in SPP. Public procurement wants to create public value. Understanding and satisfying public demand is not limited to administrative and economic fields. It needs to be integrated into more theoretical support in the fields of psychology, sociology and public governance. These ideas will be followed up in the literature, trying to relate them to the research questions and goals mentioned earlier in this chapter.

The second chapter of this research will extract the theoretical basis of SPP analysis from a series of literatures focusing on SPP theory and practice.

It has been emphasised that the system is a way of material connection, an organic collection with specific functions combined by several interconnected and mutually constrained components. The system-based research method is to treat topic or focus as a system, analyse the structure and function of the system, and study the relationship within the system, the elements and the environment, and the regularity of the changes. As a philosophical methodology, it provides a new tool for social science research.

Internal factor is a core feature of the development of management philosophy, and it indicates how development happens. First, the ultimate goal of SPP is to meet the growing public service demands of the public. At the same time, the participating entities can obtain the expected valuable things from the participating synergy mechanism, and the satisfaction of the stakeholders' respective needs and interests contribute to the internal motivation and traction. Secondly, the implementation of SPP should maintain the same goal, that is, the intention of the participating parties to promote the SPP. This consistency is not only reflected in linkage of the participating entities' interests through the operational mechanism of cooperation, competition, and checks and balances, but also in the initiative of stakeholders, the fundamental source of development, participants' willingness, commitment, ability and self-motivation (Delmonico et al., 2018; Huang et al., 2016).

Because the previous research on the motivation mechanism of SPP development in primary health service is very rare, the theoretical research on this issue is also lack of system thinking. In response to SPP, the public's needs and purchasing preferences are often ignored (Keulemans & Van de Walle, 2017; Roman, 2017), and it is still not able to provide sustainable,

fair and comprehensive access to people who are difficult to access at the right scale. The call for health care could better use qualitative research methods for the characteristics of the research subjects, and conduct empirical research on the motivation mechanisms that may affect sustainable primary health service procurement, especially the demand-oriented approach to the value of sustainable procurement. A good source of this type of data could be the SPP-related personnel themselves, with a range of industry-related experience to ensure good results. Validate this conceptual framework while enriching and perfecting the theoretical system.

Therefore, this research will use system thinking and the results provided by appropriate theoretical methods as a support, using a combination of theoretical research and qualitative research to construct an exploratory and comprehensive SPP motivation conceptual framework.

### ***1.5 Structure of the Research***

This study has been divided into seven chapters.

The first chapter introduces the research questions, outlines the background of the research and its reasons, including research questions, explains the purpose and significance of the research, defines terms, analyses the advantages and limitations, and summarises the research methods.

The second chapter focuses on literature review. First, there is an overview of the formation and development of sustainable public procurement concepts from an academic perspective. This aims to summarise the existing knowledge of sustainable public procurement motivation drivers. It points out the implications of different theoretical perspectives for the study of this research, and points out the shortcomings of theoretical explanations.

In the third chapter, based on literature research, the theoretical system of SPP motivation mechanism is supplemented and perfected, an exploratory and comprehensive conceptual framework of SPP motivation mechanism is initially constructed, and the key components and operation mechanism of the conceptual framework of SPP motivation mechanism are analysed. Also, this chapter has determined the exploration direction of further research on data collection.

The fourth chapter expounds the philosophical methodology and research paradigm, and states the design and scheme, including data collection samples, processing tools, measures and processes. At the same time, it introduces the validation process and the ethical considerations of the research.

The fifth chapter introduces the reasons for selecting the case area, introduces the background information related to the research in this area, and analyses of the help and significance of this research topic and the feasibility of generalising and expanding this research.

The sixth chapter includes collation and discussion of qualitative research data. According to the main body analysis method, the discovery of the data collection and collation process and the discussion of the obtained data are discussed. Explain the main results of data research, and monitor and improve the conceptual framework in combination with category refinement.

The seventh chapter will conclude the significance of the research and the achievements of the research. It also indicates the limitations of the research, and the recommendations and design of further research.

## **1.6 Expected contributions**

This chapter has set the scene for the thesis and explored preliminary issues in SPP, especially to prove the rationality of this research, and laid the foundation for this research.

The SPP is of great significance to the sustainable development of social economy. However, current research on the motivation mechanism of SPP has not been established in a system-based thinking. Moreover, research on SPP motivation mechanism has shown focuses on the analysis of external pressure and individual factors. While there is a lack of research on discussing the function of demand. However, the complexity of SPP activities are mainly caused by stakeholders' demand and interest-driven requirements. These seem to be insufficient to support the long-term development of SPP. This research will focus on this potential gap.

There is some evidence that existing SPP research ignores the dominance of demand and ignores the key factors and complexities of people's demand and interests behind stakeholders. Government-oriented public procurement methods may lead to a disconnection from real-world needs, and this may lead to insufficient internal motivation to hinder the development of SPP.

Public procurement in the health sector is huge and related to the process of sustainable development. Research in this area is still blank and requires a broader, more integrated effort based on empirical research methods.

Therefore, this research will develop an exploratory and comprehensive system-based SPP conceptual framework that will make theoretical and practical contributions. Given the significance of SPP for sustainable social development, the development of a new SPP framework in this research may bring potential benefits to the sustainable development of countries and regions.

## **Chapter 2 Literature review**

### ***2.1 Introduction***

This research aims to design and develop an exploratory and comprehensive conceptual framework to improve SPP understanding in both theory and practice. The literature review is the core part of this research, mainly through two stages.

In the first stage, on the basis of extensive reading and understanding of relevant literature, it has collected and considered the existing research results, comprehensively summarised the possible key motivation factors of SPP, and examined the reasons why SPP failed to play its due role. The conclusion part of this chapter summarises the results of literature research.

In the second stage, credible evidence is found from the existing literature research, the theoretical orientation of this research is proposed, the conceptual framework is constructed based on this theoretical foundation, and logical arguments are listed to prove the viewpoint on a certain topic, thus pushing the research forward (this is realised through the third chapter of this thesis). This is also regarded as an integral part of the literature review.

This chapter addresses research objective 1 – ‘To discover the possible gaps and core factors in SPP motivation research, and determine the problems that need to be considered in research’, and will help to focus the research question and objectives.

Research objective 2 – ‘To design and construct an exploratory and comprehensive conceptual framework of SPP motivation and improve the theoretical and practical understanding’. This chapter will explore the nature

of such a conceptual framework and what concepts may be used as the basis for the framework's progress.

By establishing the exploration direction that emerged in the literature review, Research objective 3 – 'To determine the structure, key components and functions of the SPP motivation conceptual framework', has been basically created.

This chapter also provides a basis for exploring the value and role of demand orientation in the conceptual framework of SPP motivation by assessing the complexity of SPP stakeholder roles and the importance of demand orientation. It is the theoretical foundation to achieve research objective 4 – 'To explore the value and role of demand orientation in SPP theory and practice'.

## **2.2 Research on SPP motivations**

Literature research has conducted 'unstructured scanning' and 'structured search' (Laursen & Svejvig 2015), drawing on the literature review suggested by Montoya-Torres & Ortiz-Vargas (2014) in five stages: problem formulation; location research; learning selection and evaluation; analysis and synthesis; report and use results.

SPP motivation mechanism research, as a social science research, is developed from previous research and has coherence in knowledge system. Paying attention to the accumulation of previous studies is a necessary condition for exploring theoretical depth and promoting theoretical development.

In the past 10 years, the academic and practical literature related to sustainable development, SPP and public governance has shown rapid growth. Therefore, the way to expand literature research is to use the

relevant authoritative databases such as 'ABI/INFORM Collection', 'Scopus', Emerald Journals', 'CNKI Academic Literature General Database CN' and 'Pub Med' to consult the professional literature and relevant academic researches on public procurement (PP) and SPP from 2008 to 2018.

Among them, the keyword of 'public procurement' searched by ABI/INFORM Collection resulted in over 15,000 articles respectively. The search of 'sustainable public procurement' resulted in over 6,000 files. Meanwhile, based on Chinese data of CNKI, literature searching with the keyword of 'public procurement' resulted in about 1,800 studies and about 140 researches on 'sustainable procurement'. On this basis, part of the information in the 'unstructured scanning' is extracted and reorganised, and then the data with a particular structure are searched continuously.

The method to determine the criteria for inclusion/exclusion of documents is as follows: Firstly, read the title, abstract, introduction and conclusion of the retrieved documents, and reject the documents completely inconsistent with the research issues. Secondly, browse the full text of the literature and extract the key information that meets the research problems. Finally, the criteria for inclusion and exclusion are determined.

One of the earliest definitions of the concept of sustainable development is the Brundtland Report (WCED, 1987). Development that meets the needs of contemporary people without compromising the ability of future generations to meet their own needs. One of the most important concepts is 'meeting needs' and the other is the ability to meet current and future needs. This research also takes this as the main line and determines demand-oriented SPP as the direction of literature search. This field of literature is particularly critical, so documents related to SPP are further filtered through manual search requirements.

Literature research aimed at the mainstream, with emphasis on abstracting essential viewpoints and discussions from core journals, classic works, mainstream literature and practical research reports of professionals in relevant fields. For example, the Journal of Cleaner Production, as a representative of sustainable research journals, is one of the top international academic journals in this field. Its content includes relevant research on production and circulation in the context of sustainable development. Its purpose is to analyse the development trend of current disciplines and provide intellectual support and theoretical basis for policy formulation. The Journal of Cleaner Production also contains a large number of articles on public policy research.

After finding 'classic' articles, a follow through search has been applied to find more valuable references. For example, Helen Walker's research has significant influence on this research. Between 2007 and 2018, she published more than 10 papers that have been leading research findings in SPP field, and contributed to explore and discuss several theoretical and practical problems. Her research covers the concept of SPP, motivation and resistance factors, environment, organisation and psychological impacts as well as the influence of multi-disciplinary (including health issues) analysis.

Walker et al. (2009) constructed a framework that reflects the significance of the scope and nature of relevant SPP policies and analysed the factors that promote and hinder public sector procurement. Based on Helen Walker's research, it has not only inspired this research design, but also provided clues for further literature research.

The study of SPP motivation in the field of primary health service is an multi-disciplinary field, so that it could be sufficient to implement multi-subjects, interdisciplinary and exploratory research to determine the common problems in SPP. Search the mainstream publications in related fields, and

use keywords to search respectively. The retrieved literatures can be divided into five categories.

The first category covers sustainable supply chain and sustainable procurement, which focuses on different fields and topics of public policy and public procurement. For example, *Journal of Purchasing & Supply Management*; *International Journal of Procurement Management*; OECD Publishing, Paris. With the help of keywords such as sustainable development, public procurement, SPP, triple bottom line, demand-driven and green procurement, a number of new keywords were discovered and added into further searching process. Research, like Meehan (2017) – ‘The long shadow of public policy; Barriers to a value-based approach in health care procurement’ has offered valuable understandings for both theory and practice.

The second category is analytical journals that discuss strategies and operational strategies from the perspective of policy analysis, such as: *Business: Theory and Practice*; *Public Money & Management*; *International Journal of Operations & Production Management*. Keywords such as public procurement supply chain, sustainable supply chain management, stakeholder theory, demand orientation, strategic procurement, integration, and motivation factors can be used to obtain closely related literatures to this research. For instance: Brammer and Walker (2011) – ‘Sustainable procurement in the public sector: An international comparative study’. It has constructed a conceptual framework of SPP drivers through large-scale empirical research, which provides significant help for this study.

The third category of journals focuses on the relationship between public policies in the health service field and other disciplines, such as *Health Communication* and other journals. Using keywords such as primary health services, primary health service procurement, purchase of primary health

service, community health services, basic medical needs, health justice, etc. In particular, literature related to SPP in the medical field has been focused.

The fourth category is the journals of public administration and political science. For example: Journal of Accounting and Public Policy; Journal of Policy Analysis and Management. It has been relied on keywords like public values, public services, public governance, public participation, public procurement subjects, coordination, ethics, human rights, good governance and other keywords, to explore the significant changes of the economy, politic and society in various countries and the impact of government actions in public policies. It also focuses on analysing the relationship between SPP and public policies.

The fifth category of journals comes from the field of psychology. For example, Disability and Health Journal. The objects of the social science are human behaviours and the community created by integrated individuals' behaviours. It is a complicated event triggered by human intentionality and involves the inner mental factors. Using keywords such as organisational behaviour, values, culture, TPB, and etc., to obtain professional research in this area has provided enormous valuable resources.

Based on the determined the scope of journals, literatures have been screened through strict inclusion and exclusion criteria determined for search strings, in order to conduct more targeted research on the motivation factors of SPP. Studies with the following characteristics have been taken as the scope of research on the motivation mechanism of SPP: First, the research on the motivation forces of SPP. For example, research on the driving or hindering factors of SPP, the concept of SPP, relevant policies and regulations, SPP strategy, organisation, procurement personnel and paradigm; Second, research on demand-related discussions, namely, research on public demand, health demand, SPP and demand, demand discovery, demand satisfaction and stakeholder demand; Third, the research

on the SPP in primary health service. For instance, research on procurement policy, procurement system, experience summary and policy comparison in health service fields; Fourth, research on public governance. Keywords and focuses are: governing concept, government functions and responsibilities, management system, social participation, public procurement policies, etc.

This research involves government-led strategy and has a strong sense of policy. To avoid bias in the research conclusion, the types of literatures have been expanded to include government documents, conference papers, statistical data and relevant archives. Check the websites of relevant international and national government organisations. For example, the World Health Organisation website (WHO 2008-2018) and the World Health Organisation Annual Report are critical references to this research. Through an in-depth understanding of the professional and practical studies, analysis of the past experience, policy research and future prospects of WHO in the field of public health and primary health care will help to carry out a more in-depth research.

In addition, this research selected Beijing, China as an example. It is significant to consult official websites of relevant government organisations, the government procurement network (<http://www.ccgp.gov.cn/>) and the official websites of the China Health and Family Planning Commission. In addition to literature searching process, retrospective method has also been adopted to list the references of important researches. It has been discussed with professionals and expanded throughout the research.

During the literature research, structured search has found that the concepts of 'drivers', 'enablers', 'drawbacks' and 'pressures' have been widely used in the existing literature. Some studies have explored the significance of participation in specific levels of SPP (Walker, 2011; Roman, 2017; Islam et al., 2017). These studies have discussed the motivation or obstacles of implementing SPP from the perspective of the outside of the organisation.

There is still ongoing discussions on the motivation factors of SPP and no clear consensus has been reached (Delmonico et al., 2018).

However, there are controversies over the functional interpretation and definition of SPP (EuropeanCommission, 2016); How the relevant government responsibilities should be interpreted and defined (Keulemans et al., 2017; IISD.2018); The different understanding of functions and roles among SPP stakeholders (Gillingham, 2014); No clear consensus on the understanding of SPP motivation and orientation (Delmonico et al., 2018). Moreover, previous studies on SPP have tended to simplify the concept of SPP into simple environmental improvement (Witjes et al., 2016). And theoretical research on SPP in the field of health service is still limited (Mackintosh, 2018; Montalba'n-Domingo et al., 2018).

Inspired by existing literature research findings, it has responded to the call for more research in this field which procurement should be in response to the evolution from merely being seen as a clerical function to a complex strategic decision (Kaur & Singh, 2019). It has been believed that for the motivation mechanism of SPP, studies on external power, internal power, attitude and behaviour of stakeholders are indispensable. It is necessary to further broaden the research field and adopt a comprehensive strategy to comprehensively summarise and review the obtained literatures and materials based on relevant disciplines or topics.

### **2.2.1 Conceptual and functional motivation explanation**

Explaining the motivation mechanism of SPP from the perspective of concept and functional concerns have a core issue – what is sustainable procurement for the main participants or decision makers (Luttenberger & Luttenberger, 2017; Walker et al., 2012). The problem is how public procurement should function, and how these concepts and functions promote SPP. There are two research paths in explaining the problem.

### ***Driver - the changing concept of SPP***

Due to the in-depth excavation and enrichment of the concept of SPP, it has affected people's mainstream idea to solve today's social and economic problems, and promoted the SPP practice and research.

Looking back at the SPP development process, this theoretical explanation has been verified by facts. For example, the term 'development' was originally defined by economists as 'economic growth' and public procurement was only a purchase activity that government created demand or meet its own needs. They have now transcended into a new more profound and richer level – sustainable development (CHINAPOPULATION, 2012). Sustainable development is to meet the needs of current development without damaging or unbalancing the ability of future (OECD, 2001, 2017). The concept of sustainable development has led to enormous discussions and research. According to the United Nations statistics, 150,000 studies that showed their focuses on sustainable development in 2012 (Riahi et al., 2014).

Environmental resources used to be considered as inexhaustible. As the understanding of the environment has rapidly changed, environment has been regarded as a resource that governments started to assess the cost of environmental losses and considered ways and solutions for eliminating environmental impact throughout social and economic development. As a result, the concept of 'green public procurement' (GPP) became popular (UNEP, 2008). The public procurement policy has undergone significant changes, and the government has taken the lead in implementing GPP to give full play to its active guiding role in the social economy. The European Union (EU) has developed the Green Procurement Guidelines, which explicitly require the implementation of environmental protection policies

(Dale-Clough, 2015; Zhang, 2014). Most member states implement the GPP National Action Plan and develop specific implementation measures, and manufacturers that influence environmentally friendly products are based on demand (Kumar et al., 2017).

With the implementation of GPP in more countries, research on GPP practices has received sustained attention (Liu et al., 2019). The academic community believed that environmental awareness of public purchasers and the promotion of GPP technology and procurement knowledge are the biggest drivers of green procurement (Delmonico et al., 2018).

Green public procurement plays a vital role in protecting the environment, guiding public green consumption, and promoting economic growth and gradually improving the situation of environmental degradation (Ahsan & Rahman, 2017; Qiu, 2016; Rainville, 2017). However, some sociologists and ethicists have questioned that economic development and environmental governance have not benefited everyone which hardly made society sustainable (Friedman, 2013).

Some scholars pointed out that the two concepts of GPP and SPP are often used for the same purpose. Although previous research on sustainable development aims to solve environmental and socio-economic problems for a long time, the literature on sustainability mainly focuses on environmental issues, often SPP concept is reduced to a simple environmental improvement (Witjes & Lozano, 2016). A review of practical SPP research between 2000 and 2017 showed that the topics covered were broad and that environmental/green topics were better than social procurement and supply issues (Pacheco-Blanco & Bastante-Ceca, 2016; Punch, 2014).

At the 2016 United Nations Summit, the SDG (United-Nations, 2015), called for environmental protection and energy conservation, and protection of workers under national policies and priorities for SPP. The right to take

strategic measures such as caring for backward areas is included (United-Nations, 2015).

Under the new SPP concept, ecological, economic and social aspects have equal weight and importance. The inclusion of sustainable development elements in green public procurement should be carried out consciously and consistently manner because of the sporadic application of environmental standards. Actions have not brought any expected results (Kozik & Karasińska-Jaśkowiec, 2016).

Some countries use social standards to promote green procurement (Pacheco-Blanco & Bastante-Ceca, 2016; Rainville, 2017), ensuring respect for social needs, and promoting and supporting outcomes in terms of discrimination, human rights, and labour standards. Procurement has no longer been seen as a purely market transaction (Harland et al., 2013), and sustainable procurement is not just to eliminate the negative consequences of production and consumption (Grandia, 2016). Instead, procurement could extend economic, social and environmental requirements into a broader social policy goal, in order to achieve the aim of 'creating social outcomes' (Furieux & Barraket, 2014; Grandia et al., 2015). Public procurement in European countries has accounted for more than 19% of gross domestic product (GDP) (EuropeanCommission, 2015; OECD, 2017). In China, the scale of government procurement has continued to proliferate. In 2017, the procurement volume reached 321.143 billion Yuan, an increase of 638.29 billion Yuan over the same period last year, an increase of 24.8%, accounting for 12.2% and 3.9% of the national fiscal expenditure and GDP (CCGP, 2016, 2017).

The change of concept is an internal factor for SPP promotion, and it turns out that the change of concept affects the perception and behaviour of purchasing entities (people and organisations) on sustainable procurement.

### ***Driver – conceptual recognition on SPP functions***

Public procurement has increasingly become an essential function of government organisations to achieve government functions and effectively distribute public resources (Gadde et al., 2010; Hasselbalch et al., 2014). The most direct and effective way to promote public procurement is to establish a functional system for public procurement (Jiang & Zhang, 2014). The promotion of sustainable public procurement stems from the continuous digging and diffusion of public procurement functions.

Some scholars divide the functions of government procurement into two categories: 'general government procurement' and 'policy public procurement' (Ju, 2013). The fiscal function of the early government was mainly to raise funds for government activities (Nie & Cai, 2007), emphasising basic economic functions and improving efficiency. Contemporary public procurement has been used as a tool to improve the distribution of public resources, the quality of public services, and good governance (Osei-Kojo, 2017). With 'value for money' as 'value', SPP is more comprehensive and plays a policy role in promoting sustainable development.

The public procurement market is becoming the largest commercial sector in the world. The proportion of government procurement expenditures in OECD developed countries showed an overall upward trend. Government procurement has become one of the primary means of budget implementation in OECD countries (Zhang, 2018). Not only does the government wield enormous purchasing power to influence the behaviour of the private sector, but it can also act as a lever to achieve broader policy goals.

With the continuous expansion of the government procurement function, SPP has been broadened and enhanced. Several countries have explored problems in certain economic and socially sustainable developments and begin to link public procurement with sustainable development from a national strategy perspective in order to formulate corresponding SPP policies and plans (DEFRA, 2007; Qiu, 2016). In the European 2020 Strategy, strategic public procurement gives more meaning and focuses more on innovation and other public policies, including education, public health, and non-discrimination in gender, ethnic or religious backgrounds (EuropeanCommission, 2010). When SPP is used as a strategic tool, not just as an administrative function, it promotes the development of SPP to a higher level (Quak et al., 2019).

Based on above, interpretation of conceptual and functional perspectives, focusing on the concepts and ideas of core participants in SPP, analysing how these concepts change and how procurement entities understand the rationality of procurement functions and institutional arrangements to promote SPP development. It has been highlighted that SPP has significant influence on SPP practice which has inspired further focuses in this research. Research has found the potential gap in current research within this field and will explore more analysis later.

### **2.2.2 Environmental motivation explanation**

Explaining the motivation mechanism of SPP from the perspective of environmental pressure is a kind of research path that many researches have chosen (Ferri et al., 2016; Meehan & Bryde, 2011; Yüksel, 2012). The core logic is that the existence of different public procurements is driven by the nature and pressure of the environment. Follow this logic, scholars regard the progress and change of sustainable procurement as entire

determined by the specific environmental elements and attributes, and to find the most appropriate type of public procurement in dealing with specific environmental pressures.

Some scholars have developed a conceptual framework based on empirical research, analysing stakeholders, SPP policy cognition, financial resource status, leadership, organisational culture and ability to implement strategic plans, and drivers of sustainable public procurement (Brammer & Walker, 2011; Gelderman et al., 2006; Walker & Brammer, 2009). Studies have focused on how public procurement policies are implemented into practice. A large number of scholars have participated in the research on the pressure and driving factors of public procurement environment, using different methods to identify the critical factors from several influencing factors (Bratt et al., 2013; Giunipero et al., 2012; Melissen & Reinders, 2012; Preuss, 2009).

### ***Driver – political motivation***

Scholars believed that the essence of public procurement is a concept of politics. Grandia and Meehan (2017) explained that the political environment consideration could help systems of public procurement to develop a broader context of history and ongoing social and political change. Many scholars believed that law factors are the main factors driving SPP, and actively advocate the government to use political means to promote sustainable procurement (Hasselbalch et al., 2014; Smith & Terman, 2016). For example, the government should require particular mandatory implementation of SPP for all departments in order to create a sustainable environment in practice (Ahsan & Rahman, 2017), and encourage the purchase of green commodities through the implementation of sustainable procurement. Studies pointed out that step to achieve sustainability may

benefit from governance approaches, and institutional pressures have a driving force for SPP (Hueskes et al., 2017). If sustainable practices are seen as legitimate institutional and stakeholder expectations, an organisation is more likely to institutionalise it within its structure and in its actions.

Promoting SPP through improving legislation and the establishment of a safeguards system is particularly typical in the field of public procurement. For example, the United Kingdom established a relatively complete public procurement legal and institutional system earlier (Yao, 2006), including general contract, commercial law and special legal provisions that stipulate statutory public procurement responsibilities and norms. The implementation of these regulations has made the UK a leader in the world of SPP (Li et al., 2014). From the perspective of SPP practices in the countries around the world, the lack of supporting legislative mandates or incentives at all levels of government may significantly resist the development of a favourable framework for adopting and promoting sustainable practices (Hasselbalch et al., 2014; Smith & Terman, 2016).

In addition to laws and legislation, relevant policies are widely recognised as one of the strong drivers of SPP. As a national governance tool, policy also embodies a specific governance structure in its promulgation and implementation process (Zhang & Zhao, 2015). The level of policy institutionalisation has an essential impact on the implementation of procurement behaviour and the realisation of objectives (Yin, 2017). First of all, a complete policy framework means that the government makes commitments in this field, usually with clear objectives for governance. Secondly, policies usually have the goal to achieve on the basis of specific methods and measures. Finally, the policy framework may become an essential basis for attracting stakeholder participation. For example, procurement policies may promote environmental-friendly technologies and

products (Andrecka, 2017), and encouraging the use of recycled materials and minimise waste generation (Testa et al., 2016).

Apparently, there are also different opinions on the formulation and implementation of policies as a driving factor for SPP. Some opinions have pointed out that certain policies are not sustainable goals (Leiter et al., 2011). For example, strict environmental controls could raise the cost of production, so that companies could tend to choose their markets where environmental resistance is low. Some studies believed that the conflicts of values often lead to debates in policy design and implementation. Different ideology and theoretical basis highlight various social policy and support various political claims. For example, Loader (2007) and Bukarica and Robić (2013) summarised and sorted out the laws and policies related to public procurement in the country, and found that the current procurement concepts and policies are not all conducive to the development of SMEs, it is necessary to re-examine the connotation of 'value for money'. HM-Treasury (2007) pointed out that SPP should not only benefit the public, but also benefit taxpayers. Chirinko and Wilson (2011) and Tang (2016) believed that governments will reduce the environmental supervision, reduce the tax burden, reduce the social cost of the imported enterprises, and lead to the deterioration of the local environmental quality and the emergence of 'Race to the Bottom' (RTB).

Combining these different perspectives can be found, the main reason is that the SPP involves the complexity caused by stakeholders, and the SPP orientation and stakeholder interests determine the motivation or resistance of the SPP internal. SPP drivers come from stimulating internal and external demand, and government legislation and stakeholder satisfaction are the most critical external sources of power (Zaidi et al., 2018). The organisation and procurement participants' willingness and ability could become an important internal motivation (Grandia, 2016; Hasselbalch et al., 2014).

### ***Driver – economic motivation***

Public procurement is the implementation of the government expenditure policy. The mechanism and role of procurement policy must be restricted and determined by the nature of fiscal policy (Zhang, 2015). Firstly, the government can implement the purchase of goods and services for the pursuit of sustainable policy goals. Government contracting is often used as a soft law mechanism to promote sustainable procurement to achieve its goals (Howe, 2010). Secondly, the government can regulate market operations through changes in taxes, expenditures, and various other fiscal policies, and maintain rules and regulations for the implementation of the regulation (Zhu et al., 2013). For example, through the budgeting of science to ensure the effective use of resources (Liu et al., 2009); through tax regulation and financial subsidies, incentives for operators to promote organisation SPP practices (Proença & Aubyn, 2013; Zhu et al., 2013). Improving the payment system is also conducive to implementing SPP, which could improve social equity and maintain long-term political stability, and achieve social sustainability goals (Edler & Georghiou, 2007).

Studies also pay close attention to the public procurement fund guarantee and cost efficiency factors. From the perspective of economics, resources are scarce, all government entities are sourcing under strict budget constraints, and governments at all levels are under increasing pressure to 'do more with less'. The primary goal of public procurement is to increase the efficiency of the use of public funds, and to reduce costs, such as selecting the most economical suppliers and reducing the cost of materials and services purchased (Reuter et al., 2010).

'Low price' was once the single goal pursued by public procurement, resulting in low procurement quality. The 'value for money' goal, which does

not take price as the sole consideration, was proposed at the end of the last century. 'Value for money' is the optimal combination of cost and quality throughout the life cycle of a product or service to meet the needs of users.

From the 2011-2016 new round of the four major international government procurement rules (the United Nations 'Public Procurement Model Law', WTO 'Government Procurement Agreement', EU public procurement order system and World Bank procurement rules) revised, no exceptions written 'value for money' to it. Sustainable procurement requires a broader social and economic goal (Jiang, 2014), and the goal is not the lowest bid price but measures the sustainability of organisational performance based on 'triple bottom line' (Henriques & Richardson, 2013; Savitz & Weber, 2006).

However, fiscal policy does not all contribute to sustainable procurement. For example, in a large-scale survey, all mandatory sustainable action goals, as well as most of the priority categories, are environmentally focused, and there seems to be no prioritisation of the social aspects of sustainable procurement (Silvestre, 2015). The financial costs involved in promoting sustainable procurement are another decision-making rule for each organisation. Kipkorir and Wanyoike (2015) and Zaidi et al. (2018) argued that budgetary constraints result in high procurement costs and, therefore, the support or impediment of budget support and economic returns to public sector SPPs is essential. Some scholars pointed out that the direction of the improvement of the public procurement system should be to give full play to the role of public procurement policy tools, and should not be restricted to the narrow scope of improving the efficiency of public procurement funds (Yu, 2009).

These questions reflect that the impact of any policy and regulation on SPP is not singular and may involve an intricate environmental system and governance structure (Li & He, 2009). The primary will of public

procurement policy makers and purchase implementers is not due to environmental pressures. External factors of public procurement are fully concerned, while internal factors of institutions are easily overlooked. Rolfstam et al. (2011) and Petersen and Kadefors (2016) emphasised the significance of internal factors of institutions involved in innovative public procurement.

### **2.2.3 Organisational and supply chain coordination motivation**

From the perspective of organisational theory, the interpretation of SPP is in fact intertwined with the discussion of the above two perspectives, because it often involves the change of ideas, organisational functions, the competition of interests and other factors that drive public procurement. However, the interpretation of organisational theory places more emphasis on the organisational attributes of different types of organisations and the impact of membership on sustainable procurement.

Based on the perspective of organisational concern, current studies mostly followed two aspects: sustainable supply chain procurement and public procurement organisations. Literature suggested that there is a specific relationship between drivers and corporate procurement practices that are related to the organisation's position in the supply chain.

Sustainable procurement is considered a critical practice in sustainable supply chain management (Mani et al., 2016). The changes in today's public procurement rules are characterised by a focus on the top of the public procurement system design, put public procurement under the framework of sustainable development, with 'value for money' as the institutional goal. SPP chain management is not limited to the procurement process itself, but extends to procurement demand management and backwards to contract management. In the formation of procurement demand, extensive

consultation with experts or suppliers, improve the preparation of bidding documents, make it more professional, and reduce the risk of bidding failure (Jiang, 2018).

Regardless of the model adopted by public procurement, it is made up of a particular number of stakeholders (Pandey & Gupta, 2017). Stakeholders are entities that may affect or be affected by the procurement process, including governments, investors, beneficiaries, suppliers, and individuals or organisations throughout the procurement (Xia, 2019). Stakeholders have been identified as an important driver behind the organisation of sustainable practices (Jaehrling, 2015; Keulemans & Van de Walle, 2017; Xia, 2019).

Coordinating the collaboration between the organisation and the supply chain partners is a crucial factor influencing the promotion of SPP (Grimm et al., 2016). For example, cooperation between buyers and suppliers throughout the procurement process can reduce raw material waste while promoting the development of new and more sustainable business models (Witjes & Lozano, 2016). Retail companies need to remain flexible in selecting suppliers and carriers based on comprehensive standards such as reliability, quality, service levels and sustainability to overcome any interference (Kaur & Singh, 2019). Integrate environmental thinking into all phases of supply chain management, procurement management operations, from raw material extraction and acquisition, product design, material procurement and selection, production, and the final product delivery should all be managed until the end of the product's useful life and terminated by the customer to achieve sustainable supply chain and procurement (Soda et al., 2016).

Roman (2017) argued that as an open system, organisations should be aware of and meet the expectations of their stakeholders. For example, the green performance industry ranking can stimulate the positive response of

key stakeholders, which will win the organisation's favour for more environmentally conscious customers, and help to organise long-term interests and development.

SPP needs to pay attention to stakeholder analysis and properly handle and properly meet stakeholder appeals. Some scholars start with the interdependent background drivers to divide the drivers in the supply chain into: drivers related to stakeholders, process-related drivers, and product-related drivers, and reveal the impact of these drivers. The extent to which suppliers implement sustainable development efforts.

The public and customers are essential stakeholders in the supply chain, although earlier studies have shown that customer expectations are an important driver of society and environmental supply chain considerations (Worthington et al., 2008). Meanwhile, customer public knowledge (capabilities) and personal will have a positive relationship on green purchases (Kanchanapibul et al., 2014). Customer pressure has a significant positive impact on R&D investment and collaborative networks (Huang et al., 2016). However, little is known about the propensity of citizens to bid for newer purchases or to use bids other than price (Keulemans & Van de Walle, 2017). Citizens actually have opinions on how to make purchases, and they are the most critical SPP drivers. Demand-oriented SPP research is in urgent need of further study.

In 2016, the World Bank released the New Procurement Framework and established the Project Procurement Strategy for Development (PPSD) to ensure the identification and implementation of procurement requirements throughout the project implementation process. Procurement activities maximise the project's expected goals (Xia, 2019).

Procurement requirements are seen as the specification of project objectives in procurement activities and are at the heart of procurement activities. In

procurement activities, procurement requirements are both the basis for supplier response and quotation, and the basis for purchasing people's decision-making. It largely determines the success or failure of procurement activities and the effectiveness of project execution. The Bank believes that the early stages of project planning are the best time to achieve value for money (Xia, 2019).

Other studies on SPP have been conducted for public procurement organisations (Bratt et al., 2013; Melissen & Reinders, 2012), analysing the impact of organisational factors on sustainable procurement, but few studies have tested the relationship between factors (Testa et al., 2012; Zhu et al., 2013).

It has been a widely accepted framework to explore the driving forces and obstacles of the company's implementation of SPP-related practices from an external and internal perspective (Krause et al., 2009; Zhu et al., 2008). External factors of organisations include legislation, customers, and competitors, while internal drivers include organisational awareness, reputation, cost, and support from top management.

Besides, leadership is another important factor in the implementation of SPP. Brammer and Walker (2011) showed that top management's attitudes and commitments to sustainability have significant impact on the implementation of SPP as well as whether the leadership team set sustainable development into corporate strategic goals (Ahsan & Rahman, 2017; Huang et al., 2016). The extent to which an organisation accepts and supports sustainability is usually related to the culture of the organisation (Walker & Brammer, 2009). Due to cultural differences, not only organisational management could support different strategic plans, but organisational and organisational changes would also be different. Doh and Quigley (2014) explored the relationship between stakeholder theory and

responsible leadership, it is recommended that responsible leaders use the expertise and organisational intelligence to influence organisational outcomes (Delmonico et al., 2018). Some studies have demonstrated that inner-organisational collaboration is a crucial element of value achievement. Moreover, decisions, directions and attitudes are products of deep-rooted ideological backgrounds that often constrain organisational progress (Matthyssens et al., 2016).

Recent research has progressed that factors derived from organisational internal importance play an essential role in sustainable procurement implementation, and the extent to which buyers' sustainable procurement behaviour depends mainly on their individual beliefs and attitudes. Procedural justice and a vision of compliance are all factors that the organisation itself develops. However, research in this area is still minimal (Grandia et al., 2015).

Studies in some purchasing organisations have demonstrated that human factors in the organisation are potential sources of power for SPP. (Yook et al., 2018) conducted a study of 239 Japanese companies and found that motivation and operational green procurement capabilities have a positive impact on environmental and economic performance. Grandia (2016) found that employee behaviour is an intermediary between organisational factors and SPP performance, and that the buyer's behaviour will be the mediator between the organisational factors and the SPP level of implementation results. In order to increase the application of procurement measures, public organisations should focus on increasing awareness of sustainability and the environment, emotional commitment to change and sustainable procurement practices.

Other studies in relevant government organisations have also verified the human-involved impact in SPP. The awareness of officials and the knowledge

of GPP expertise and their support for SPP determine the results of local government GPP practices (Liu et al., 2019; Testa et al., 2016). This is also confirmed by other studies based on developing countries (Delmonico et al., 2018).

Grandia (2016) pointed out that the importance of implementing sustainable initiatives and procurement, willingness or commitment. Based on motivation and expected return, employees establish a specific behaviour in terms of available public procurement. For example, employees believe that buying green items requires more effort and time than traditional purchasing, so sometimes they will consider additional rewards for extra efforts (Meehan & Bryde, 2015).

With the consideration of stakeholders' interest-based behaviour and performance, Theory of Planned Behaviour (TPB) has been applied to a large number of research work. Promoting healthy behaviour is a centre for health communication scholars in many countries (Chung & Lapinski, 2019) and is used to determine how to encourage consumers environmental behaviour (Úbeda-Colomer et al., 2019). TPB believes that human behavioural decisions are influenced by the surrounding environment and other individual behaviours, and the individual behavioural attitudes, subjective norms, and behavioural control cognition determine the individual's behavioural intentions. Attitude toward behaviour, that is, the degree to which behaviour is positively or negatively evaluated; subjective norms, participation or non-participation are related to social pressure; perceived behaviour control, how much effort is required to perform behaviour.

With the theory of TPB, it could deeper analyse the internal driving force of SPP behaviour of individuals and organisations, and find ways to promote harmony and encourage stakeholders to adopt SPP consistent behaviour. The influence of people's behavioural intentions and their perceived

behavioural control. When people have intentions and feel behavioural control, they are not only more likely to show the desired behaviour, but when they have the necessary skills, knowledge and motivation, their performance will be better (Vermeeren, 2014). The relationship between individual behavioural intentions and the ultimate behaviour of the behavioural subject is very high (Ajzen, 2002, 2006; Úbeda-Colomer et al., 2019).

The existing literature research, on the one hand, puts SPP in the supply chain and pays attention to the interaction of stakeholders. On the other hand, it pays attention to the performance of SPP organisation from the perspective of the organisational entity that undertakes SPP. The researchers make the factors that promote the impact of SPP explanation. It can be seen that the stakeholder and organisational factors involved are relatively broad. It broadens the horizons of relevant research and has a good hint. However, the relevant literature focuses more on the promotion and adaptation of external pressures, while in-depth research on internal driving forces is relatively scarce.

## ***2.3 Motivation of Primary health procurement***

### **2.3.1 Characteristics of primary health procurement**

Healthcare has become one of the largest areas of expenditure in public procurement (Walker, 2015). Among them, primary health care accounts for a large proportion of public goods and quasi-public goods. However, theoretical research on SPP in this area is still limited (Mackintosh et al., 2018).

In the earlier discussion of the SPP, Walker and Brammer (2009) took the lead in conducting a rare study on GPP in the health sector, identifying

several challenges and drivers for sustainable procurement in the UK. Ahsan and Rahman (2017) investigated the challenges of implementing public green procurement (GPP) in the Australian public health sector. Their research reviewed the existing literature and proposed a framework for implementing GPP in the public health field, including five green procurement categories and 16 challenges. These studies on SPP motivation mechanism in this field provide a good inspiration.

Although primary health care has a deep-rooted link with sustainable development, according to WHO (2018), it has to be admitted that since the creation of WHO 70 years ago and the adoption of the Almaty Declaration 40 years ago, the dream of 'everyone can have health care' still remained unaccomplished. Inequality in health services is not only between countries but within countries. The national average can mask the low level of health service coverage of vulnerable groups (WHO, 2018).

Compared with the environment, energy and other fields, the more prominent pressure of SPP in the medical field is social. In the past 20 years, countries around the world have continuously increased their health investment, and strived to improve medical and health procurement and services. While the total amount of resources has increased, as the distribution of results and costs has been unfair, still resulting in a growing polarisation (Rawls, 2009; WHO, 2018). Therefore, calls for maintaining health and justice such as 'human rights' and 'government responsibilities' have generally risen. The fundamental driving force of SPP in the primary health field comes from the understandings like – Health is a basic human right, and governments should perform their duties and are essential to achieving the 2030 Agenda for Sustainable Development (WHO, 2017).

### **2.3.2 Literature on primary health procurement**

The research literature on the motivation mechanism of SPP in the health service field is scarce. This research attempts to fill this gap and collects the research related to SPP in the field. However, current works of literature on the primary health SPP showed similarities.

The first motivation is the change in value. Health is both a consumer product and a capital (Richland, 2010), which is the basis for human survival and development. The achievement of health goals also reflects the success of many other goals of sustainable development (Chen, 2016). The concept of development based on human rights has been established in the international community and has become the dominant development policy in the medical field (Kindornay et al., 2012; WHO, 2015), which has become a powerful driving force for SPP.

The goal of sustainable health service procurement focuses on improving health, not just on a disease. The goal is to provide the most primary health care for all citizens, especially to improve the health of disadvantaged people and reduce inequities, so that no one is left behind (WHO, 2018).

'Integrating health into all policies' is a commitment followed by the most governments (WHO, 2015). The consensus reached by the international community includes fair access to health resources, fair access to health services and fair access to safeguards (Shi et al., 2003). These three 'fair enjoyment' are closely related to the government's medical and health expenditures in a country. Obviously, achieving this goal is only government-led and can be achieved by adopting the most effective public procurement mechanism. Unlike other medical products, primary health service procurement is included in the government's public procurement and public security mechanisms.

The second motivation is self-recognition of government on responsibility. Achieving universal health coverage and other health-related targets require not only funding but also political will and respect for human rights. National health coverage is ultimately a political choice, and every country and national government has a responsibility to work towards this goal (Liu et al., 2007; Xiao, 2012). The government is highly responsible and does its best, which is critical. Meanwhile, political commitment will bring resources.

There is a need for a combination of health justice and sustainable health procurement policies. Implementing sustainable procurement is not an economic issue or an environmental issue. Fairness and justice can also cause political and social problems. Government responsibility and government guidance are critical (WHO, 2013). Through the universal health resolution, the United Nations urges governments to work to provide affordable, high-quality health care to all. The resolution called on member states to take a multi-pronged approach to address the social, environmental and economic determinants of health issues in order to reduce inequities and promote sustainable development (WHO, 2018). The precise definition of government responsibility and essential social and livelihood issues has prompted the SPP to receive the attention and prioritisation of governments.

Williams and Shearer (2011) argued that health care and health services are a manifestation of political philosophy. The choices made, the institutions established, and the level of funding provided depend on the social and political values that provide support. More and more national governments have re-examined the concept of governance and clarified their responsibilities, which has formed a substantial political driving force for primary health SPP.

Some studies suggested that the SPP in the health service field ensures the basic sustainable development goals of primary health procurement services through legislation and policies, strengthens institutional development, designs of appropriate organisational structures, and implements strategies to improve justice and efficiency (Uenk & Telgen, 2019). WHO (2017) believed that through the construction of economic policies and systems, development agendas, social norms, social policies and other institutions, it is possible to introduce outsourcing, compulsory bidding, public organisations in the health sector, and strategic cooperation with private companies (Lonsdale, 2012), improving public sector procurement practices and achieving health justice.

Thirdly, fiscal support and capital using efficiency are also drivers of sustainable primary health service procurement. Zhang (2018) showed that the OECD developed countries formed a scale of government procurement by fiscal function in 2015. The top three fiscal expenditures with the highest proportion of government procurement in the sample countries are health care (31.2%), economic affairs (15.6%), social protection (12.4%) and education (11.5%), indicating that the sample countries are promoting people's livelihood security. The performance of government functions is mostly carried out through government procurement. The proportion of government procurement health expenditures in Belgium, Italy, Japan and Germany even exceeded 40%, indicating that government procurement is vital in primary health insurance performance.

Although people agree that under the premise of limited medical resources, promoting sustainable procurement is the only way to achieve optimal resource allocation, however, in most countries (regions), health resources are insufficient compared to population health services (Meehan & Bryde, 2015; Mladovsky et al., 2012). How to better support with limited budgets, is a global challenge.

Some researchers have emphasised that government fiscal expenditure is the source of health funding, which reflects the status of health in the social economy. It advocates increasing financial input to promote the SPP, because the size of the budget expenditure determines the number of resources available for health. Earlier research supported this view. For example, Roberts (2003) found that the ranking of satisfaction with health service systems in most countries is positively related to the amount of health expenditure per capita. The availability of service financing is conducive to improving the poverty alleviation of the distribution of benefits.

Some studies hold different point of view. They believed that government resources are limited, and the government must consider the health goals to be achieved when formulating policies, as well as the financial reality. How much to achieve specific goals is the most important for policy makers (Gillingham, 2014). Grandia and Meehan (2017) pointed out that the procurement of the National Health Service (NHS) in the UK is facing the most significant financial challenges. In 2015, the total deficit of providers and commissioners of the National Health Service system was estimated at 1.85 billion pounds, a threefold increase from the previous year (Dunn et al., 2016). One of the roles of the SPP is to ensure compliance with regulatory requirements, prudent use of public funds, and third-party delivery of contracted goods and services (Russell & Meehan, 2014). The current challenges require the procurement of national health care systems to expand these responsibilities to promote the narrowing of the deficit gap.

These staging and arguments show that public procurement entities may have different perceptions and adopt different behaviours under the same problem or even the same environment (Papanagnou & Shchaveleva, 2018).

Regarding organisational motivation, a view of the WHO is gradually being accepted. WHO (2018) believed that because the determinants of health are

very broad and often exceed the scope of the health sector, it is necessary to work with departments other than health and adopt a 'holistic government' and 'whole society' participation policy to bring SPP with power. At the same time, people have the opportunity to influence their own lives and futures, participate in decision-making, and express their opinions on matters of concern, which is essential for sustainable development (WHO, 2013).

In summary, the specification of SPP in primary health have its own attribute. It should give more emphasises on 'who it serves' and 'what kind of service it provides that could ensure the fairness and impartiality'. Mature and effective procurement practices are likely to advance SPP development, but the scope of academic research is still limited (Montalbán-Domingo et al., 2018).

## ***2.4 Literature discussion and conclusion***

### **2.4.1 Literature review discussion**

The above review on studies of driving factors and motivation mechanism of sustainable public procurement has achieved an overall understanding. These existing studies have many valuable ideas, but there are some defects and gaps, which should be revealed with more details in this research.

First, the concept and function perspective has paid attention to the changes in values and concepts in the SPP, and highlighted the changing understanding of government responsibility and public procurement function had promoted SPP. The successful practice of social policy always includes the value pursuit and value orientation of a particular society (Cockerham, 2015). The correctness of the concept determines the effectiveness of development and even success or failure (Yuan, 2017). These studies have

essential significance and value for understanding the development of SPP. Although the conceptual function perspective emphasises subjective will and initiative, there are few studies on the role and influence of ideas on procurement functions and behaviours. Moreover, in addition to the will of the government, research on other procurement stakeholders, especially public attitudes and values is scarce (Grandia et al., 2015; Testa et al., 2012). Current research has not covered the answers of why the purchasing entities have particular purchasing decision or governance concept, and whether it becomes the common sense of public procurement stakeholders, especially the role of public demand on SPP has been ignored.

In the interpretation of a functional perspective, the core logic is to believe that the existence of different public procurement is to achieve a specific function and purpose. Under this logic, scholars regarded the development mechanism of SPP as being determined by the attributes of specific policy functions of public procurement. In response to specific types of public problem governance, matching public procurement functions and types will occur. Therefore, from the perspective of functional understanding, the generation and development of SPP can be summarised by the logic of evolution. In this way, public procurement functions could be born and developed only if they have been regarded as urgently needed to solve. However, for those procurement functions that are related to any non-urgent demand could hardly be considered by the government and hardly put into practice.

The functional perspective has its apparent limitations. It does not pay attention to whom the service subject corresponding to the SPP, and for whom the institutional arrangement of specific procurement is effective (Wynstra et al., 2018). The SPP consists of a complete legal system, a scientific operating mechanism, and mature participants. The behaviour of the participating entities together constitutes driving factor for SPP. The

main entity of SPP is the government and the organisation entrusted by the government to undertake administrative functions. In public procurement activities, it could not ignore the difference in demand from the government to different stakeholders and the public. Meanwhile, the end users' wishes are often neglected, which makes the solution unusable or inappropriate (Haukipuro et al., 2017). In fact, public procurement is not primarily intended to enhance the supply of products and services, but to address public needs or social issues (Edquist & Zabala-Iturriagoitia, 2012).

Second, the interpretation of the environmental pressure perspective, focused on the study of SPP external environmental factors and their development changes. From this perspective, external environmental pressure is the most important driving factor for SPP. However, the disadvantages of using the environmental pressure perspective is also apparent.

First of all, if SPP becomes an inner decision made by procurement entities in order to react against environmental pressures, it could hardly explain why countries have significant differences in the extent of sustainable procurement although public institutions are increasingly focusing on sustainable procurement (Walker et al., 2012). European Commission (2015) has noted that there are significant differences in the performance of countries in crucial aspects of public procurement, especially in public health service issues. The fact is there are numbers of disputes on how to explain and measure the range of government responsibility of SPP. It relates to a selection of SPP functions, while the functions have shown differences between countries.

Secondly, in the continuous expansion of SPP, the only relying on external environmental pressures while ignoring the subjective will and initiative of sustainable procurement stakeholders could make it being lack of necessary

strength in explaining the SPP pattern. In fact, the development of sustainable procurement is not the result of the natural evolution of the external environment, but the self-awareness and strategic choice of the self-interested subject. The concepts, capability and behaviours of stakeholders become the determinant factor in SPP performance which are human-based effects turning into internal motivation.

Thirdly, interpretations from the perspective of organisational theory emphasised the attributes of different types of supply chains and organisations as well as the impact of stakeholders' interaction that could provide incentives to SPP. Although such research is still in its early stages, it still has a certain explanatory power for the promotion of SPP, and it is worthwhile to be absorbed into research. In the interpretation of the environmental pressure perspective, the core logic is that SPP development is mainly due to the pressure-driven outcome of the organisation (Brammer & Walker, 2011; Walker & Brammer, 2009). However, existing research seems to ignore the discussion of internal factors in organisations and supply chain stakeholders, while ignoring the role of public procurement executors and the public.

Although some empirical studies confirm that stakeholders' participations lead to the complexity of SPP. However, on the one hand, SPP primary user and stakeholder, which is the public, has received little attention, and the role of public demand and public participation in SPP has been neglected. On the other hand, in-depth discussions on the role, cognition, emotion and behaviour of different stakeholders have been remained in fragmented. Due to the current study findings, research on SPP motivation has shown apparent limitation. SPP, ultimately serves public demand, so that it could be hard to achieve the sustainable goals without researching with clear direction or orientation. The complexity of stakeholders comes from people psychology-based behaviour. Therefore, it is significant and useful to learn

SPP motivation with the help of TPB theory and other multi-disciplinary support.

#### **2.4.2 Conclusion**

In summary, this chapter introduced and analysed the practical and theoretical background of the driving factors within SPP, and systematically summarised the literature results of SPP drivers from three different perspectives: concept and function, environmental pressure and organisational theory. It also introduces research and issues related to sustainable primary health service procurement, and evaluates existing research. Conclusions are as follow:

First, most countries in the world are actively promoting the process of SPP, and the academic interest in research on SPP development is increasing. More and more scholars are paying attention to the impact factors of SPP development, and the discussion on 'driving force' and 'obstacle factors' is getting attention. The literature has shown that there is complicated driving or resisting factors in the development of SPP, and scholars have conducted useful discussions from different angles and different fields. On the one hand, the existing research perspective is to find ways to influence the promotion of SPP, to eliminate possible obstacles. While focuses and findings were relatively fragmented, and comprehensive understanding of drivers to promote sustainable procurement has not been well-developed. Most of the literature is descriptive and motivation mechanism of SPP has not been thoroughly investigated. How these factors affect the implementation of SPP is still insufficient. Some problems in practice have not yet been resolved, and there are contradictions and disputes. On the other hand, the existing literature is limited to specific industries, and there are still gaps in some critical areas such as health care.

The formation and development of anything has a certain motivation forces. For the development of things, it is necessary not only to explore the individual driving factors, but more importantly, the principle of each kind of motivations on the development of things and the conduction process, that is, the essence of the motivation mechanism. The SPP motivation mechanism can reveal the inherent relationship between motivation and development. Therefore, in-depth study of public procurement drivers and motivation mechanism of SPP could be much more significant by further development theoretical findings and conceptual understandings.

Second, researchers continue to raise concerns about the driving force of SPP. Plenty of studies suggested that the existence of different public procurement have been driven by the nature and pressure of the environment. The study focuses on understanding the environment and context in which sustainable practices are implemented, emphasising the relationship between the organisation and external actors. These drivers are increasingly being explored, involving political factors, financial support and capital efficiency, supply chain and stakeholders, management values and capabilities.

Although external motivation has indeed promoted the development of SPP in practice, the literature study found that the primary will of public procurement policy makers and procurement implementers is not caused by environmental pressure. Changes in the ideological concept of the purchasing entity and the increase in knowledge and technology mastery will lead to the sustainable development of public procurement. These forces come from within the procurement participants. Internal factors and the involvement of stakeholders lead to the complexity of the drivers of sustainable public procurement, and the interaction of these factors is significant for sustainable procurement outcomes.

Third, demand or interest orientation. Earlier public procurement served the government's own needs and state functions, and the largest public procurement customers were national and government agencies. Early SPP drivers and drawbacks were focused on environmental issues. In this context, the public have accepted the government-leading 'top-down' public product supply model, and the response to public demand preferences is more the result of government-led, and the government has selectivity and decision-making power in local fiscal expenditure.

Now, the public procurement function is continuously expanding. More policy functions of SPP involve people's livelihood, and more market-oriented methods are involved, involving SPP multi-participants. The concept of sustainable development highlights the humanistic character of development and is a process of progressive realisation of the rights that people enjoy. Although existing studies have identified these stakeholders as important factors behind the SPP approach. However, the concept of value in SPP is inherently controversial (Williams & Shearer, 2011). Different stakeholders, including political leaders, the public, staff, regulators, and suppliers. There are often conflicting goals and requirements (Hazlett et al., 2013), and the changing political agenda exacerbates the heterogeneity of stakeholder aspirations and needs (Propper & Wilson, 2003). Behind these is the most important internal motivation, that is, their respective interests and needs, is rarely seen in this area.

In particular, demand is mostly the orientation of social production, and plays a crucial guiding role in the distribution of specific resources in society. The public is the end user of public procurement, and the public's driving force is the main factor in achieving sustainable public procurement (Oruezabala & Rico, 2012; Zhu et al., 2013). However, few attentions or research has been given the discussions in terms of attitudes, needs, behaviours, participation, and coordination. With the development of the

economy and society and the improvement of people's income level, the government must respond to the needs of citizens in a timely and effective manner throughout the supply of public goods and services. The key to government governance is whether the government's way of providing public services is efficient and can effectively meet the public demand. Regrettably, public procurement often ignores public demand preferences and does not match the actual needs of residents in specific areas. Not only the efficiency is questioned, but also it is even lost the fairness, and it deviates from sustainable goals. This has also become an internal motivation problem that needs to be studied in depth.

Fourth, existing literature has the theoretical system mainly discussed the theoretical basis of SPP from the aspects of economics, management, finance, environmental economics, and sustainable development theory. Specifically, SPP makes more use of externality theory, such as supply chain management theory, sustainable development theory, and stakeholder theory. These studies provide a rich reference for this research. At present, SPP has tended to conduct in-depth research into a wider range of public services. Disciplines such as sociology, ethics, psychology, and public administration have essential theoretical implications. It is particularly important to note that the current theory of sustainable public procurement has gradually formed a system, while cutting-edge research is demonstrating interdisciplinary theoretical innovations and intersecting each other to form comprehensive research results.

This chapter has achieved the research objective 1 – 'To discover the possible gaps and core factors in SPP motivation research, and determine the problems that need to be considered in research'. It has found essential results and valuable research area.

Based on the literature review in this chapter, the research objective 2 – ‘To design and construct an exploratory and comprehensive conceptual framework of SPP motivation and improve the theoretical and practical understanding’ has been fundamentally supported. It has contributed to creating a brief sense of conceptual framework for later research and ensuring the system thinking as the basis of the framework.

Through the literature findings, SPP motivation factors and elements have been summarised, although there is still empty area and potential problems. These findings could be the support for further achieving research objective 3 – ‘To determine the structure, key components and functions of the SPP motivation conceptual framework’.

Finally, research objective 4 – ‘To explore the value and role of demand orientation in SPP theory and practice’ has been discussed as well. This chapter has assessed the demand-based issues which highlighted the public demand and public participation. Some evidence has confirmed the orientation of demand has dramatically impacted on SPP motivation, and ultimate goal, which requires further and more profound research and discussion, especially when creating the conceptual framework.

## **Chapter 3 Conceptual Framework**

### ***3.1 Introduction***

In the second chapter, the literature analysis summarised the existing literature on SPP from the perspective of conceptual function, environmental pressure and organisational theory. It has progressed research objective 1 that created a underlying sense of the misunderstanding of motivation, drivers and impacts of SPP, mainly the focus on SPP in primary health service. Therefore, based on previous research results, this chapter systematically summarises the potential drivers of SPP motivation system, examines inefficiency performance, and reveal the linkages among drivers. It will apply a system-based thinking approach to explore this research, aiming to provide a complete, exploratory and systematic conceptual framework of SPP motivations.

In this chapter, the research objective 1 will be continually achieved based on the findings in first two chapters. The summary in this chapter will focus on a critical review on previous research and creating the theoretical position of this research. The research objective 2 will also be mainly achieved within this chapter. It will discuss the main motivation of SPP based on system thinking and develop a brief understanding on creating a conceptual framework for SPP motivation system. Moreover, the research objective 3 focuses on the conceptual framework structure, function and elements. This chapter has contributed on creating the conceptual framework by applying Interpretivism research idea and creating a foundation for further research methods design. Finally, the research objective 4 has also been discussed in thid chapter which

demand-oriented idea has been discussed based on psychology and governance theory.

The first part of this chapter will introduce the progress and problems that have been achieved in this research. The reasons for the in-depth study of the motivation mechanism of SPP were discussed and the research objectives of this chapter were determined. In the second part, based on the summary and analysis of the existing theoretical literature, the theoretical positioning of this paper is proposed. The theoretical analysis of the motivation mechanism of SPP is carried out to deepen the understanding of SPP development motivation theory. In the third part, a system-based approach is used to construct an exploratory and system thinking SPP motivation mechanism framework. In the fourth part, in order to strengthen the persuasiveness of theoretical interpretation, preliminary conclusions are drawn on the theoretical positioning and essential viewpoints of this research. It is proposed to provide empirical research as a supplement and improvement of the conceptual framework of sustainable public procurement motivation mechanism.

## ***3.2 Theoretical positioning***

### **3.2.1 Existing findings and research theoretical positioning**

Interpretation and critical research in the social sciences are an important part of normative research methods. Interpretive research focuses on the understanding of society and the significance of human activities; critical research accumulates,

updates and promotes theoretical leapfrogging and self-development through theoretical suspicion and reflection. This research analyses why SPP shows the lack of power and fails to play its due role from the perspective of interpretation. It will also use critical research to evaluate the current research status of SPP motivation mechanism through the logical approach of reviewing, interpreting and criticizing, in order to realise the theory of SPP motivation mechanism.

In Chapter 2, literature studies found that SPP's research on motivation has yielded some results that raise awareness of the subject. By reviewing the literature (including academic literature and those of practitioners), it could be concluded that the majority of the research focused on individual drivers or local aspects of SPP practices, ignoring the link that one driver will influence the other drivers. There was rare attention to the internal motivation behind the procuring entity and stakeholder behaviour. There was also missing understanding of ignoring the interaction between the internal motivation of the SPP entity and the external motivation of the environment. Few studies involved public needs and public participation, and they usually ignored the 'demand-oriented' in SPP; 'Value and role in the conceptual framework of motivation mechanism'; different disciplines based on different value orientations study the nature and approach of SPP development from their respective meta-values, and its conclusions are obviously difficult to integrate into a complete and harmonious development picture. This is one of the results of this study.

According to the characteristics and status quo of the research questions, the theoretical orientation of this research is based on system thinking and theory, integrating relevant theories such as sustainable development theory, stakeholders theory, Theory of Planned Behaviour, and public governance, and developing a comprehensive induction method. The conceptual framework of the exploratory and comprehensive SPP motivation mechanism helps the theoretical study of the SPP motivation mechanism to be more systematic and in-depth, and provides guidance for SPP practitioners in decision-making and execution.

### **3.2.2 System-based analysis of SPP motivation**

The system is a way of material connection, an organic collection with specific goals and functions combined by several interconnected and mutually constrained components (Zhang, 2018). The SPP motivation conceptual framework can be considered as a system because it has all the features and functions usually required.

First, the SPP motivation mechanism is the whole system. SPP motivation has various components, and the driving factors are diversified and complicated. These motivation elements have their own characteristics and functions. From the perspective of SPP driver source, this system could be regarded as two subsystems – external drivers and internal drivers. The external power originates from the external environment outside the subject, and the internal motivation comes from the subjective factors of the inside entities. There are many elements in the subsystem that form a subsystem

that exhibits a certain level and structure which can be further divided. The classification of the motivation mechanism of SPP is not only because of different drivers, but also because of different natures that have different ways to impact on SPP. However, external motivation factors generally affect SPP by acting on internal motivation factors. The effect of internal motivation factors on SPP is straightforward in many cases. Meanwhile, the impact of some internal motivations on SPP may also take effect via other internal factors.

Secondly, the SPP motivation mechanism system is open, and the open system has infiltration and modifiable boundaries. The conceptual framework of the SPP motivation mechanism generated in this research should be suitable for a specific context to achieve practical purposes. Within the SPP motivation mechanism system, there are material, energy and information exchange between the system and the subsystems to achieve the overall optimisation of the system. The interconnection contributes on avoiding the deviation of the target trajectory of the system from the original expectation, and ensuring its more robust development in a complex and changing environment.

Thirdly, the SPP motivation mechanism system is connective. The SPP motivation mechanism forms a particular structure among the elements. Elements in the system are synergistic and mutually constrained to each other. Movements and changes in any component of the system inevitably affect and influence other factors, causing other factors to make corresponding changes. In order for the system to realise the overall function and value, it is

necessary to grasp the relationship between many elements in the system, not only to play the roles of various parts of the system, but also to explore the overall new functions formed by the interconnection and cooperation of various parts of the system.

Fourth, SPP is goal-oriented. The various motivation should be based on the specific content of the target based on the internal consistent conceptual framework. The entire SPP motivation system forms a whole unit. The main body of SPP is human, and human behaviour is naturally subjective and purposeful. All systems seek to achieve a purpose, so as SPP system. Therefore, the premise of determining and the system function should be accurately targeted. Later on, all the implementations of the activities are required to follow the target and validate the results.

Within this research, the conceptual framework has been designed with the consideration of the exploratory and comprehensive SPP motivation mechanism. The framework is required to show the openness, orientation and complexity. Moreover, in the following chapters of this research work has been done to trace the source through a case study, and to validate the key factors affecting SPP. In the end, an in-depth analysis of the system-based motivation of SPP, a reasonable evaluation of the main driving factors and motivation mechanisms of SPP will be used to validate the original design of the conceptual framework.

### **3.2.3 Psychology-based analysis on SPP internal motivation**

Using psychology theory to study the SPP motivation mechanism, it can create a stronger sense of clearly recognising the mechanism of SPP behaviour. The aim of implementing psychology-based analysis is to identify the leading motivation drivers related to SPP behaviour, explore their degree of influences, and further extend the range and depth of this research.

The Theory of Planned Behaviour (TPB) has become the basic theoretical basis and conceptual framework in the field of environmental behaviour research (Yan, 2017). This research aims to make an in-depth study of the internal motivation of SPP through TPB thinking and contributes to further discussion in data analysis. Therefore, to adopt this method, it could be better to regard the SPP process as a kind of TPB model.

TPB believes that the occurrence of individual behaviours depends on the action will of behaviours, and there is a significant positive relationship. Behavioural will is the most direct dependable variable of actual behaviours. Three factors determine behavioural intentions – personal attitudes, subjective norms, and perceived behavioural control (Ajzen, 2006, 2011; Gärling et al., 2018)

Personal attitude refers to the positive or negative evaluation of an individual's implementation of a specific behaviour. Subjective norm refers to the pressure of an individual from the important people or social organisations that are perceived by the specific behaviours. Perceived behaviour control refers to the individual's perception of the degree of difficulty in taking particular actions, and the

perception of the degree of controllability of the relevant factors that promote or hinder the implementation of particular actions.

The core of TPB believes that the possibility of an individual performing a particular behaviour is influenced by the individual suggestion to engage in such behaviours (Ajzen, 2011; Ajzen & Klobas, 2013). The intent of SPP influences SPP behaviours, then determines how much difficulty the subject is willing to try and how much effort is planned to perform an action.

In TPB, the willingness to act is defined as the psychological tendency and behavioural motive of the individual before the behaviours are taking place. The willingness to act is the necessary process for the occurrence of the behaviours. The most important determinant of the behaviours is the willingness to act. The SPP internal power mainly comes from – whether the purchasing entity is willing to take SPP action, whether it is convinced that SPP action can be implemented, whether there is enough pressure and motivation to take SPP action, and then affect the actual behaviours (Gärling et al., 2018).

SPP behaviours are determined by multiple factors and are the result of the interaction of specific individual characteristics and contextual factors. The general law of social behaviours, arguing that the individual's behaviours depend on the individual and the environment in which he or she is located. SPP behaviours is the result of the interaction and interaction between subjective and environmental factors and other related factors (internal and external). It is necessary to study the organisational and social

environment that affects people in their behaviours in order to promote the SPP process.

According to the TPB theory, the pressure from the society perceived by the SPP behaviours subject can be predicted by the subjective norms of individual perception. The pressure from the community mainly comes from two aspects – one is the role pressure; the other is the reference crowd effect. The roles of different levels of government and various procurement entities are different. They adopt a behavioural model that is related to a particular social position. It is a specific behaviour that is unique in a particular social status. Whether the procurement personnel in the organisation take SPP behaviours is often influenced by many reference groups.

The behaviours of non-individual will is not only affected by the intention of behaviours, but also by the actual control conditions such as individual ability, opportunity and resources of the execution behaviours. Therefore, a positive attitude is not always enough. In some groups, increasing social pressure may increase the action of the SPP. Not only is behavioural control important, but instrumental attitudes and norms, where social norms are related through individual normative behaviours. The results also show that in order to make behavioural changes successfully, one needs to undergo a transition from a low phase to a higher stage.

Since the beginning of this century, many research findings in psychology and social psychology have been incorporated into the study of social and economic issues, deepening the study of social sciences. It is also of great benefit to this research.

### **3.2.4 SPP motivation mechanism**

The SPP motivation mechanism is the drivers and power sources for the development of SPP. It is a better choice to reveal the inherent laws of the development of general things and to start the motivation mechanism of SPP development.

The 'new development concept' believes that sustainable development is a holistic, internal, and comprehensive development process (Liu, 2012; Perroux, 2010; Yang et al., 2017). This view has been widely recognised and certified in practice. As an essential part of sustainable development, SPP should also be understood as a motivation mechanism from a holistic, internal and comprehensive perspective.

First of all, the realisation of SPP is a multi-subject, multi-element, multi-linkage interaction and interaction process. Many driving factors influence this process, and there is a multi-level and multi-factor comprehensive motivation system. The motivation system consists of the external motivation of the relevant organisations and procurement environment, and the internal power of the procurement-related entities and stakeholders' value-driven demand. The organic combination of all factors needs to be driven by external power as well as internal power, and through the integration of internal and external drive to promote the smooth implementation of SPP.

Secondly, the internal factor is the core feature of the development of management philosophy, which indicates how SPP is produced.

Internal motivation is a factor that originates from the subject and can be determined by the subject, such as cognition, ability and emotional commitment. External power originates from the environment and is a factor that the subject cannot decide, such as policies, regulations and the behaviour of stakeholders.

Reality has proved that the nature and extent of sustainable procurement behaviour vary from purchaser to purchaser. It is due to the procurement decision makers and implementers will have various SPP behaviours under the same environmental conditions and similar external driving force. Therefore, the final result of SPP depends on the internal motivation. Inefficient or failed public procurement is often the external driving mode of the passive party, with extensive and loose characteristics. However, efficient and successful SPP often stimulates the internal motivation of stakeholders and realises sustainable procurement through value recognition and benefit sharing. Therefore, human beings occupy a decisive position in the activities of SPP. The internal motivation is the main power source and the fundamental power of SPP. External motivation factors often need to act through internal factors.

Finally, the motivation mechanism for promoting the development of SPP must be moderate, and so called 'moderate' includes direction, measure and synergy.

The direction is referring to the course of power. The promotion and development of SPP depend on whether it is consistent with the overall development goals of the economy and society and whether it meets the requirements of sustainable development. The direction of ensuring the correct direction needs to be oriented. The

orientation of SPP means that the basis of public procurement is derived from the government itself or from the needs of citizens, which demand-oriented is relative to the government. Demand orientation is guided by the social norm and the people-centred concept. The government complies with public opinion requirements, provides public goods and services based on public needs and assumes service responsibilities. Demand-oriented SPP is based on the needs of human survival and development, primarily to protect people's basic survival needs, to advance with the times to improve the level of human needs and satisfaction, and to facilitate the coordination of individual and public interests.

The measure is the magnitude and strength of power. Insufficient motivation can lead to sluggish and inactive SPP processes; non-rational needs and interest pursuits can lead to waste of resources and inefficient public services. Moderate power combines the satisfaction of social needs with a good public procurement strategy, which not only activates the motivation of procurement-related entities to pursue reasonable interests, but also controls SPP activities within the scope of rules and order.

Moderate power also includes synergy coordination and optimal configuration between various needs and interests. There are two underlying conditions for the operation of the synergy mechanism. One is the promotion of internal motivation, that is, the subject can obtain the expected valuable things from the participation synergy mechanism. The other is the intention of the participating parties to promote the SPP consistent. Reflected in the SPP process, the interests of the participating entities are linked through the

operational mechanisms of cooperation, competition, and checks and balances. According to the theory of inter-organisational relations, the expected goals of forming a stable relationship among organisations mainly include reducing transaction costs, promoting the improvement of social welfare, and correcting external effects.

### ***3.3 Conceptual framework***

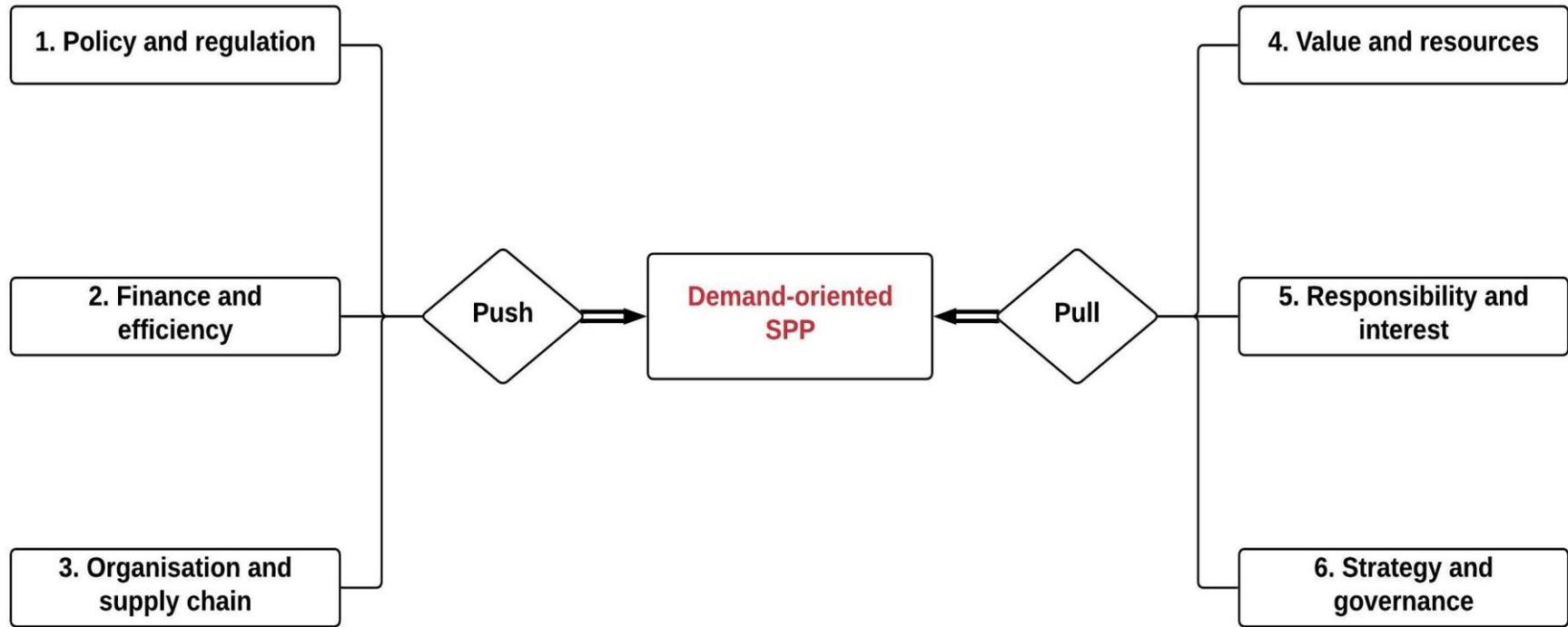
#### **3.3.1. The design of conceptual framework**

While the idea of motivation and system drivers, the basis of the SPP conceptual framework was discussed in the previous section. This chapter will explore and show the concept of designs on developing the SPP conceptual framework.

The conceptual framework (Figure 3.1) is constructed by learning from a previous framework designed by (Walker & Brammer, 2009, 2012) and referring to its four conceptual perspectives. The framework of Walker's focused on SPP in the following: the importance of the policy environment, finances feasibility, organisational attitudes and incentives for SPP and the importance of implementing SPP capabilities. The framework was designed to reflect the importance of the scope and nature of SPP policies and to analyse which factors contribute to and hinder the further development of the public sector. The framework was created in the early days to examine how public procurement was transformed from policy to practice (Gelderman et al., 2006). Then Walker and Brammer (2009; 2012) borrowed it to outline how international public institutions are implemented SPP, and the factors that

influence the interaction between the organisation and the SPP. This widely accepted conceptual framework provides a useful reference for this research.

However, in this research, the design of the conceptual framework has been required to take system thinking, demand orientation, TPB theory, stakeholder theory and strategic governance into consideration. The system analysis method is used to analyse the problems related to the SPP motivation mechanism. The research has regarded the SPP motivation mechanism as a whole, and put it in the form of the system to examine the inner relationship between related factors.



**Figure 3-1 Conceptual framework (Version 1)**

The preliminary construction of the SPP motivation mechanism conceptual framework is to design a complete system, which develops two parts of subsystems from the perspective of SPP motivation source. The leading motivation is the internal factors and external factors. The driving forces of external factors include: political factors, economic factors, supply chain and organisational factors. While the factors in the formation of internal factors including – values and resources factors, responsibility and interest-driven factors, strategy and governance factors.

This research is based on system theory, Theory of Planned Behaviour (TPB) theory, stakeholder theory and governance theory to develop an exploratory and comprehensive conceptual framework of motivation mechanism of SPP. The system-based analysis method is used to analyse the related problems of SPP motivation mechanism. The motivation mechanism of SPP is regarded as a whole unit and put into the form of a system to examine the internal relationship between relevant factors. The direction of the framework shows the demand-oriented thinking, and at the same time, these factors are driven by the satisfaction of interests and needs.

These views apply to problems related to the motivation mechanism of SPP. Firstly, different driving factors have various power sources, and the motivation mechanism of SPP formation is also different. Although each motivation factor has a unique perspective, they are complementary in the interpretation provided by the SPP. The relationship will be discussed later in this chapter. Secondly, SPP as a social activity, the final decision-making and execution are

decided by people, which means that it may be the most critical factor that people-involved activity leads to the complexity of SPP motivation mechanism.

To create a strong sense of conceptual framework analysis, these effects are discussed separately in different themes within this chapter, but in reality they are interrelated. The mechanism of the motivation factors is also analysed in the process of interpreting the conceptual framework.

### **3.3.2. SPP external motivation**

First of all, the conceptual framework takes SPP as its core goal. The left side starts from the factors driven by the external environmental pressure of the procurement organisation. It has been summarised as political motivation, economic motivation and organisational and supply chain motivation. It may be the driving factor for the promotion and protection of SPP.

#### ***Political motivation***

The first theme, political motivation. This is one of the most powerful factors for countries to promote SPP. The driving factors include law, policy, regulations and standard, and supervision and execution.

SPP serves public utilities and requires legal political power, a sound political system, strong leadership, and broad social mobilisation support. The government plays a leading role in the development

process, and the size and structure of SPP will be determined by the strategy of governing the country and the development plan (Hasselbalch et al., 2014; Nadeem et al., 2017).

The government is the primary distributor of public resources, and the development of SPP related policies can affect the welfare, public choice and life prospects of citizens. Policy as a national governance tool, its implementation and implementation process reflects national governance structure and particular government's ruling willing (Zhang & Zhao, 2015).

Law means authority, legality, fairness, standardisation and orderliness. A large number of studies have confirmed that the decision to incorporate sustainability into the procurement of public services requires more determined legislation and more effective enforcement of laws and policies.

The regulation system is an open standard system (Rawls, 2009), which is an important driving factor for SPP. The solution to the social dilemma and collective dilemma aroused from the individual's pursuit of maximum utility has to focus on regulating the relationship between human beings (Douglass, 2016).

A large number of studies show that political driving factors are the most recognised motivation. All kinds of political driving forces are manifested in social order and social norms under the guidance of a strong government, highlighting the government's effective control over society and forming the external motivation of SPP. The political motivation of SPP is determined by the subjects in which SPP participates. Different subjects have different subjective wills

and may have different value orientations, that is, the basic positions, attitudes, concepts and beliefs of government decision makers and procurement implementers may be different. There is a deeper reason behind these subjective will differences, that is, the public demand and their own needs which they want to satisfy. Demand is expressed as concrete interests in certain social relations. In order to realise the interests, there will inevitably be a sense of purpose directed at satisfying the needs. These motives dominate the actions of SPP subjects. Therefore, different types of actors have diversified expectations of SPP value goals, which may lead to the formation and utilisation of different political driving forces.

Not only that, but the support of the target group, which is the political driving force, also plays an important role in the driving force effect. If the target group adopts a non-cooperative attitude towards the political motivation, then the effectiveness of the implementation of the political motivation will not be high. Political motivation can reflect the public's preferences, or can shape these preferences to conform to political goals (Keulemans et al.,2017), in order to generate SPP synergy.

Thus, the formation of political motivation is not only the result of external factors based on the logic of natural evolution, but also the result of internal factors, that is, the subjective will and interest pursuit of decision makers and actors. The effectiveness of political motivation should follow the demand-oriented, should take into account the interests of SPP stakeholders, and guide the realisation of common goals.

### ***Economic motivation***

The second theme – economic motivation. As an economic activity, SPP is driven most directly and effectively by economic means. This component includes, economic foundation, financial support, value for money, and procurement efficiency.

The size and structure of public procurement are closely related to the overall level of the economy of a country or a region. The total financial resources, structure and capital utilisation efficiency of public procurement in a country and region have a direct and restrictive effect on SPP (Islam et al., 2017; Romodina & Silin, 2016). It will affect the innovation of public procurement level and mode and the establishment of long-term mechanism of SPP.

The government is a big buyer, reflecting the country's strategic intention, which may lead the government to exert important influence on the market structure of suppliers and the nature of goods and services provided through procurement bidding (Jaehrling, 2015). SPP is endowed with more functions as an important means of development strategy or as an important demand-side tool (Wang, 2014).

Institutional theory shows that business practices and organisational behaviour are influenced by institutional structure (Nurunnabi, 2015). SPP often represents political rights and becomes a prior consultation mechanism with mandatory function. Authorisation, entrustment and approval certificate can determine the priority of SPP acquisition in a certain field. Directory coverage management provides more timely services to end users, thus

affecting the overall performance of SPP (Papanagnou and Shchaveleva, 2018).

The government can also encourage social organisations to implement various sustainable management or service activities through tax policies, increase the cost of non-sustainable behaviours, guide organisations and individuals to adopt sustainable behaviours, improve the utilisation rate of resources, and realise the goal of 'value for money'.

Theoretically, economic motivation has the most abundant and direct driving factors. However, a considerable amount of research regards it as the most important obstacle to the implementation of SPP, not the driving factor. To sum up, the main reason, firstly, from the perspective of economics, resources are scarce, and governments at all levels will face rising pressure to 'do more with less'. Governments at different regions and levels objectively have different resources, are required to subjectively consider the use of limited financial resources in which more valuable goals. Secondly, consumers in some areas are not chasers of green or sustainable products because these products are considered to be more expensive. In the medical field, there is a greater emphasis on treatment and care needs to be prioritised, lacking or rejecting alternative products. Thirdly, procurement organisations and purchasers often believe that the cost of purchasing green or sustainable products is high, the risks are high, and it is unclear whether the purchase of such products has a stable benefit to those who have a clear interest. Therefore, it could be concluded that different entities or stakeholders in SPP have different aims,

interests, and decisions which in turn influencing their attitudes and behaviours.

Social psychology believes that behaviour is controlled by the will of people, who will synthesise various information to consider the meaning and results of their own behaviour before making a certain behaviour. On the one hand, procurement-related subjects choose the means to realise interests according to the degree of convenience and quickness. On the other hand, procurement-related subjects will also judge and choose the cost of the means adopted. Only the means with the lowest cost and the greatest benefits can become the means adopted by procurement-related subjects. Any means that are not conducive to realising maximum benefits will be questioned or abandoned by procurement-related subjects.

Therefore, economic motivation acts on SPP as external driving force, but it is still determined by internal factors. The choice of SPP motivation is the choice of means, which is the bridge to achieve the main goal. The choice of means is restricted by the main body's objectives and social-historical conditions. Without the constraint of demand-oriented SPP, the choice of means to realise benefits may really promote sustainable development, or it may be unreasonable and unsustainable. The most convenient and quick means with the lowest cost do not necessarily constitute the real driving force of SPP.

At the same time, the behaviour of different subjects of SPP is also self-demand and interest-driven. Discovering this mechanism can understand why economic motivation often becomes a kind of

resistance. According to this mechanism, guiding relevant subjects to correctly understand needs and interests and emphasising the overall pursuit of demand-oriented SPP may have a positive effect on SPP.

### ***Supply chain and organisational environmental drivers.***

The third theme – Organisational and supply chain motivation. The driving factors under this theme include, organisation, stakeholder, human resources and supply chain.

The theory and practice of sustainable supply chain management have been widely used and have a significant impact on public procurement. The biggest contribution of a sustainable supply chain (SSC) is to share sustainable values and empower all members to participate in sustainable action.

The motivation effect of SSC on SPP can be achieved through three important driving forces, namely, information sharing, synchronous decision-making and incentive alliance. It achieves in forming supply chain collaboration(SCC), coordinating and working with relevant organisations in the supply chain, thus improving the overall competitiveness of the supply chain and realising the wishes and goals that individual organisations cannot achieve.

Procurement can be used as a strategic tool to promote the realisation of SPP policy objectives through its impact on the supply chain, not just as an administrative function (Quak et al., 2019).

SPP within supply chain involves a wide range of stakeholders. They jointly drive the practice of sustainable concept in supply chain management. Based on the synergy of long-term strategic relationship, the cultural concept, target pursuit and effective incentive and constraint degree of stakeholders are all the driving forces of SPP.

Pressure from the public at the demand side of the supply chain and pressure from other stakeholders in the supply chain, procurement management under sustainable supply chain should consider the objectives of sustainable development in three dimensions of economy, environment and society, which have put forward by customers and stakeholders. This trend emphasises the needs of customers and also takes into account the needs of all stakeholders in the organisation.

As a concept, the core of sustainable development is the degree of influence of the organisation. This impact is a collective effort determined by the actions of organisations or individuals that lead, support and promote sustainability strategies and initiatives that contribute to broader long-term interests.

Leadership is another important driver of public sector organisations' implementation of the SPP strategy. The ability of procurers has gradually been valued, and some studies have suggested that individuals in SPP implementation have a special influence. If senior management supports sustainability and incorporates SPP into planning, strategy, and goal development, the procurement team will implement the SPP.

Organisational structure and working procedures, incentives and organisational changes in the organisation are also key drivers, because the resulting SPP procedures and norms are crucial to the promotion of organisational members. When people have intention and feel behaviour control, they are more likely to not only show the desired behaviour, but also perform better when they have the necessary skills, knowledge and motivation. Relevant policies of the organisation, giving money and performance rewards to members of the organisation are all effective driving forces (Zaidi et al., 2018).

Understanding of SPP implementation policies has been proved to be one of the key factors to improve its SPP performance. The research found that cognition can not only affect behavioural decision-making on the conscious level, but also play a role on the unconscious level. It can affect individual behaviour through such mechanisms as habits. The improvement of cognition will inevitably lead to reasonable expected behaviour (Courbalay et al., 2015; Testa et al., 2016).

The ability of purchasers has gradually been paid attention to. Some researches believed that individuals have special influence in the implementation of SPP (Grandia, 2016). Therefore, the learning mechanism of knowledge is one of the driving forces of SPP, which can provide motivation support for organisational culture formation and innovation. Learning potential is huge. When one can acquire the ability of communication and institutionalisation in the collective world outlook, then its power will merge into organisational strength

and become a higher-level driving force for organisational integration.

From the perspective of the supply chain or the public procurement organisation, it could confirm that there are a large number of drivers to support SPP, and they really promote the progress of SPP (Harland et al., 2019; Sayed et al., 2017). However, it can also find the difference in the implementation of SPP in a large number of different countries and different public sectors, partly because of the differences in resource ownership and because of the motivation that should be played are suppressed. The reason for this is that they have not noticed the difference and mutual influence between internal and external motivations, especially some members of the supply chain and the organisation have not insisted on demand orientation or their interests have not been protected. This proves the decisive role of internal motivation.

### **3.3.3. SPP pulling forces**

The conceptual framework takes SPP as the core goal, and the right side starts from the inner driving factor of SPP, which has the role of guiding and pulling SPP. The right side includes values and resource; interest-driven and government responsibility; strategy and good governance.

## ***Values and resources***

The fourth theme – values and resources motivation. It includes social values, governing concepts, organisational culture, personal beliefs and SPP concepts and other driving factors

The important internal driving force of human behaviour is their value cognition. The idea of the significance of things to individuals or society is values. In social psychology, values are understood as attitudes towards ideals, customs and social norms. Values are regarded as the starting point and destination of people's behaviour and an important part of people's world outlook. This definition reflects the motivation and self-control that have been driven by value.

Values are a hierarchical structure, which is also called 'system of value'. When a value is internalised and becomes the guide of human behaviour, it is called 'value orientation'. Different values will lead to different purchasing decisions and behaviours. If the relevant concepts and values of sustainability influence or are embedded in the values and beliefs of the government, the organisation's culture, and the procurement-related subjects, it is bound to lead them to adopt corresponding SPP behaviours, which has been proved by theory and practice.

The judgment of the value of government behaviour forms different governing concepts, which further determines the direction of public service and SPP. According to the new public service theory, the government's ruling idea is based on the realisation of public interests. The government pursues the satisfaction degree of public

demand and the realisation of social fairness, transcending the government's own interests and the efficiency of public administration and becoming the ultimate value goal of the government. It has to promote the establishment of a collective and common public interest concept. This has become the dominant driving force to support people-oriented SPP (Denhardt and Denhardt, 2016).

Literature research results show that the organisation's top leaders' values and commitments drive the organisation's implementation of SPP, and the public organisation culture and the purchaser's ideal and belief composition have a leading role in the implementation and innovation of SPP. Research on human resources management and organisational behaviour also provide evidence. The greater the convergence between employee values and objectives and organisational values and objectives, the higher the SPP achieves work results and organisational performance. In the future implementation of SPP, the attitude, knowledge and ability of practitioners may become an important motivation source for the organisation. Attitude, as a psychological phenomenon, is based on cognition. Attitude is a relatively organised tendency of concept, emotion and behaviour. For the change of SPP attitude, the commitment made by organisation members is an important determinant for changing employee behaviour and ideal work results (Grandia, 2016).

Culture is a kind of behavioural motivation that gradually accumulates and internalises the mind, which is influencing people's way of thinking, values and emotional attitudes. Social rationality is

a profound insight into the inherent nature, developmental laws and fundamental trends of the society and the conception of the future society will rely on it. Some scholars believed that at present, people's pursuit of developmentalism because 'development' has evolved into 'developmentalism', which means that it has become an ideology, become one of the fundamental forces driving the global society, and constantly expand new dimensions (Yang, 2017). Literature research shows that there is a positive correlation between environmental knowledge and environmental behaviour, especially between environmental problem knowledge and environmental action knowledge and various environmental behaviours (Echegaray & Hansstein, 2017).

SPP involves many stakeholders, such as purchasing, using, accepting and supervising subjects. Different stakeholders, including political leaders, staff, taxpayers, regulatory agencies and suppliers, often have conflicting objectives and requirements. The changing political agenda has exacerbated the heterogeneity of stakeholders' wishes and needs. The transmission of culture and values through the sustainable development of values is internalised into people's ideological psychology and personality system to form common ideals and beliefs, which are concentrated in the practical activities to realise the overall social value goals and individual value goals. It is the most profound and lasting spiritual power source for social individuals and social groups to carry out value creation activities.

Resources are the most essential material basis for the survival and development of human society, including natural resources, human

resources, information resources and social resources. A country or region, a company or organisation, an industry or sector, has natural resources, socio-economic resources, technical resources, and resource endowments that are usually different. These differences may determine the comparative advantage and competitiveness of different regions and sectors.

Resource status and resource endowment are the basis for implementing SPP. They have direct or indirect motivation effects on SPP, and the result is efficiency, optimality and sustainability. For example, the accumulation of certain types of human resources and technological resources provides a guarantee and competitive advantage for improving the sustainability of related industries and services. The direct performance of technical resources is to create and enhance procurement tools, procurement technology and procurement management methods. E-commerce and internet technology, through online assessment tools and training materials to supplement traditional forms of training technology, in order to improve the SPP capabilities of stakeholders, and to implement the national SPP standards, which significantly promoted SPP (Adjei-Bamfo et al., 2019).

To a certain extent, resources can determine the utilisation and development direction of resources, making resources used by SPP and becoming a process of increasing social wealth. However, the utilisation and development of resources show the main body of social resources – the implemented wishes, wills and purposes of human beings. Therefore, its essence is an internal motivation.

Cultural values and resources as internal drivers can best motivate the implementation of SPP. It is worth noting that they do not automatically form SPP to play the leading and pulling role. Therefore, as a kind of development ideology and conscious behaviour, it must respond to the demands and claims of the interest groups it represents, and must include the pursuit of certain social value goals and the choice of value orientation. Otherwise, this idea will not last long due to the loss of public support. Therefore, the driving force of values and resources is demand-oriented.

### ***Responsibility and interest***

SPP is usually implemented and promoted jointly by a consortium of buyers, users, contractors and reviewers. Stakeholders involved include the government, suppliers, beneficiaries, and individuals or organisations affected by the procurement (Xia, 2019). The buyers and stakeholders have their respective responsibilities, maintain their relative independence and, most importantly, pursue their respective interests and demand.

'Responsibility' is always the core operation basis of SPP. In different stages of development and under different demands, the position and role of stakeholders and the tasks they undertake are different and have dynamic characteristics. 'Responsibility self-conscious' is an important motivation of SPP. SPP stakeholders can become active agents rather than passive roles.

Theoretically, strengthening the accountability mechanism for SPP participants can promote the expression of the needs and wishes of the public, improve the efficiency of government supply, and prevent the supply and demand of public procurement from dislocation, distortion and surplus. However, the implementation of SPP is not a spontaneous process, which is influenced by the main body's cognitive ability, moral level and behaviour ability.

Responsibility self-consciousness is possible but not inevitable.

As discussed in the previous analysis, TPB theory has been widely proved to be effective in predicting the extensive behaviours of many different populations (Yan, 2017; Úbeda-Colomer et al., 2019), which proposes the rule that intention determines behaviour. As the three basic components of TPB, personal attitude, perception of others idea and control of perceived behaviour affect the intention of individual and organisational behaviour change and ultimately affect the realisation of expected goals (Ajzen, 2016). However, behind the evaluation of these three factors, there is an inner motivation, that is, the balance of interests.

SPP is essentially an interest activity. SPP participants agreed or refused to join this process are in line with whether their interests can be met throughout the activities. Pursuing interests is the fundamental purpose. Objectively speaking, SPP is a process in which potential interests are discovered, different stakeholders focus on these interests and pool resources to jointly carry out procurement activities and obtain their expected benefits through procurement.

Interest is a fundamental social phenomenon and acts in subjective manner. Firstly, the subject has a strong desire for needs. Only when these subjective desires are met can the interests be realised. Secondly, the subject needs to actively exert subjective initiative to realise the relevant conditions and content to meet the demand. Thirdly, the realisation of interests is conditional on specific social recognition, because interests are the benefits determined by society and can only be achieved under the conditions created by society and by means provided by society. It is 'interest-driven' that dominate participants' knowledge and thoughts, affect their judgment on things and determine their choices. Therefore, interest is the fundamental driving force of SPP, and interest-driven adaptation is also the core of the motivation mechanism of SPP.

In the process of SPP implementation, it is necessary to properly take into account and meet the interests of stakeholders. If people do not recognise the importance of all stakeholders, it could result in their frequent absence from the decision-making process and lack of internal motivation, it may lead to failure to achieve the expected goals of the SPP (Amarah and Langston, 2017).

The judgment of the value of government behaviour is based on the realisation degree of public interests. For example, in the case of market failure, government intervention is mainly due to fairness considerations. Based on the responsibility self-consciousness of fairness and justice, the government helps 'those who suffer, those in difficulty and those in inferior position' to build a 'good society'.

Based on the government's self-conscious recognition and claim of its own responsibilities, the government can adjust its own functions

through actual needs. For example, the ecological protection function could have been included in the scope of government responsibility. Moreover, government can utilise financial procurement and purchase, equalisation of transfer payments and equalisation of subsidies and other measures could help narrow the gap in public services, to achieve universal access to public services.

The government is an organisation. The government's responsibility to society and citizens is not only the overall responsibility of the organisation, but also must be carried out on individuals. The responsibility self-consciousness of public sector procurement personnel is the positive identification and active fulfilment of their job responsibilities, which is a dynamic process of internalising objective responsibilities into subjective responsibilities.

If purchasers believe that adopting SPP and justifying their behaviour can bring benefits, and help to develop a positive image of the procuring entity, it can make them willing to change their behaviour and demonstrate sustainable procurement behaviour (Kozik et al., 2016; Grandia, 2016). A study found that economic returns are also the main motivation for individuals to make commitment decisions (Cholakova & Clarysse, 2015).

For suppliers, in order to share benefits, they can let end users participate in the process from early planning to implementation. Suppliers and end users can create added value by developing products or services according to common needs. Through improving quality, improving production process efficiency, reducing life cycle cost, environmental protection or usability (Mattila and

Silander, 2015). Finally, enrich competitive advantage and brand value.

For citizens, procurement preferences reflect their social and socio-economic conditions and political attitudes (Keulemans et al., 2017). Citizens need to evaluate the purchasing offer and weigh their own interests before accept any procurement decisions.

Only by identifying the real public service demand can fully grasp the public service demand information, which is the basis for making correct public service decisions. Therefore, the government highly values public participation and political response. However, citizens only have a higher intention to participate in order to have actual participation behaviour, which depends on citizens' belief in being able to change the social environment or political status quo, and is citizens' confidence in their behaviour affecting the political process (Zhang, 2016)

Interest-driven and responsibility self-consciousness have become important internal motivation. Public demand is the premise and motivation for the generation and existence of SPP government and participants' responsibilities. Taking positive measures to meet public demand fairly and efficiently becomes a legal way for stakeholders to obtain their own interests. Stakeholder satisfaction is an important indicator to measure the degree of sustainable development (Szekely et al., 2014; Amarah and Langston, 2017).

Interest stimulates the behaviour of stakeholders, which is the driving force to promote the coordinated development of SPP. This kind of incentive and promotion is required to be manifested

through the guiding effect on participants' values, attitudes, enthusiasm and behaviours. Interest-driven regulates and guides various behaviours of interest subjects in pursuit of interests.

### ***Strategy and governance***

The strategy is future-oriented, making the development concept lead, and the goal is more systematic and forward-looking. It not only focuses on current interests and development, but also the long-term interests and sustainable development, which has enriched the orientation of SPP.

The current SPP is gradually being given a more strategic positioning that has increasingly been important in the fields of innovation, sustainability and social development, and has become an important governance tool for countries all over the world.

Introduce strategic procurement could regard SPP as an open system, connect public procurement to environmental issues, and view the internal and external holistic environment as part of the public governance system. The key to the development of SPP is the ability to acquire and maintain resources. In order to obtain resources, it is necessary to interact with stakeholders who control resources. SPP can take a variety of collaborative approaches, each of which represents a way of sharing resources and benefits.

Strategic design and implementation are conscious and active actions taken by SPP subjects on the basis of their analysis of environment, their own conditions and needs. Such actions should

meet the needs of the public and also conform to the objectives and interests of the subjects. Therefore, strategy is the internal motive force for the conscious awareness and creation of the procurement subject.

Good governance is the self-improvement and innovation of the subject's self-consciousness, integrating the internal motivation of SPP.

As a development process, governance is seen as an evolving, gradual development process that adapts to modern social changes (Fukuyama, 2013). The pursuit of good governance is the basic consensus of the value orientation of contemporary government functions. Good governance requires thinking – who should express the demand for public goods and by what means, so as to ensure that SPP pays more attention to public demand and improve the efficiency of public expenditure.

The complexity and uncertainty of SPP have given birth to a large number of cross-border, cross-domain and cross-sectoral thorny issues. The government structure designed with departments as the main functional body is difficult to cope with it alone. Good governance promotes changes in government concepts and administrative paradigms, and requires joint governance by multiple subjects.

The concept of 'community' has gradually entered into the practice of public management and public governance from political science, and has become a general term for the public living space related to the survival and development of human beings and their vital

interests. People express their concern and affinity for all people and things closely related to their living conditions through community. Community is closely connected with every individual who needs to pay attention to their own interests and behaviour choices.

In the public space of community, the most basic public consciousness of human can be cultivated, and the most basic public consciousness can be used to move towards a more mature self and the value goal of self-realisation. This process is a process of re-learning and self-cultivation of SPP's value concept, which eventually drives SPP forward through the same values.

All subjects of SPP (policy makers, implementers, evaluators and target service groups) form a policy community. Policy making is no longer a one-way process from top to bottom in a traditional sense, but a two-way interactive process. In the process of two-way interaction, all subjects participate in the whole process of policy formulation. The participation of SPP stakeholders in the policy process helps to enhance their acceptance of policy objectives and provide support for policy implementation. Each subject accurately understands the SPP goal and has a high degree of recognition of the goal. The external implementation behaviour is transformed into the internal conscious behaviour, because the subjects participating in the policy formulation have the obligation to implement the policies formulated by themselves.

With the expansion of SPP policy functions, more and more goods and services are purchased directly affecting people's livelihood. The public cannot be excluded from the activities of public

procurement organisations, because the public is the end user of public procurement, and the public is the main motivation to promote SPP. Some studies have proved that public participation is the most direct way to identify basic public service demand preferences and value choices. Supporting SPP from three dimensions of strengthening information disclosure, expanding process participation and promoting government response can form an impact mechanism to improve people's livelihood public service satisfaction.

The modern governance structure emphasises that public policies meet the needs of public opinion and public interests, and the government regards the satisfaction of public needs and providing public services as its important responsibilities. The government is no longer the sole owner of the power to govern public affairs. The government is positioned in one of the many important departments that embody the public nature. By promoting the government and development partners, civil society and the private sector to participate vigorously, it establishes a 'co-production mechanism' and a multi-centre governance structure, so that citizens gradually move from the marginal position of 'customers' to the central position of governance.

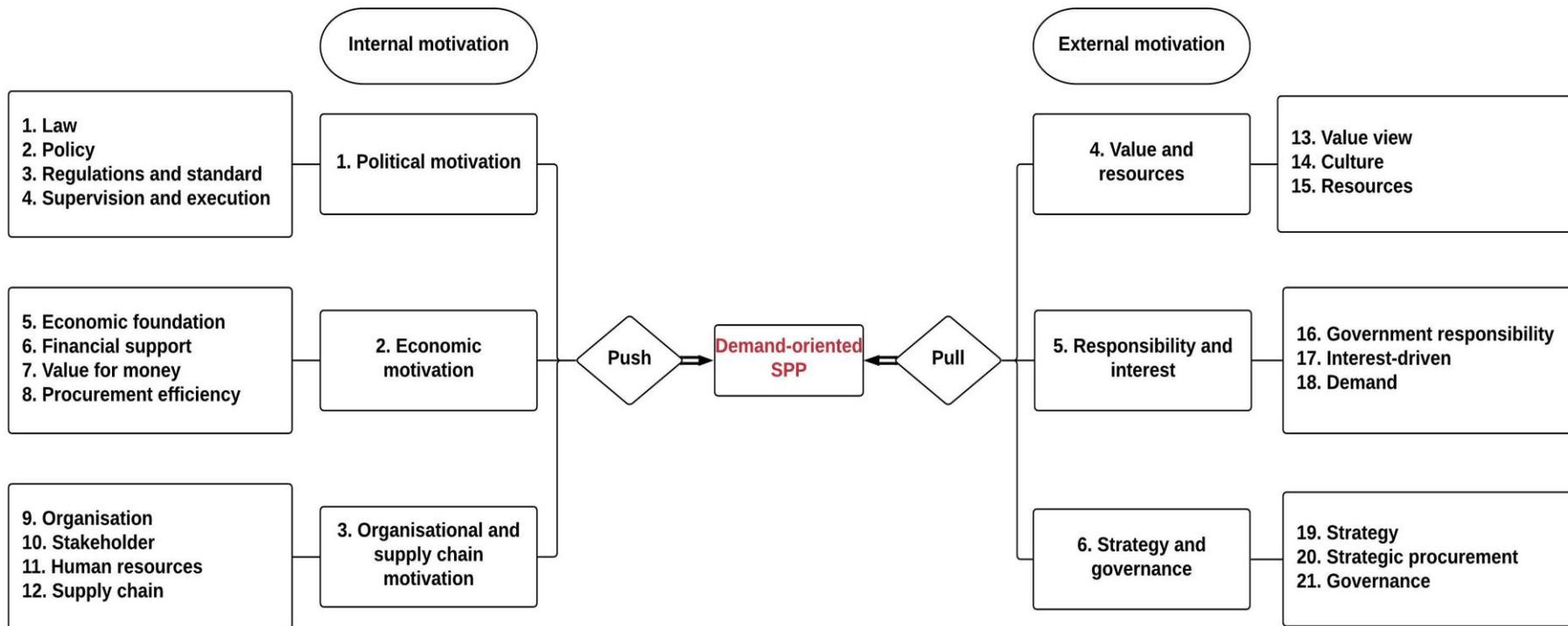
As an improvement and transcendence of the traditional governance model, holistic governance is the response of the government to effectively solve cross-border and cross-cutting issues and meet the needs of the public as a whole. The integrity theory not only emphasises the integration of the functions of different organisations within the government system, but also emphasises

the active cooperation between the government and other organisations.

The public mechanism in the holistic governance bears dual tasks. First, it requires service providers to provide seamless services to meet the overall needs of the public. Second, service providers should shape the overall needs of the public. To promote the public to clearly express their needs, and gather through scientific means to form collective and rational needs. On this basis, the government system needs to integrate and coordinate the organisation and operation, and provide integrated services to meet the needs of the public as a whole unit. The virtuous circle of the two aspects ensures that good conditions are undoubtedly created for SPP, which not only greatly improves the efficiency of SPP implementation, reduces costs, but also, more importantly, realises guidance according to demand-oriented of the public.

The construction and operation of a modern responsible government promote the conscious promotion of government responsibility. The government has an internal motive force for self-development. In order to enhance its own legitimacy, the contemporary government, on the basis of summarising the research results of the theoretical circle and the governance experiences of various countries, has been continuously promoting the development of governance concepts, governance models, and adjustment of government behaviour. These are undoubtedly positive drives for the government-led SPP. In the process of the government's pursuit of good governance, the SPP has more clearly defined the demand orientation, and will also integrate the internal

motivation of stakeholders, thus enabling the SPP to actively participate and innovate.



**Figure 3-2 Conceptual framework (Version 2)**

### **3.4 Conclusion**

#### **3.4.1 Summary of findings**

Based on current literature review, the design of an exploratory and comprehensive conceptual framework on SPP motivation has created the response to the research aim and question – ‘How to design and develop an exploratory and comprehensive conceptual framework of theories and practices that have the potential to improve the motivations of SPP?’ The framework also contributes to progressing the research aim – ‘Through the design and development of an exploratory, comprehensive SPP motivation conceptual framework, to improve the SPP motivation knowledge and practice.’

Through extensive and interdisciplinary literature research, further explore the factors that may form SPP motivation. On this basis, the relationship between these factors is established, and a system-based conceptual framework (Figure 3.2) for exploring the motivation mechanism of SPP is constructed.

The conclusions of the research so far are as follows:

Firstly, according to system theory, the conceptual framework of the SPP motivation mechanism can be recognised and analysed like a system. The SPP motivation mechanism conceptual framework has all the characteristics of the system. The use of the system analysis method is particularly beneficial to the in-depth study of the SPP motivation mechanism and achieve the expected research objectives. The current design of the SPP motivation mechanism

conceptual framework reflects the composition of the system and the orderly interrelationship.

Secondly, because of the characteristics and nature of the research questions, the literature research finds that different disciplines based on different value orientations study the essence of SPP motivation mechanism from their respective meta-values, and cannot solve problems comprehensively and deeply. It is challenging to integrate into a complete and harmonious development. Firstly, the relationship between this research and the specific research philosophy is determined. The system thinking and theories are used as the research basis. The sustainable development theory, stakeholder theory, social psychology theory and public governance theory are used to support this research. Some of the research objectives have been obtained.

Thirdly, it is initially confirmed that the SPP motivation mechanism should be demand-oriented. The results of the literature research are reflected in the preliminary conceptual framework design. The motivation mechanism of SPP is regarded as a system structure. According to the different power sources of SPP, two subsystems are constructed, namely, an external motivation system composed of SPP environmental factors. An internal motivation system with SPP stakeholders' own factors as its components. In the two subsystems, three themes of motivation factors are respectively summarised, and each theme's factor has its own specific meaning, function and mode of operation. The mode of action of external motivation on SPP participants is usually the driving force caused by external pressure. The mode of action of internal motivation on SPP

participants is usually the leading force caused by intrinsic conscious motivation. The purpose of all motivation elements is to meet the demand (Figure 3.2).

Fourth, the decisive factor driving the development of SPP is internal power. Internal power is derived from the SPP body and stakeholders as well as their decisions. SPP entities and stakeholders are organisations based on people-involved performance and decisions. The nature and extent of SPP varies from purchaser to buyer. The demand for people leads to interest-driven and responsibility-consciousness becoming an important internal motivation. The internal motivation factor is the primary source of strength and the fundamental driving force, which has not been highlighted by previous studies. As the research area of this work is based on human beings, it needs an inquiry method and 'live' experience suitable for exploring different subjects of SPP in order to capture the complexity introduced by personnel (non-deterministic entities). Neglecting the analysis of internal motivation may lead people only to see the starting and ending state of SPP, while ignoring the more abundant and real motivation mechanism process, thus further leading to abstract theoretical analysis with large deviation from the real change process.

### **3.4.2 Summary of chapter**

In Chapter 6, research will compare the conceptual framework with the data analysis results. Refining and validating the conceptual framework are performed by associating the framework with data analysis, SPP-related practitioners provide their recommendations

for refinement. This exploration will be continued to update the conceptual framework into a new version.

This chapter completes the research objective 1 – ‘To discover the possible gaps and core factors in SPP motivation research, and determine the problems that need to be considered in research’. It is necessary to conduct more in-depth and systematic research on SPP, and to integrate more discipline theories in order to provide a comprehensive perspective.

This chapter substantially progresses the research objective 2 – ‘To design and construct an exploratory and comprehensive conceptual framework of SPP motivation and improve the theoretical and practical understanding’. The conceptual framework for supporting the motivation mechanism of SPP is initially constructed with the concept of the system.

Through the exploration results appearing in the literature analysis, the research objective 3 – ‘To determine the structure, key components and functions of the SPP motivation conceptual framework’. The integrated nature of the framework is given by the components identified in Chapter 2 and this chapter. The conceptual framework design contributes on summarising the nature and connections of the key components of the SPP motivation conceptual framework. Develop other complementary theoretical explanations while establishing a conceptual framework, and establish a basis for the improvement and testing of the conceptual framework in the subsequent empirical cases.

By using system thinking and adopting an explanatory position, the SPP motivation mechanism has been briefly introduced, so that the research goal 4 – ‘To explore the value and role of demand orientation in SPP theory and practice’ has reached an early-stage findings. This chapter identifies the topics and issues of semi-structured interviews for further qualitative studies that have identified a range of exploration areas for data collection.

## **Chapter 4 Methodology**

### ***4.1 Introduction***

Chapter 2 and 3 have reviewed the literature on SPP motivations. Based on literature collection and critical analysis, the existing gaps and problems are identified, and the basic concept of the exploratory and comprehensive SPP motivation mechanism conceptual framework has been established. This will also contribute to selecting research methodologies.

This chapter seeks to identify the most appropriate research philosophy, methodology, and detailed strategies and tools to answer research questions and achieve research objectives. It is essential to explain the way of applying system thinking in designing research methods and the choices made by the research methods and paths are reasonable.

SPP has involved various stakeholders, where their personal demands and interests become the main reason of the complex motivation system. This research has highlighted the 'people-involved' impacts which the research could hardly be designed to follow objectively fixed methods. Instead, a more 'live' experience-based research in order to explore the complexity of SPP.

Literature research has found that SPP includes diverse motivation factors and it is an interconnective process. SPP motivation could be influenced by environmental factors while those factors are the motivation sources as well. Therefore, the motivation factors of SPP have shown a non-linear while interacted attributes as well as

strength or recycles. It is effective for this research to connect SPP motivation with an open system thinking.

According to the origins, objectives and characteristics of this research, it has been determined that this research will apply system thinking and adopt a mixed research approaches and strategies to conduct qualitative research. In this research, ontology emphasises the integration of the natural world and the human world. Epistemology emphasises the integration of constructivism and interpretivism. As for the methodology, this research learnt from system theory, Neo-Naturalism and Phenomenology idea.

The combination of qualitative research and single case study has been designed to enrich this research. Based on the inductive research methods to enhance the understanding of changing environment of the research area and explore the core elements of SPP motivation. This chapter explores the details and methods of case studies, identifies the process of collecting and analysing data, and discusses the ethical issues involved in case studies.

This chapter aims to determine the methodology, research approaches, and necessary steps to progress research objective 2 – ‘To design and construct an exploratory and comprehensive conceptual framework of SPP motivation and improve the theoretical and practical understanding’.

By using system thinking and theory, the qualitative research strategy and the proposed case study plan are determined in the completion of research objective 3 – ‘To determine the structure, key components and functions of the SPP motivation conceptual framework’.

Moreover, this chapter will support the development of a detailed plan for a case study. It includes the design of interview topics and progress to fulfil the research goal 4 – ‘To explore the value and role of demand orientation in SPP theory and practice’.

The following structure of this chapter:

In the first part (section 4.1), based on the original designs and characteristics of this research, it will provide a background for selecting research strategies and methods.

In the 4.2, research philosophies consider the research paradigm from the perspectives of ontology, epistemology and other methodology concerns. It will focus on Interpretivism and the implementation of this research. Moreover, this section will also discuss Neo-Naturalism and Phenomenology, and explore their idea that could be included into this research design.

The third part (4.3) is the application of system thinking and system methods that have been implemented. This section aims to explain the connotation of system thinking and system approach, and determine the way in use this research.

In the 4.4, qualitative research paradigm and design will be discussed. This section will analyse the nature and characteristics of the qualitative research paradigm, explain the reasons for choosing qualitative research methods in this research.

In section 4.5, it will give an explanation of case study design. It is crucial to design and develop a case study plan for this research. It has introduced the design of single case study and semi-structured

interview.

Next section 4.6 is the introduction of a data analysis process which focuses on the manually and software-based analysis tools.

The next section – 4.7, will focus on the design of the validation process in this research. It will explain the process of validating in later this research.

In the last part, ethical issues will be discussed in section 4.8 and followed with conclusions in section 4.9 for this chapter.

## ***4.2 Research philosophy***

### **4.2.1 Ontology and epistemology**

Philosophy is the methodological guide to scientific research.

Research philosophy is a system of beliefs and assumptions about the development of knowledge (Saunders et al., 2016). In order to progress a research, it is necessary for researchers to determine the relationship between research questions and priorities and specific research philosophy. Choosing a particular philosophy as a guide begins with determining the epistemological position and determining the basic way of thinking and methodology of the research, which will influence beliefs or ideas for collecting, interpreting, and analysing the data, and decide how to develop new knowledge and obtain effective knowledge as needed, and establish an appropriate research process (O'Gorman & MacIntosh, 2014).

Since each research philosophy has its own characteristics, the choice of research philosophy is based on the research objectives. The better option is to find a suitable philosophy, rather than discovering a unique (Saunders et al., 2016).

The world is divided into the natural world and the artificial world. Both of these have their objective and subjective existence, which are known and can be recognised through different methods and approaches – objective and subjective. Although the use of these terms is more prevalent, it may be useful to clearly distinguish these terms in research (O'Gorman & MacIntosh, 2014). Although the artificial world (that is, human society) has an objective and identifiable phenomenon similar to the natural world, it is not entirely equivalent to the natural world. Human society is in an objective and real state.

SPP motivation in this research is a social science research. Although there are objectively recognisable phenomena similar to the natural world, they are not completely equivalent to the natural world. It is a kind of objective world with a subjective core (Bell et al., 2018). The question in this research is – 'How to design and develop an exploratory and comprehensive conceptual framework of theories and practices that have the potential to improve the motivations of SPP?' Although this research topic explores a conceptual framework that follows objective laws and meets objective needs, it necessarily involves subjective factors and subjective creativity. Compared with the natural sciences, as a human-centred constructive social science research, it is more

complicated and changeable. Once the research is involved, it is in the state of construction and interpretation.

#### **4.2.2 Interpretivism**

Interpretivism emphasises that human beings are different from physical phenomena because they create meaning. People from different cultural backgrounds, environments, and times have a different understanding, so they create and experience different social realities. This point is very significant for this research.

Interpretivism is a process of constantly interpreting the social world, by interpreting the actions of others, leading to the adjustment and creation of the meaning of a person's behaviour (Saunders et al., 2012).

SPP practical activities and the establishment of motivation theory are always human-centred activities and cannot be separated from the subjective factors of different stakeholders involved. This research will also study the influence of 'demand-oriented' on the motivation mechanism of SPP and propose new theories in these fields. People's subjective condition is very important. Therefore, to explore the mechanism of people behaviours' occurrence and persistence, it is important to understand why people construct it in their ways. It is to understand the significance of environment and human behaviour to SPP motivation, and to understand the differences that lead to SPP motivation and the hidden significance behind them.

Human and organisational behaviours are complex and variable. First of all, people have multiple ways of existence, including natural attributes, social attributes, and spiritual attributes; multiple attributes of people are not existed in isolation (Sun, 2014). Second, people's multi-dimensional existence space, living in the natural environment, organisational environment and social environment, environmental differences are important reasons that lead to differences in people's behaviour. Thirdly, human's disguise tendency, people tend to hide their true purpose and true feeling It is more difficult to judge human behavioural addiction (Babbie, 2018); Fourth, the uncertainty of human behaviour. Occasional and irrational behaviours often occur (Hu, 2016). If people and their behaviours are as such, the SPP motivation as a social phenomenon aggregated by human behaviours are even more complicated. The more complex the research object, the more difficult it is to analyse and explain logically, and the higher the challenge is to the research task of revealing causality,

Through literature research, it is preliminarily found that SPP has many motivation factors, which comes from complex environmental factors, and involves many subjects and stakeholders. It is still an immature research field at present. Based on the methodology of Interpretivism, it inspired this research to choose the suitable method to obtain a series of real data from different angles and to choose an explanatory and inductive research path. This means to observe the motivation mechanism of SPP from the perspective of different people, obtain a series of real data from different angles, and finally consider the complexity by collecting content that is meaningful to research participants.

First of all, the explanatory power of the theoretical assumptions deduced by the existing theories has shown insufficient and the conflicts of some traditional theories are difficult to explain. The main reason for this theoretical conflict may be the loss of elements or attribution fallacy in the extraction and generalisation of existing facts. Therefore, it is not a simple deduction of verifiable assumptions from existing theories to try to summarise and refine the internal logic of SPP motivation mechanism from qualitative materials – first-hand interview data.

Secondly, qualitative research strategies are most suitable for revealing the potential meanings, relationship patterns and stakeholder perspectives between structures (Shi & Li 2017), which are sometimes difficult to achieve through quantitative research. Quantitative research is difficult to judge the causality between related factors, and it is even more difficult to explain the specific behaviours of complex stakeholders in purchasing activities. Qualitative research, using interviews as a tool, can better enrich the perspective of the existing research and combine more abundant qualitative materials with statistical inference, thus making the theoretical construction more comprehensive and plentiful.

This research work is exploratory. The observation in-depth of the SPP situation seeks to explore the hearts and behaviours of stakeholders, which is difficult to achieve by other research methods. If the research failed to go deep into the SPP process and participate in the crowd to observe, some knowledge would never be found.

Therefore, Interpretivism provides methods to solve the research problems. Hermeneutic analysis is also one of the more popular methods in procurement and supply management research (Russell and Meehan, 2014), which increases the richness and critical analysis of data in research cases. The qualitative case study method is especially suitable for the design of multi-level analysis units with numerous variables. It is an ideal way to accomplish this goal (Baškarada, 2014; Denham & Onwegbuzie, 2013; Yin, 2014).

This section 4.4 will further explain the detailed design of qualitative research and case study.

#### **4.2.3 Idea of other methodology and research approach**

Neo-naturalism advocates the study of social phenomena through the research model of natural sciences, thereby promoting scientific research on social phenomena (Wang, 2012). Under the influence of this concept, natural sciences such as evolutionary biology, cognitive science, and psychology. It is generally infiltrated into the contemporary social science research model, which makes the research show obvious naturalisation characteristics. This research needs and should draw on the research model of natural science, and then learns reasonable idea from it to construct own theoretical framework, such as interdisciplinary theoretical construction, using social psychology, cognitive science and sociology to make this research new progress.

Phenomenology, as a philosophical concept, opens up a new way of the philosophical methodology through a new understanding of the

relationship between essence and phenomena – towards the facts themselves (Bell et al., 2018). It could be believed that through in-depth interviews and even participatory observation, researcher can be more deeply immersed in the 'field' of SPP motivation mechanism than scholars using other research methods (Barney, 2009; Mao 2018). It aims to explore how participants create and provide insights into specific parts of society from the perspective of specific groups, that is, from the perspective of research participants (Ritchie et al., 2013). This is helpful for researchers to deeply understand the problems studied, extract important concepts and themes from practice, and sum up enlightening and innovative opinions to ensure the significance and enlightenment of research results to practice.

Phenomenon advocates the direct appearance of phenomena and reality-oriented. The emergence of facts is a way of real existence. In the phenomenon, the essence can be directly grasped. This is a process of 'one smooth motion' (Bryman, 2016). With phenomenology as a methodological guidance to examine the relationship between phenomena and essence, the difference between general and individual is no longer in the ontological sense, but only the product of different ways of domination (Creswell & Creswell, 2017). Individuals are hidden in general, generally also immersed in the individual, so there is the possibility of 'intuition to the essence' and 'intuition at the category level' (Zhang, 2004).

Based on the methodology of neo-naturalism and phenomenology 'towards the truth itself', this research applies the in-depth interviews to carry out case study, so as to expose researcher to

situational activities in the real world to discover those unobservable causal mechanisms implied in empirical phenomena and to explain them in depth (Denzin & Lincoln, 2011). The content of the participants' psychological world may be revealed by the participants' words in the form of beliefs and structures, or the participants' stories themselves represent the partial identity of participants.

As a theory with scientific methodology meaning, system theory has been widely applied in various fields of natural science and social science, and system analysis method has also been widely applied. Learning from the system thinking and system-based research methods to carry out this research, it is helpful to realise the research goal by analysing the interaction and restriction relationship between the whole and part (elements), the whole and the external environment, and among the various parts (elements) of the motivation mechanism of SPP. The next section 4.3 will be devoted to discussion.

Based on the above ontology and corresponding epistemology, it is also unrealistic to study whether to choose the 'best' method under a certain paradigm and perspective such as positivism, constructivism or criticism. The positive approach is to get rid of the shackles of 'purity' of epistemology and methodology and adopt a pluralistic attitude towards various research paradigms and analytical methods or 'complex thinking paradigm'. Make the research advance in the direction of pluralism but still rigorous (Sampson, 2018).

### ***4.3 System-based thinking and research method design***

SPP motivation conceptual framework has shown a logical system instead of single concepts or combinations. It has highlighted the foundation of the framework which are clear concepts, proper determinations, correct inference, and strict logic. The conceptual framework based on logic and system thinking could be generalised and implemented into practical issues.

According to system theory, any system consists of elements and sub-systems. They are allocated based on specific structure and contribute on their value. A system should follow three requirements:

First, the system is composed of many elements according to a certain structure. The elements are the basis of the existence and development of the system, and are the most basic elements in the system. Second, there are organic connections between the elements in the system. For the internal and external structure and order of the system, there are interactions and interconnections between system elements and elements, between elements and the whole, and between the whole and the environment. Third, the system has specific functions and elements within the system. The composition and structure of the movement ultimately determine the function and value of the system.

Based on the system idea, a system-based analysis method is beneficial to this research. In the process of SPP motivation mechanism research, one of the core objectives is the transformation of subject thinking. The transformation is going to change the understanding from local to system-centred, from linear

to nonlinear, from horizontal to vertical. The method and system analysis method are unified, which opens up a new path for understanding the development of the object and its movement, and promotes the profound qualitative change of the research methodology and research paradigm.

SPP is a goal-driven public sector entity activity, and its drivers are characterised by diversity and complexity. As discussed in section 3.3.2 of this research, they should first be considered as an overall system which is goal-oriented and exhibits all other characteristics of the system. SPP power consists of complex, multiple elements. Studying these factors and their relationships should be based on a holistic perspective. For example, to implement SPP, the pursuit of environmental goals cannot be separated from social justice. In order to achieve sustainable development, both dimensions must be considered.

System thinking suggests that it is not only to see the speciality of things themselves, but also the universality of things in the development of things in the whole world. Policymakers, scholars, and analysts are increasingly concerned about the challenges posed by policy complexity.

By using the system analysis method, this research can deeply explore the SPP motivation mechanism. The overall effects of the various driving forces of SPP are related to each other, interaction, movement of elements or interactions between elements. Investigating this intrinsic motivation mechanism helps to accomplish the objectives of this study.

In summary, this research adopts the system-based method, which is to carry out this research from the perspective of system, and put the SPP motivation mechanism into the overall system of sustainable development for scientific investigation. By analysing the interaction and mutual constraints among parts, elements, external and internal factors, it is comprehensively and accurately explore and construct a conceptual framework with a better overall functionality.

#### ***4.4 Qualitative research design***

The scientific nature of research methods and the use of the specific method are the key ways to enhance the performance of social science research. The choice of research method should take into account the characteristics of the research object and be subject to the research purpose itself.

Through literature research, it is initially found that SPP has multiple driving factors which are affected by complex environmental factors, and involves various subjects and many stakeholders. It is still an immature research field. This research has been designed to build up a comprehensive analysis of the relevant influencing factors of the SPP motivation mechanism. It is necessary to consider not only the influence mechanism of specific environmental factors on the motivation mechanism of SPP, but also the variable category caused by the factors of participants (human) and its influence mechanism on SPP driving factors (Wang, 2014). The combing and argumentation of theoretical research alone will be

divorced from the actual factors, and it is impossible to fully reflect the real situation. Therefore, the SPP motivation needs an exploratory qualitative study.

Qualitative research is a situational activity that places observers in the real world (Denzin & Lincoln, 2011). The researcher is part of the research tool to explore social phenomena in the natural context (Qu, 2019). The general purpose of qualitative research is to look at the perspectives of specific people. Qualitative research aims to learn the perspectives of the research participants, being a research participant into exploring the meaning, creating and providing insights into particular parts or parts of the social world.

Interpretivism research prefers to have qualitative methods as supports. The research context of qualitative research is not manipulated and interfered by researchers. Researchers use a variety of open approaches such as observations and interviews to keenly capture and collect information related to the research object, including personal experiences, thoughts, attitudes, and feelings. And the substantive performance of the event (Denzin & Lincoln, 2011; Yin, 2013), interview recordings, written materials, documents and on-site descriptions of the records, etc., will help the emergence of data, explore the reasons behind complex phenomena, and bring new insights to phenomena. In addition, the research designed to understand or explain the phenomenon according to the explanations that people give to the phenomenon, based on the inductive logic, can expand the theoretical boundary and construct a new theory (Denzin & Lincoln, 2011; Qu, 2019; Yin, 2013).

This research will apply exploratory qualitative research methods (see Table 4-1). It has been believed that researcher could better be involved in SPP motivation field by using an in-depth semi-structured interview. The interview will help to enrich the understanding of research problems and summarise important concepts or theme as innovative findings. By constructing a conceptual framework to promote theoretical and practical research, it is not limited to the description of real-world experiences, but combined with critical opinions on original theoretical research and contributes to further research.

Interpretivism runs through every stage and all processes of qualitative research, which is also a common feature of qualitative research. In research, interpretation is to give meaning to the data. This is a process of reasoning, providing insights, giving meaning, sublimating understanding, drawing conclusions and inferences. This interpretation is a general, generalised summary of individual, special events. Attempting to understand or explain phenomena according to the meaning given to them by the people, based on inductive logic expansion, can expand theoretical boundaries and construct new theories.

The qualitative case study method is particularly suitable for situations with many variables and the design of multi-level analysis units. It is the ideal way to accomplish this research (Baškarada, 2014; Denham & Onwegbuzie, 2013; Yin, 2014). Therefore, this study chose case study to provide evidence for the research topic. Through case study, the researcher will conduct in-depth and holistic research on the research question. Through interaction with

the research participants, to obtain an explanatory understanding based on the data. It could be used to confirm the elements of the conceptual framework, and enrich the overall findings. This is explained in details in the next section.

**Table 4-1 Qualitative design (Adapted from (Saunders et al., 2016))**

Research design properties	Qualitative	Within this research
Research philosophy	Interpretivism	Interpretivism
Research approach	Mainly inductive. Deductive is possible. Abductive is also possible and used	Mixed inductive and deductive
Research strategies	Action research, case study, ethnography, survey, grounded theory, experiment, narrative inquiry, archival research	Case study as overall research focus
Characteristics	Examines participants' meanings and relationships between them to develop a conceptual framework. Data analysis is not statistical. Data collection is non-standardised. Data sampling is purposeful	Concerns about participants individual ideas; participants selection has particular criteria; data comes from different types
Beliefs about the nature of reality	There are multiple realities: reality is not purely objective, and does not exist independent of the people who interpret it	People-involved research has to consider about people idea about questions
Quality assurance	Construct validity, confirmability, internal validity/credibility, external validity/transferability, reliability/dependability. In-depth information/data on a few cases	First validity is a participants quality; second validity is the processes of analysing data

## **4.5 Case study design**

### **4.5.1 Reason for applying case study**

Qualitative research is not a 'walk' in the field. An effective strategy is to penetrate the hidden parts of the social potential through specific subtle case discoveries, and those expected answers could

be unearthed. This research work selects case studies as a tool to help achieve research goals.

This research work is exploratory and it contributes on an in-depth observation of the SPP situation which seeks to explore the hearts and behaviours of stakeholders. This is difficult to achieve by other research methods.

Case studies are a useful way to combine current theoretical knowledge with new insights gained from empirical data to validate or extend theory (Yip & Hsiao, 2014).

This research focuses on the primary health field and attempts to fill the gaps in research in this area. At the same time, SPP is considered to involve multiple entities and many stakeholders. The human factor is the main reason for the complexity of SPP motivation mechanism. There is a lack of substantial research bases to extract data in this area, and there is insufficient market data to support tools such as quantitative research surveys. On the contrary, it requires particular in-depth observation and exploration. The qualitative case method can be used to obtain more empirical data in practice and research.

#### **4.5.2 Case selection**

The researchers selected the Beijing area of China as a single case study. This choice is based on the sample's good typicality and has several advantages.

- (1) As the capital of the world's most populous country, the research topic has rich historical information and social capacity.
- (2) The region has a good social natural mechanism in the research area (primary health service and SPP) to spontaneously maintain the daily and 're-daily' external intervention factors.
- (3) In the field of SPP, Beijing as the national role model, has strong commonality and demonstration for emerging countries in the world. It is suitable for expanding, extending and integrating the various political, social and cultural factors in the breadth and depth.
- (4) Because of the above conditions, it has a more concentrated, extreme and comprehensive social mechanism with greater scalability.

A more complete introduction of the sample area is detailed in Chapter 5.

#### **4.5.3 Qualitative interview design**

The interview is probably the most widely employed method in qualitative research because it is good at understanding people's views, meaning, situation definition and realistic structure (Punch, 2014). This research has been designed to apply a semi-structured interview instead of structured or unstructured. A structured interview usually has been utilised into quantitative analysis and unstructured open interview is not suitable in this research field as the participants are managers and government officials, which could

better be more formal. A semi-structured interview will not be fixed or limited with format while encouraging researcher and participants sharing information. It creates a flexible context to obtain and explore the interviewees' idea and psychological feelings, which are valuable for this research (Collis and Hussey, 2013).

In this research, interview questions have been designed based on literature review findings and original conceptual framework. During the interview, there will be a focused topic on 'demand-oriented SPP motivation' as well as a list of designed questions (see Appendix 2). The design of the interview question will be kept in the same throughout all the interviews to ensure all the participants have the same question list.

During the semi-structured interview in this research, there usually has a list of questions or topics that are designed previously. It also could be regarded as an interview guide but it is still free to let interviewees respond freely. During the interview, there were plenty of sub-questions that had been asked based on each interview situation. Under some general questions or concepts, interviewees are welcomed to discuss as long as they wish and the answers will then be separated into the specific area during the data analysis process. In a word, interview design aims to build up a brief structure and explicit mainstream of research focus while questions and answers are left with an open area to interviewees.

#### **4.5.4 Sample selection**

Given the interpretation and inductive nature of the research, a non-probability sampling approach is appropriate. Qualitative samples are often purposeful, not random. In this research, it could not be reliable if selections were all given in random, which may miss essential samples. Therefore, in the qualitative research process, according to the research aim, the sample should be selected more actively, and strive to extract those can provide the most extensive research questions.

There are several non-probability (non-random) sampling methods that can be used to select respondents – quota sampling, risk sampling, volunteer sampling, and others. These methods are not suitable given that the sample of the study requires specific requirements in terms of professionalism, experience, and career.

Purposive Sampling is the method of choice in this work. It is not just a sampling method for simplicity, but a carefully selected sampling strategy for research purposes. Most of the samples in the qualitative study were selected using the judgments, and the others were from the interviewees to make recommendations to other potential participants. Sample selection is flexible to try to connect with more participants during a limited data collection time.

Since primary health procurement is a relatively specialised area, the research uses a 'satisfactory' sampling method that takes into account as typical and as representative as possible. The study invited 40 people to participate in the interview. They are come from government agencies, academic research institutions, medical service institutions and related companies. All the invitations have

been replied in time. Due to the researcher could not always live in the participants' place, the face-to-face interviews were arranged in a fixed period of time. Due to the arrangement of working hours, four of the preselectors were not in the place at this time, so they could not accept the interviews. The non-participants are duplicates of the relevant departments and role types (e.g. the same roles of the same institutions or departments). In the process of selecting the participants, substitutes for other interviewees have been prepared, so the coverage of the sample in this research has not been affected.

36 people have successfully joined this research and they have agreed with the consent form and ethical issues. Since June 2017 to August 2017, face-to-face interviews were conducted on 34 of them who met the research criteria. Some problems worth further investigation were found in the data processing process after the interview. 6 of them who knew the relevant problems were interviewed twice in the following 6 months. 2 professionals were reserved to participate in the validation process of the later research results (See Figure 4.1).

The main reasons for the second interview are as follows: First, 2 of the interviewees were interrupted during the first interview due to temporary work needs and agreed to continue to complete the interview at another appropriate time. Second, 2 of interviewees covered very useful contents in the first interview and promised to provide relevant materials and data after the interview. The second interview mainly focused on receiving and inquiring about these materials. Third, in the process of data processing, it was found that

the recording of 2 interviewees' conversations were not complete, but the content was very important, so second interviews were conducted to confirm and supplement the relevant content. All interviews have been completed and interviewees are encouraged to fully express their opinions until they are saturated with new information on the subject. Because researchers and participants are limited by different locations, the second interviews were conducted via phone calls and WeChat audio.

As the policy and regulation makers and managers of health service and public procurement, the government departments have three levels of management institutions at the central, city, district and county (basic level) in the region. Government organisations at different levels have different functions and responsibilities, have different functions, and play different roles. Therefore, participants should be invited separately. 2 representatives of central government departments, 8 city-level government representatives and 4 regional government representatives were selected. The reason why there are more representatives of cities and regional governments is because that the primary decision-making and management of the region are in the urban two-level organisation. There are many management departments at the same level involving SPP in health service at all levels, including the health department, the financial department, the human resources and the social security department. There are essential and direct responsibilities and powers for health service procurement. Therefore, it is necessary to determine the samples separately. At the same time, the industry management organisation is closely related and needs to be included. These interviewees cover these

institutions and key departments, such as the responsible person of the centralised procurement organisation in the region. Given SPP has become the focus of internationalisation and global governance, a representative of a scholar who serves World Health Organisation is invited.

Another group that was heavily sampled was a participant in a medical institution with a total of 12 participants (9 of them are come from CHS institutions and the other 3 are from public hospitals). It has been mainly considered the primary health service field which are community health service institutions. Meanwhile, SPP motivation have different research reference values in different regions due to the differences such as economy, population, geography and resources. Since the procurement of most primary health institutions is homogenised, the research only uses the necessary difference type as the sampling standard. It does not consider the proportion of the total number of samples covered, because the SPP of most institutions is homogeneous and it is hard to accomplish the plan within a short time. The participants come from large hospitals and should be associated with primary health institutions, and they are experienced professionals in this field.

Considering the needs of the theoretical construction of this research and the relevant reforms in the sample areas, the expert opinions of academic institutions are particularly worthy of attention. Therefore, 7 academic experts were invited, who are experienced scholars in medicine, health economics, and public procurement. They are mainly come from the world's top 50

universities – Peking University, Tsinghua University and other research institutions.

#### **4.5.5 Interview process design (during the interview)**

To ensure uniformity of research, the consent form was prepared for this research (Appendix 3). The interview guide provides consistency to ensure the same question is presented to each participant (Yin, 2013, 2017). The interview guide and open-ended questions for interviews were revised and improved by feedback from experts and scholars with practical or academic experience in the field. The interviews have been allowed to make recordings and supplementary records for analysis. Therefore, the interview with the original data was obtained through the integration of recording and manual notes.

Each participant gets as much time as possible to fully express their views in the interview. In fact, each participant's interview time depends on their length of response to various exploratory discussions.

The interviewee can withdraw from the interview at any time. Since the respondents are professionals, and the explorations conducted in the interviews involve their professional practice, so that the likelihood of a negative impact on the interviewees could hardly exist. Interviews were conducted at the location chosen by the respondent, usually at their place of work, to ensure that the respondent feels comfortable during the data collection process.

Respondents were informed that their names, contact details and the names of the organisations they work for would be kept confidential. At the end of the interview, the respondents were asked if they were happy with the data provided to the study and they agreed without reservation.

In order to prove that the results of this research are reliable and have practical application value, research has invited 3 participants to validate the research findings and results. The validate results may be used to improve the framework and also to establish the future research direction. The validation process and methods will be described later in this chapter.

## **4.6 Data analysis methods and process**

### **4.6.1 Data analysis process and tool**

The first step to use open-ended qualitative questions to ask respondents what they think about sustainable primary health procurement and what they think about drivers or motivations. At the end of the interview guide, the last question was asking them – *'What factors do you think are the driving factors for SPP? What do you think is the most important force driving SPP?'*

The first phase of the data analysis is intended to outline the nature of the engagement with SPP in the conceptual framework and the perception of respondents' attitudes and drivers of SPP activities. Qualitative data was collected to gain a deeper understanding of issues related to SPP motivation.

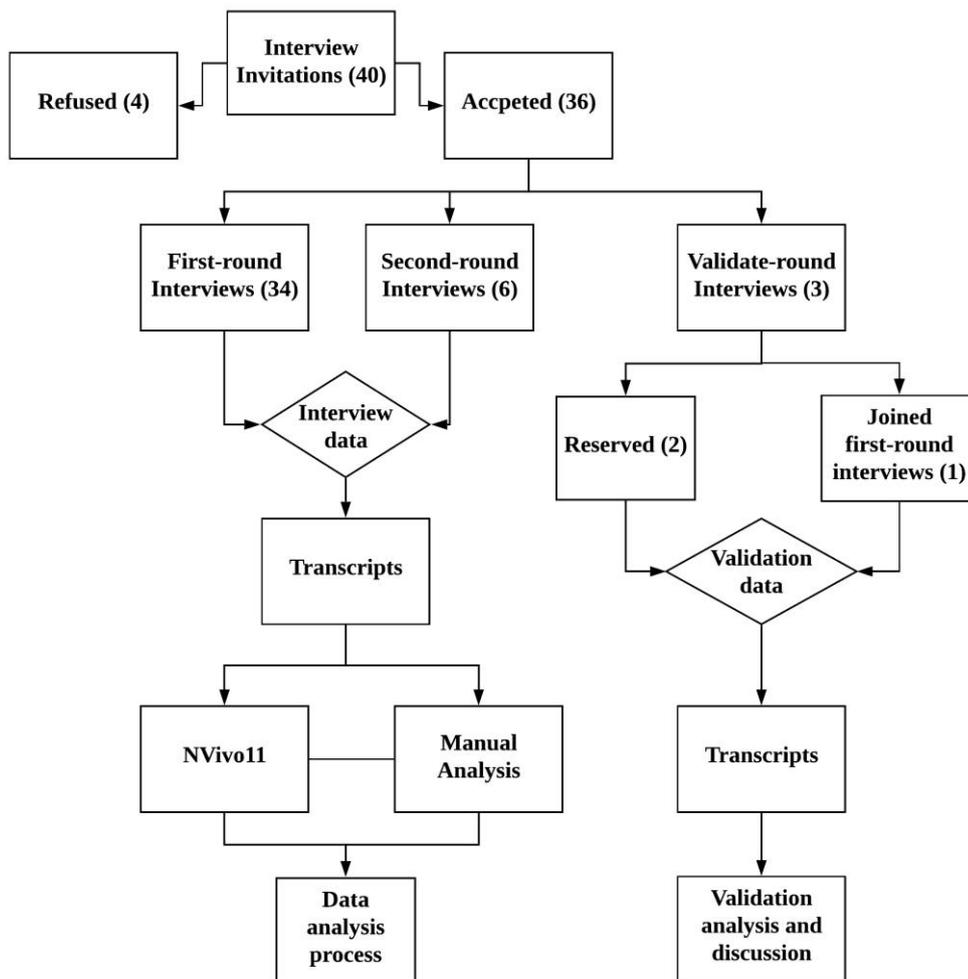
The analysis and collation of interview data follow the following principles. First, the combination of the theoretical drive (deductive) and the data drive (inductive). A mixed approach was adopted for the research using some of the previous structures developed from the existing theoretical literature, but also allowed other questions to be generalised from the data (Saunders et al., 2016). Based on the results of previous research, the analysis will focus on the exploration of SPP drivers and the revealing of sustainable motivation mechanisms. Second, the analysis is based on the 'theme'. Discard the irrelevant details in the interview text and judge the meaning of the information according to the consistent meaning of the text context. Therefore, the theme of the text defined by the context is the basic unit of analysis in this study.

The Nvivo11 is used for raw material analysis and combing, and the coding analysis is carefully performed. Convert interview records to code numbers and perform qualitative data analysis (Azeem et al., 2012). The research used thematic framework analysis to organise and analyse the transcripts within NVivo11. Encoding has been used to protect the identity of research participants. Each participant in the study had the opportunity to review interview records (Harper & Cole, 2012).

By utilising inductive analysis and NVivo11 software as well as manually traditional analysis, the data analysis could be reduced with the risk of losing any context in the data analysis process (Interview process in Figure 4.1).

According to Figure 4.1, the original data was organised into two steps. First, some of the recordings that are understandable and

easily to support further analysis were directly inserted into NVivo11 software. Second, the other raw data may require a manually transcript before stored into software files. Another reason that some of the raw data may need a further organising is because a majority of interviewees were given the question list before meeting and they prefer to have 'big' answer that may include many questions together. In this stage of data collation, the interviewee's answer content will not be processed more to ensure the authenticity of the original data as much as possible. In the subsequent software processing, additional steps will be taken to deal with this problem so as to obtain the quantitative results conveniently.



**Figure 4-1 Interview process**

#### **4.6.2 Coding process**

According to Appendix 1, the recording time of 36 interviews and the supplementary interview information can be seen. The sorting of the original data is divided into two steps. First, the recording is translated into text format data by online translation software. Since the software translation cannot completely transfer the accurate content, after obtaining the text format data. In the second step, the researcher carries out secondary processing on the

text data according to the supplement of the interview notes. Because the interviewee already knew the interview questions in advance and there were also some personal expression characteristics, some answers did not follow the order of the questions or gave information of multiple questions simultaneously in one answer. In this stage of data collation, the interviewee's answer content will not be processed more to ensure the authenticity of the original data as much as possible. In the subsequent software processing, additional steps will be taken to deal with this problem so as to obtain the quantitative results conveniently.

### ***Organise interview data***

Create an NVivo11 database and store 34 interview data in the software as an 'external file' (Validation interview data analysis will be introduced in section 4.7). The originally recorded data is stored as a recording file for verification when the text content is mismatched due to translation.

To provide respondents with a relaxed and free environment for commenting, interviewees were less likely to interrupt when they answered questions. For the combined answer and repeated emphasis on the question, the necessary sub-questions and confirmation were carried out, and the notes were taken seriously. Perform three steps on the text data before running the software data analysis.

First, based on interview questions, based on the conclusions of theoretical research, some of the interview questions in the

conceptual model are merged. The merger is based on multiple interview questions for the same 'theoretical focuses' or 'theoretical themes'. Secondly, the partial interview answers have been split up, and the data content of the multiple questions mentioned in the answer was manually processed to ensure the original expression. Content, but decomposed into various questions or repeated responses set to different questions. Thirdly, some questions that the respondent did not answer instead they raised new concerns, as well as repeated emphasised questions have been explicitly marked to make it convenient for later coding and categorising.

### ***Creating nodes***

The node design mainly includes three categories.

First, according to the number of interview questions, 21 nodes are set, and the responses of different respondents to each question are stored in the corresponding nodes. This node set can help with later data analysis. When it is necessary to analyse several questions under a specific topic, it can be analysed by selecting a number of corresponding nodes (corresponding to interview questions) to obtain local data results.

Second, according to the interviewee, 36 individual nodes and 7 composited nodes are set. The 36 nodes were designed according to the demographic characteristics of the interviewee, and the identity of the research participants is protected while distinguishing their respective attitudes. The 7 integrated nodes are combined according to the categories of the interviewees' occupational

characteristics to distinguish the different roles. At the same time, by highlighting the different concerns of different positions, the characteristics of the research results are displayed.

Third, design innovation nodes, the different opinions or new content proposed by the respondents in the relevant topics, or the innovation problems mentioned in the open questions of the interviews, are preferentially stored in such nodes. In this way, it is convenient to extract similar or high-frequency content for encoding in subsequent analysis, and centralised storage provides assistance for subsequent research.

### ***General Coding***

The textual compilation of 36 respondents is a vast work. To ensure the real and reliable presentation of basic data, general coding has undergone three stages.

In the first phase, run the query and search for high-frequency vocabulary. Conduct an in-depth analysis of the preliminary collation data to clarify the objective phenomena reflected in the data. At the same time, the original concept label based on the interviewer's original words is formed. The study used Nvivo11 to run high-frequency word scans on all files, and through the 'query' function, search for 'all materials' to get all high-frequency vocabulary (See Figure 4.2 Coding process).

In the second phase, manually search for core concepts. Because SPP research involves multiple theoretical areas, respondents have some differences in career, status, and personality. Therefore, the

content of the interview is significant, and the respondents' answers are more complicated. To ensure the accuracy of the research, a comprehensive manual coding was performed to assist. In the previous data processing process, manual processing of raw data laid a foundation. At the same time, the researcher conducts interviews, is familiar with the interview content, and can fully consider the psychological, attitude and behavioural factors of the interviewees during the interview. Manual coding mainly encodes some short sentences or high-frequency words that are not displayed. Those codes will be added into general code.

Other search run features complement the third phase. According to the software function, after searching for high-frequency words, put some keywords into the 'search bar' for secondary search, and you can get the relevant results of the keyword and 'fuzzy meaning' expressions. The general code is expanded by finding the preceding and following sentences or finding the original data to express the original sentence. At the same time, the exploration of the surrounding sentences can help with subsequent coding integration and theme design.

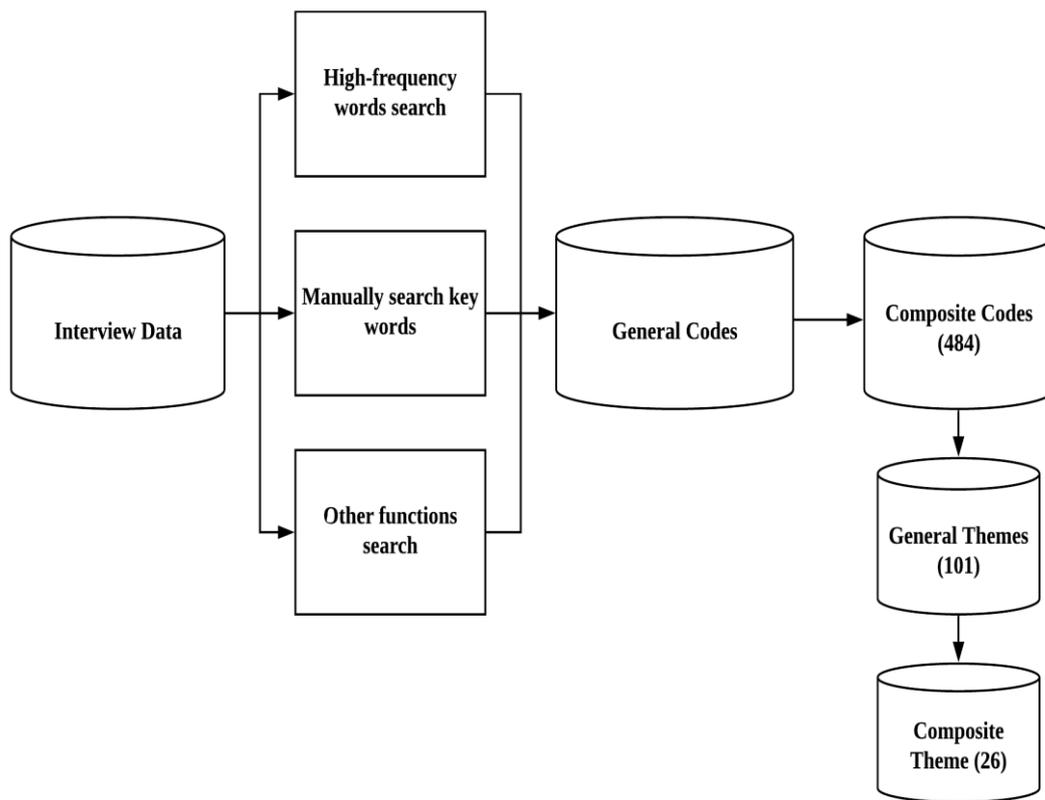
### ***Composite codes***

After the above three steps of the general coding process, the total general codes are in a large quantity and contain repeated or irrelevant codes. The second step to organise these codes is to create composite codes (CC) to make a fundamental categorised analysis. Based on the query search results and manual analysis during the general coding, most of the codes can be merged into

similar concepts. Another part of general codes reveals a similar idea but in different angles. These codes have been widely found by running key words query which the software will show the whole sentences of the words. By separating varied meaning codes, they will then be counted as different CC, which also useful to further analysis when comparing different participants views on the same question.

### ***Themes***

Continue to run through the software search results and further analysis of the data during manual coding, merge the same type of code to integrate the general themes – 101GTs. Add logical relationships and join the general themes to get 26 composite themes. At this point, the 26 integrated themes of the interview results can be summarised into 6 major themes (MT). It is gratifying to note that the results of the interview study should be based on the theoretical conclusions and conceptual framework obtained from the literature research.



**Figure 4-2 Coding process**

The research formed six major themes (MT), 26 integrated themes (CT), 101 general themes (GT) and 484 composite codes (CC). The overall coding summary is in Appendix 5.

#### **4.7. Validation of research results**

It is because that some researchers have proposed to conduct necessary tests on the results of qualitative research (Yin, 2013), there are a group of methods and models to explore the validation results (Gallardo-Vázquez & Sanchez-Hernandez, 2014). Validation in this research will provide some confidence that the results are reliable and showing practical value, and that the results obtained

may be used to refine the framework and to establish future research directions.

To validate the results of this qualitative study, according to Johnson et al. (2006), the criteria required for transferability were established. In this research, the conclusions of this research were developed by investigating from experienced professionals who are directly related to SPP and obtaining feedback on the applicability and usefulness of the conceptual framework. This measure is also intended to enhance the confirmability and ecological validity of this study (Johnson et al., 2006).

The research areas and scope explored by the inspectors maintained the domain consistency with the beginning of the study, as well as semi-structured interviews, based on the initial data utilisation and testing. Because the nature and requirements of the data required for the test have not changed, the model and procedures for the semi-structured interview of the case study are still implemented.

To determine the credibility and transferability of the SPP motivation conceptual framework, a new database is available for testing through interviews. The new database has nothing to do with the initial interview dataset, which supports credibility assessment criteria and increases confidence in the results of this study.

The interviewees are people who are experienced in SPP in different organisations and different departments. Respondents were from government authorities, academic research departments, and

medical departments. They were all directly involved in SPP policy research, designation, or direct participation in the procurement process.

Research reliability and credibility are the focus of validation. Bryman (2016) believed that the validity of the research is related to the completeness of the conclusions drawn from a study and should be proven to be appropriate and sufficient. The concept of reliability is very close to another research standard - replication, and the reliability of research results should be reproducible and scalable (Bryman, 2016).

In the interview, the interviewees focused on the effectiveness of the target orientation and driving mechanism of the SPP motivation mechanism framework, and introduced the theoretical design and case study to the design and improvement of the framework, and sincerely sought the opinions of the respondents.

The ultimate goal to achieve through the validation process is to ensure that the research objectives are met on schedule. Although the case study faithfully follows the interview data to construct this conceptual framework, again measuring results with different respondents and different perspectives does enhance reliability and is beneficial to the conceptual framework.

The interviews are also semi-structured and open, and the respondents' evaluations and responses have certain flexibility. Among them, the key issues are,

1. Are the six themes that form the main components of the SPP motivations framework appropriate? The theme of the SPP

motivation mechanism divided into internal motivations and external motivation framework is: 'political motivation', 'economic motivation', 'supply chain and organisational motivation', 'values and resource motivation', 'responsibility and interest motivation', and 'governance and strategy motivation'.

2. Do you think there are obvious defects or problems in the SPP motivation mechanism framework?

3. Does the SPP motivation mechanism framework have practical value and instrumentality for SPP theory and practice?

4. Do you have any doubts about the SPP motivation mechanism framework?

5. What advice do you think about the improvement and improvement of the SPP motivation mechanism framework?

Therefore, the validation process is quite concentrated and the research process will not be repeated again. Instead, it will explore whether the framework generated by this work is useful and can suggest any improvements. Participants were also requested to submit any further comments to gather any other insights relevant to the framework proposed in this exercise.

Validation interviews are transcribed by researchers, which maximises exposure to the dataset and deepens understanding of its meaning.

#### **4.8 Ethical consideration**

Respondents were informed that their names and contact details, as well as the names of their organisations, would be kept confidential. They were also informed that their job position, organisational department and relevant experience of SPP motivation mechanism would be explained in the study to ensure the credibility of the study and the applicability of the respondents.

The anonymity of the interviews in this research was ensured by coding. Each respondent was assigned a numeric code, so that no identifiable details could appear. The research has provided respondents with the opportunity to obtain research results to inform themselves and other SPP managers of their practices; it illustrates the 'higher purpose' of this study and its non-commercial nature. This is important because it helps to establish the impartiality of researchers and the unspeakable interests of the wider academic community and society as a whole.

Other information on ethical consideration has been listed and attached in Appendix 3.

#### **4.9 Conclusion**

The nature and characteristics of the research questions were reviewed with the aim of identifying the most appropriate research philosophy, research methods, research paths and tool design, which are essential for generating new knowledge and achieving research goals. Interpretivism philosophy has been considered to be suitable for this research. In the framework of system thinking,

learning from Neo-Naturalism and Phenomenology as well as the interdisciplinary and multi-theoretical theory are used to support this research.

Determining the qualitative research method is most suitable for the nature and mission of the study. Interpretation case study is feasible and the design of the research plan is determined. The most appropriate data collection tool for this study was identified as a semi-structured in-depth interview with an interview plan and framework.

For data analysis, the coding tool and process have been determined, the data coding was performed by the researcher, and detailed data analysis was organised into software-based analysis – supported by the Nvivo11 tool. The results obtained by the data constitute the test, supplement and improvement of the theory and will be embedded in the conceptual framework based on the SPP motivation mechanism. In order to make sure the framework developed is in line with the actual situation, a plan for validation was set up.

This chapter promotes research goals:

To achieve the research objective 2 – ‘To design and construct an exploratory and comprehensive conceptual framework of SPP motivation and improve the theoretical and practical understanding’ lays the foundation of epistemology and methodology; determines the actual steps; determines the combination of system thinking and case study the framework will be implemented.

Progress has been made by selecting appropriate research methods and for data collection and analysis, and progress has been made in completing research objective 3 – ‘To determine the structure, key components and functions of the SPP motivation conceptual framework’.

Research objective 4 – ‘To explore the value and role of demand orientation in SPP theory and practice’ has progressed by strengthening the operability of survey methods by introducing appropriate methods and tools for complexity and uncertainty issues.

## **Chapter 5 Background of Case Study**

### ***5.1 Introduction***

In Chapters 2 and 3, the literature research and critical interpretation have discussed the research aim that 'to develop an exploratory and comprehensive conceptual framework for the SPP motivation mechanism'. It makes progress in answering the research question.

The nature, and characteristics of this research are discussed in Chapter 4. The conclusion is that the SPP motivation mechanism has been identified as a complex field, and SPP stakeholders provide a large part of the complexity. The complexity and exploratory nature of this research require the use of basic qualitative case-study methods that reveal potential implications and patterns of relationships between structures and stakeholders. Case study design provides a flexible means by which this research can further develop theoretical findings.

As with most qualitative studies, this study selects a single case study approach to extend the depth of research. In addition, the next step in the research will compare the results of the theoretical study with the practical discussion of SPP-related practitioners through semi-open interviews. This chapter presents and analyses the case profiles used to support the research based on the goals, processes, and needs of the study.

The research objectives progressed or achieved by this chapter.

Analyse the background and characteristics of the selected case to determine the representativeness of the case. In order to achieve research objective 2 – ‘To design and construct an exploratory and comprehensive conceptual framework of SPP motivation and improve the theoretical and practical understanding’. A platform was constructed to provide a case study for the research.

Provide a background for research objective 3 – ‘To determine the structure, key components and functions of the SPP motivation conceptual framework’ and provide investigation clues and possible paths.

In order to realise the research objective 4 – ‘To explore the value and role of demand orientation in SPP theory and practice’. This chapter provides relevant historical and current information about the topic, and guide the ways and means to validate the theory in real life situations.

The first part introduces the progress and problems that have been made in this research and sets out the reasons for choosing a case study. In the second part, the single case study has been regarded as a system to introduce the basic situation related to the research topic in the selected case area. It will also provide related background information, including demographic sociological characteristics, primary health resources and medical reform and changes in China. The third part introduces and analyses the industry background of primary health service in the case area, including policy characteristics, management system and reforms, which provides an unambiguous reference background for this research. The fourth part outlines the nature of the primary health

procurement system, and presents issues related to the subject of this research. The fifth part summarises the reasons for the selection of the case and the promotion significance of the study.

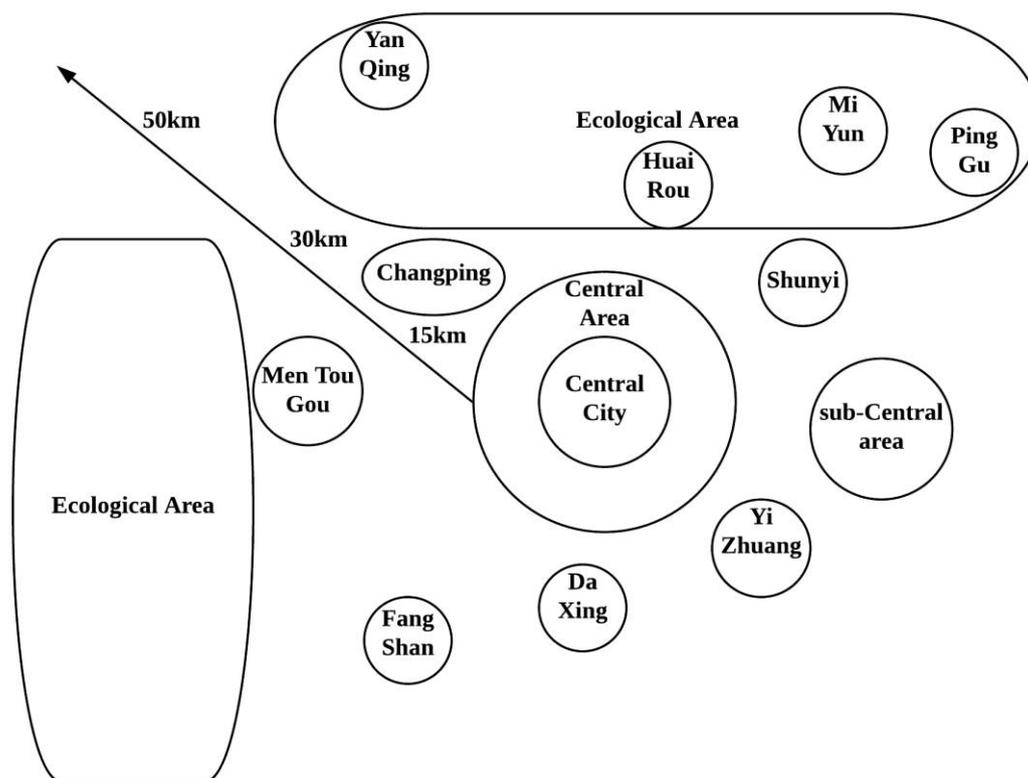
## **5.2 Overview of Beijing**

Beijing is the capital of the People's Republic of China, China's political centre, cultural centre, international exchange centre, and science and technology innovation centre. As a first-tier city in the world, Beijing aims to build a world-class harmonious and liveable city (Beijing-DRC, 2016). The city has certain representativeness and directionality in China and the world. The development has attracted the attention of the world and peers.

### **5.2.1 Administrative location and demographic characteristics**

The total area of Beijing is 16,410.54 square kilometres. There are 16 districts, a total of 147 streets, 38 townships and 144 towns (AboutChina, 2017). In the latest development plan, Beijing is divided into four major functional areas (Figure 5.1). First, the core functional area of the capital, focusing on the characteristics of the ancient capital, giving play to the function of the Chinese capital as a function of the national political and cultural centre. Secondly, the urban function expansion area, covering important areas such as the core area of Zhongguancun Science Park and the Olympic Centre, it is an important area that reflects the functions of Beijing's modern economy and international exchanges. Thirdly, the new

urban development area covers three key new cities, which is the development of manufacturing and modern agriculture in Beijing. The primary carrier is also an important area for the industry and population of Beijing's evacuated urban centre. Fourth, the ecological conservation development zone, which is mostly in mountainous or shallow mountainous region, is Beijing's ecological barrier and water resource protection site, and is a guarantee for Beijing all key area sustainable development. The development of CHSs in Beijing is closely related to the positioning of the capital functional zone. Due to differences in economic level, geographical environment and demographic characteristics, the development of different functional areas varies, which also leads to significant differences in the distribution of health resources and the primary health procurement environment and conditions.

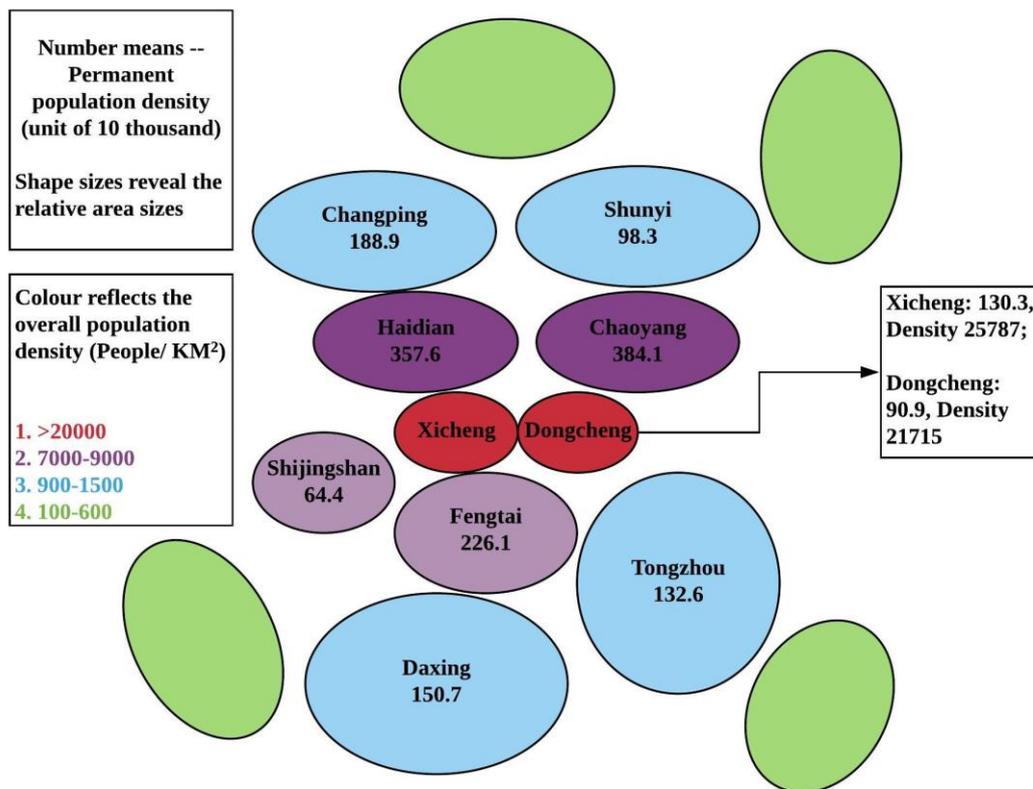


**Figure 5-1 Beijing Districts Locations**

In 2018, the average life expectancy of registered residents in the city was 82.20 years old, an increase of 0.05 years from the previous year. Among them, men were 79.85 years old and women were 84.63 years old, which was higher than the other high-income countries and regions (80.8 years old). At the end of 2017, the number of permanent residents in Beijing was 21.707 million. Among them, permanent floating population was 7.943 million, accounting for 36.6% of the resident population. Among the resident population, the urban population was 18.767 million,

accounting for 86.5% of the resident population. The resident population density was 1,323 people per square kilometre (NationalBureauofStatisticsofChina, 2019). The urban resident population density was up to 25,767 people per square kilometre, while the lowest in the mountainous area was only 158 people per square kilometre (Figure 5.2).

It can be seen that Beijing has a dense population and a large proportion of the floating population. The development situation in Beijing has similar characteristics of developing countries. It shows the differences in economic condition, geographic condition and popularity condition, which could lead to a larger difference in health resources and primary health service capability.



**Figure 5-2 Popularity distribution**

### 5.2.2 Beijing health resources

In 2017, the total cost of health in Beijing was 219.38 billion Yuan, 14.481 billion Yuan increase over the previous year. Based on comparable prices, it increased by 4.73% over the previous year. Among the sources of total health expenditure in 2017, government health expenditure was 50.742 billion Yuan, accounting for 23.13% of total expenses; social health expenditure was 132.747 billion Yuan, accounting for 60.51% of total expenses; and personal cash health expenditure was 35.791 billion Yuan. The total cost ratio is 16.36% (National Bureau of Statistics of China, 2019).

In 2018, there were 11,100 medical and health institutions in the city, including 10,958 medical institutions (including 115 tertiary medical institutions, 174 secondary medical institutions, and 654 primary health institutions) and 142 other health institutions. There were 2,079 CHS centres (stations) in the city, and 33,391 CHS centres (including 28,004 health technicians). In 2018, there were 2,613 village clinics and 2,977 rural doctors and health workers.

In Beijing, primary health care services are mainly urban and rural CHS institutions, and their fundamental functions include prevention, medical care, health care, rehabilitation, health education, and family planning technical services 'six in one' (Guoqing.China, 2011). Beijing's CHS began in the 1980s and is always at the forefront of other regions in China. At present, there are 27 national-model CHS centres and 43 city-model CHS centres.

In 2017, among Beijing's total health expenditure organisations, there are 9.01% of primary health care institutions and 3.38% of public health institutions. The cost of logistics to primary health care institutions also increased rapidly, up 22.17% from the previous year, and maintained for four consecutive years. The steady rise in status reached 9.01% in 2017, indicating that in recent years the government has strengthened the construction of primary health care institutions and promoted the effectiveness of graded diagnosis and treatment (AboutChina, 2017).

In 2017, the total expenditure of the city's CHS centres (stations) was 21.59 billion Yuan. Compared with the previous year, the total expenditure increased by 4.51 billion Yuan, an increase of 26.4%; the financial subsidy was 6.41 billion Yuan, and the financial subsidy

increased by 1.17 billion Yuan, an increase of 22.5%. The city's CHS centre (station) has a total of 545.82 million person-times (22.9% of the city's medical institutions).

Based on the above information, it could be summarised that Beijing has abundant health service resources, the rapid development speed in primary health service, and a big procurement market of primary health service. The development experience and problems in Beijing could be useful resources of this research.

### **5.2.3 Reform of Beijing's primary health procurement**

Prior to the 1980s, primary health care institutions were characterised by a planned economy. Medical care was mainly based on public expenditure. The government centrally grasped and mobilised the civil power and health resources it had. All of them relied on government administrative orders, medicine production, channels, prices, etc. All are controlled and transferred by the government, and there is no practical procurement activity.

After the 1980s, the government relaxed intervention and control in the field of health care, tried to use economic means to manage health, and brought the pharmaceutical industry to market. The primary health institutions purchase independently, and the primary health and health service system changes from public welfare to profitability. Among the total health expenditures, the government's budgetary health expenditures continued to decrease. In the same period, the hospital's compensation mechanism was imperfect, and

there were problems such as drug-based medical care, lax management of drugs, rising medical costs and irrational use of drugs (Shan & Yang, 2010). The market competition is disorderly, the order of purchase and sale of medicines is chaotic, the procurement cost is rising, and the health and fairness and accessibility between urban and rural areas and between different people in cities are getting worse. It shows the profound influence of the political and economic environment and the ideas and opinions of policy makers in a certain period on SPP. It can help to understand the mechanism and interaction of SPP external and internal motivations, and is especially inspiring for the exploration of SPP motivation mechanism.

WHO advocated that it is the aim to develop a world that all people in all places have access to health care as they need (WHO, 1978, 2008, 2018). Beijing is a positive responder to these concepts and policies. Beijing emphasises the concept of innovation, coordination, green, openness, and sharing, actively promotes the reform of medical, medical insurance, and medical care linkages, and accelerates the improvement of primary health and health systems. The core of various measures is to increase government investment in primary health services, strengthen government responsibility, return primary health services to public welfare, let SPP play the role in this field, and realise the fairness and efficiency of primary health services.

Since 2017, the government has decided to name primary health service as a public product and it has created a new platform for implementing SPP. Based on the new policy guidance, primary

health service has been officially purchased. The CHS organisations have 'Two-channel Management of the Revenue and Expenditure', and all the services are not for profit. There is also a promotion of 'Family Doctor' system and 'Transfer Treatment' system through the purchasing methods on primary health services. Meanwhile, all the public health organisations have removed the extra fee for pharmacy and applied 'zero-difference' in pricing. All the medicines for CHS have been procured and delivered by the official pharmacy procurement platform – 'Sunshine Procurement'.

Above all, Beijing is a perfect location for case study.

Firstly, Beijing has a large population and a most densely populated city. It has relatively sufficient health resources. The primary health institutions are characterised by a large number of different levels and clear types. Both in terms of users and providers, there is a considerable scale for choosing health service. Moreover, Beijing's economic and social development presents differences in the region, each districts have their own characteristics. In-depth research on primary health services and procurement will have implications for many types of regions or countries. Beijing's primary health services are at the forefront of China, and many SPP experiences are worth summarising. They will serve as a model for the country and other countries and regions.

Secondly, although Beijing's medical resources have increased steadily every year, the number of patients and health demand has grown more rapidly. The growth rate of health care demand is higher than the growth rate of medical resources. The government's health expenditure is also on the rise. The proportion of total

expenses to GDP is still different from that of developed countries. At the same time, the distribution of medical resources in the region is uneven (Deng, 2010). The cost and effect of primary health procurement vary significantly from region to region, urban and rural unevenness and urban unevenness between locations, unevenness of large hospitals and small hospitals, and uneven strength of public institutions and private institutions. SHP faces an uncompromising environment, and it is facing many difficulties and challenges for everyone to enjoy primary health care through SHP.

Thirdly, due to the ageing population in the region, the population aged 65 and over in 2017 has reached 2.376 million, accounting for 10.9%. The prevalence of the elderly has increased, the number of chronically ill patients has increased, and changes in regional living standards and lifestyles have led to significant changes in the disease spectrum. On the one hand, the growing health demand of the ageing society turned out to be noticeable. On the other hand, the government's limited financial resources and the pressure to improve the public service level of the people made government-based decisions challenging to balance all the concerns. The slowdown in economic growth has brought about the contradiction between increased demand and insufficient investment. The pressure on capital and the limitation of capacity urgently need innovation and development, and continuously seek new solutions. The floating population in the region always accounts for a large proportion. Not only is the risk of infectious diseases high, but it is also the most likely to cause the spread of the epidemic or the outbreak of infectious diseases.

Fourth, Beijing's ongoing health care reform is showing the effects of sustainable development. The principle of reform is to strengthen the government's responsibility in the primary health and health system, emphasising government leadership. However, there are still several problems remained for research and resolution. For example, procurement agencies have not become independent responsible entities. Procurement catalogues, procurement funds, procurement bidding, procurement content, and price formation are all directly intervened by the government. This system has caused great controversy, and practical obstacles have been found in practice. In the SPP process, whether the ultimate goal of achieving sustainable goals is different for different stakeholders. Another example, centralised procurement of medicines emphasises on 'quantity', the acquisition is completed only in batch mode. It is a double-edged sword, on the one hand, the cost-control maybe successful for medical institutions and medical insurance departments. On the other hand, some patients may be left out as medicines they need were not on the batch catalogue. The family doctor contract service may be satisfactory for some elderly people, but it is a burden for primary health care providers as they are not enthusiastic about it. What the government should buy, how to buy, and how to balance the interests of stakeholders when making decisions is also an important part of the research on the SPP motivation mechanism.

How to promote the integration and deployment of regional health resources through SHP, and play the functional role of primary health care to improve the utilisation efficiency of health resources. This is also a common issue that many countries or regions with

large populations may experience. The case study of SPP in the primary health service field with Beijing as a case may provide a forward-looking and inspiring reference because it is a global problem.

### ***5.3 Beijing primary health procurement policy and management system***

#### **5.3.1 Basic policy**

The China Sustainable Development Evaluation Report (2018) is evaluated by five major classification indicators: economic development, social and people's livelihood, resource and environment, consumption and environmental governance. Beijing's sustainable development indicators rank first and economic and social rankings are among the best ones (Beijing morning post, 2018). The urban master plan puts ecological environmental protection at the top of the list (People.cn, 2017). The government strives to maintain high-speed growth in the economy while safeguarding and improving people's livelihood, improving people's livelihood and well-being, improving the public service system, and further improving the level of basic public services. Therefore, the concept of sustainable development places special emphasis on providing right conditions for sustainable public procurement.

In Beijing, the implementation of sustainable primary health procurement consists of mandatory and voluntary components. On the one hand, buyers and stakeholders must implement relevant government regulations and standards in their procurement projects

(mandatory SPP). On the other hand, the government also guides all parties to achieve higher goals and do more voluntary SPP.

For example, in the case of mandatory SPP, the procurement of pharmaceutical products must comply with environmental protection regulations. In 2008, the State Environmental Protection Administration promulgated and implemented the 'Water Discharge Standard for Pharmaceutical Industry' on 1<sup>st</sup> July, 2010 in the whole industry. As an industry with relatively large pollution, the pharmaceutical industry is facing an increasingly strict environmental protection and high-pressure situation. To protect Beijing's environment and soil, the manufacture of chemical raw materials at the end of 2017 has all moved out of Beijing (China Securities Journal, 2017). Enterprises that could not upgrade and discharge the standards were closed. They will be closed before the end of September 2017. For example, medical products that enter government procurement under the Drug Administration Law of the People's Republic of China must have GMP certification and GSP certification (6<sup>th</sup>NPC, 2019). The products listed in the environmental protection list are the government's priority to purchase products. Products not included in the current environmental protection list are not part of the government's priority procurement environmental labelling products.

Voluntary SPP, the pharmaceutical industry has begun to implement voluntary low-carbon certification, including corporate carbon inventory, product carbon footprint certification, carbon neutral certification and nationally promoted low-carbon product certification. Centralised procurement agencies at all levels actively

implement public procurement policies, improved the evaluation of the bid evaluation policy, set additional grading measures, provided incentives for evaluation, encourage joint bidding, credit guarantees, etc. (Wang, 2014). In the process, agencies actively implemented energy conservation and environmental protection, provided support for small and medium enterprises, etc. In terms of logistics, agencies vigorously promote using environmental-friendly tapes and packaging bags, eliminating packaging materials with heavy metals and specific substances exceeding the standard, setting up packaging waste recycling and reuse devices, and realizing the full coverage of circulating transfer bags.

The right to health is a fundamental human right (WHO, 2017). Globally, health and healthcare services have become sensitive political and social issues. In the past decade, the government has placed more emphasis on the social sustainability of SPP, and the comprehensive and sustainable policies for primary health procurement have become transparent. It has adhered to the people-oriented principle, safeguard the people's health rights and interests, safeguard the health of the people, achieve 'covering the whole people', and guarantee the goal of 'healing a doctor.' It is important to realise the government's responsibility, emphasise government leadership, emphasise social fairness and justice, and pay more attention to the growing medical and health needs, in order to achieve overall coverage of health service.

The government has made it clear that the establishment of the health system to the service system should follow the principle of public welfare and provide the primary health system as a public

product to the whole people. Primary health procurement adheres to the combination of government leadership and the role of the market mechanism, the unification between public products and marketing attributes directly impact on the fairness and efficiency. It always requires a balance between economic and social concerns when providing primary health service.

### **5.3.2 Primary health procurement management system**

In the primary health procurement management system, Beijing has applied a mixed of government-led and market-led system, and primary health procurement involves four categories of stakeholder groups. First, government departments – health department, development and reform committee, financial department, social security department, business department, food and drug administration, Chinese medicine administration, industrial and commercial administration, price bureau, and government procurement agency. Second, medical institutions – CHS institutions, hospitals at all levels, medical and health institutions management, doctors, pharmacists (pharmacy staff, pharmacists, etc.). Third, corporate organisations – pharmaceutical manufacturing companies, distribution companies (commercial and logistics), drug marketing personnel, distribution personnel. Fourth, community residents (patients) and related social organisation.

Usually, the municipal government formulates the primary health procurement related policies and local laws and regulations in accordance with the policies, regulations and strategies formulated by the state, and then organises them by the competent

departments. Major decision-making and command are generally led by the in charge of the city governments, and the establishment of an organisation composed of relevant departments for leadership and coordination.

This section introduced Beijing's SPP basic policy proposition and basic system. Government-led characteristics can be found. Beijing's health service procurement policy and system have certain Chinese characteristics.

Firstly, major reforms and policies are involved in this field in Beijing. As a political proposition and a political goal, the party and the government jointly issue documents, which generates higher political pressure on local officials. Although the local government also actively promotes legalising, due to the short time of SPP development, more policies and related administrative measures are adopted.

Secondly, due to historical reasons, SPP in health service decision-making and implementation are designed to be multi-agent and multi-stakeholder. In the same subject, it will also be composed of multiple departments and organisations. For example, subject of purchase will actually involve the health department, the development and reform committee, the financial department, the social security department, the commerce department, the Food and Drug Administration, and The Medical Administration, the Industrial and Commercial Administration, the Price Bureau, and the government procurement agencies. It is quite complicated in coordinating stakeholders.

Thirdly, in most cases, the introduction of SPP-related policies and reforms is carried out from top to bottom, taking administrative measures. There are usually many levels of top-level design and final implementation. In addition to government decisions, stakeholders are basically passively involved and executed.

One independent case already concentrates different aspects of SPP motivation could happen in many countries and regions. Balancing the interests of stakeholders, understanding and meeting the needs of the public, solving the problem of management fragmentation, mobilising the enthusiasm of all SPP participants, monitoring government behaviour are good examples. Such a case anatomy might reveal the connection between the problems and find a way to solve the problem from a system perspective.

#### ***5.4 Primary health procurement***

'The six-in-one' CHS that focuses on human health, family-based, and street-based, and integrates health education, prevention, health care, rehabilitation, family planning, and primary health care contributes on the CHS system in Beijing. Primary health services are based on two fundamental elements – public health services and primary health services. Public health is a collective action aimed at sustained health improvement in the entire population. It organises the society to work together to improve environmental sanitation, prevent and control epidemics of infectious diseases and other diseases, cultivate good health habits and civilised lifestyles,

provide medical services, prevent diseases and promote the health of the people.

'Primary health services' focus on health services that are fair to health and hygiene (WHO, 2008). In Beijing, because of its social welfare, it is a quasi-public product. Promoting primary health services means a public policy that effectively allocates government resources to benefit vulnerable groups in society. The new health care system under construction in Beijing includes four major systems: public health, medical services, medical security and drug security supply. Therefore, the primary health procurement direction is oriented to public health service projects, primary health service packages, primary health drugs and primary health insurance.

#### **5.4.1. Primary pharmacy procurement**

Beijing has earlier implemented non-profit procurement of medicines and medical consumables for community health service institutions. Commonly-used medicines have been distributed with zero-addition of the whole chain of medicines circulation. The government intervened to improve the current health system aiming for offering safe, effective, convenient and inexpensive medical and health services for the people.

The centralised procurement of drugs is subject to direct bidding by pharmaceutical manufactures. Enterprises get qualified for both enterprises and medicines certificates on the centralised drug procurement platform. After approved by the relevant departments,

materials shall be submitted to the centralised procurement work organisation as the basis for implementing centralised procurement. The platform will make the whole process public from the review of enterprise product information and price information to the later stage of drug selection, purchase varieties and purchase prices in medical institutions to ensure zero addition to the whole chain of drug circulation.

The medical institution establishes a drug and therapeutic committee (group) in accordance with the regulations of the health administrative department. In the scope of the catalogue of the procurement of short-listed medicines in the Sunshine Procurement Platform of the city, the list of medicines used in this hospital shall be organised and, in principle, the medicines outside the list of medicines that are not included in the medicines shall not be purchased.

The double-envelope bidding system was adopted, that is, the economic and technical bidding documents and the commercial bidding documents were prepared separately when the bidding documents were prepared, and the enterprise cast two bids at the same time. The economic and technical tenders mainly review the production scale, distribution capacity, sales, industry ranking, market reputation, qualification certification, drug quality inspection and sampling history, electronic supervision capability and other indicators to ensure the quality of basic drugs. Only those enterprises that have passed the economic and technical bid evaluation can enter the commercial bidding review, and the commercial bidding review is the lowest bidder. In the process of

bidding for essential drugs, the implementation of technical standards is mainly based on the quality of quality and quality of the bidding drugs, including a variety of sustainable indicators, as well as production scale, sales, industry rankings, market reputation, bad records and other relevant indicators. The bidder who enters the business bid evaluation will produce the winning bid result for the commercial bidding of the bidding drug within the specified time. Within the citywide, 3 to 5 distributors will be selected through public bidding. Drugs and medical consumables used by the government's centralised procurement of CHS centres (stations) will be uniformly distributed. The drug production and operation enterprises responsible for distribution should have a centralised procurement platform for drugs. The conditions for sale, ordering, stocking, and distribution are conforming with regulations and requirements, to ensure the medication needs of the online medical institutions.

Various public medical institutions implement a 'two-invoice system' in drug procurement. when medicines were circulating from pharmaceutical production enterprise to the distributor, a special VAT invoice or a VAT ordinary invoice (hereinafter referred to as the invoice) is issued. The distributor issues another invoice to the medical institution. In order to ensure the effective supply of primary-level drugs to institutions in remote areas, distributors are allowed to issue sales invoice on the basis of 'two-invoice system'.

The primary health drug reference list of CHS institutions implements the national essential medicine system. The basic drug varieties are preferred, and the number of purchased products

should account for more than 60% of the total amount of purchased drugs. The primary health insurance for the Beijing CHS, the insured person can be reimbursed 90%, and the individual burden is 10%. The latest edition was published by the Beijing Municipal Human Resources and Social Security Bureau, 'Beijing Primary health Insurance Work Injury Insurance and Maternity Insurance Drugs Catalogue' (2017 edition), and the number of medical insurance drugs increased from 2,510 in 2013 to 2,986 species.

Above all, the current basic drug procurement system has been continuously reformed over the years. It can be seen that the emphasis on public welfare is a renewed understanding of government responsibility and 'guarantee basics'. Through strict bidding and screening, the corresponding indicators of SPP are integrated to ensure basic qualifications and standards. How are these measures generated? Do these measures really promote sustainability? Are these measures fully implemented to encourage the SPP? It is worth exploring, because the answers to these questions allow us to confirm the existence and mode of action of certain SPP motivation mechanisms. It is also the consideration of choosing it as a case.

#### **5.4.2. Primary health insurance purchase**

In the 1950s, in the cities of Beijing, public funds and labour insurance formed under the planned economic system once covered about half of the urban residents and played an active role.

However, with the development of social economy and the increase in people's demand for health, this free medical system with strong

welfare is difficult to sustain. First, the coverage is narrow and there is a lack of mutual assistance. Second, medical expenses have been inflated, and the state and enterprises have been overwhelmed. Third, business and personal medical expenses are uneven. Labour insurance is actually the self-protection of the company and is closely related to the business situation of the company itself. Fourth, management is not standardised.

At the beginning of this century, the Beijing Municipal Government established a primary health insurance system for urban workers in accordance with national policy requirements. This system requires the establishment of 'two designated and three catalogues'. The 'two designated' refers to the designated hospital and the designated pharmacy. The most important one in the three catalogues is the primary health insurance drug reimbursement catalogue, which covers primary health insurance, work-related injury insurance and maternity insurance with medication list. That is, if the medicines used by the insured in the medical treatment process are within the scope of the catalogue, they can be reimbursed according to regulations. If they are not within the scope of the catalogue, they need to pay at their own expense. Medical expenses above the threshold and above the maximum payment limit are mainly paid from the pooled fund, and individuals are also required to pay a certain percentage. Medical expenses exceeding the maximum payment limit can be resolved through commercial medical insurance. Participation in the establishment of the national medical security system provides the fundamental institutional basis.

This system of government 'buying insurance' has gradually developed to this day. It has insisted to the principle of broad coverage, fundamental protection, and sustainability. The 'six-in-one' unification includes overall coverage, fund raising policy, security benefits, medical insurance catalogue, fixed-point management and fund management. Also, medical insurance for urban and rural residents has been integrated, and the social insurance system has been fully covered. By the end of 2017, the total number of social insurance cards issued within the jurisdiction of Beijing has increased to 21.112 million. There are 2,068 designated medical institutions in the city. Among the designated medical institutions, there are 1,370 community health service institutions (including centres and stations), accounting for 66.2% of the total number of designated medical institutions.

On the one hand, the government directly organises primary health institutions to ensure that patients receive appropriate primary health services. On the other hand, it purchases appropriate high-quality primary health services for patients. Government finance gradually increases investment in medical insurance, allowing patients to choose appropriate medical institutions and medical services. Medical institutions can only obtain medical insurance compensation if they have patients, and it is beneficial to encourage medical institutions to provide quality medical services.

In order to ensure sustainable development, the following management measures are taken: (1) The supplier of medical services is bound to designated hospitals and designated pharmacies, and the access qualifications of health services and

drug providers are strictly controlled. (2) Defined scope of payment for medical funds, including a defined list of medical treatment items, types of drugs and dosage forms, standards for medical service facilities, medical expenditure reimbursement rate; the settlement of medical insurance funds is in a mixed form. Different settlement methods are determined for outpatients, hospitalisations and special diseases, and the total prepayments for each designated medical institution is limited. The social insurance institution conducts random inspections of outpatient and drug prescriptions on a regular basis. (3) Through public opinion and social supervision, after verification by the social insurance agency, the medical institutions in violation of the regulations will be held accountable and investigated. The quality of medical services will be improved through the competition mechanism of designated medical institutions. (4) In order to cope with the ageing of the local population and high medical expenses, the basic medical insurance adopts a mixed financing mode. Combine short-term horizontal balance with long-term vertical balance.

In addition to the basic medical insurance system, a supplementary medical insurance system is being established, including commercial health insurance and other forms of supplementary medical insurance. Mainly to meet the needs of higher-level medical services besides basic medical insurance. The government encourages enterprises and individuals to take part in commercial insurance and various forms of supplementary insurance to meet the needs beyond basic medical insurance.

In Beijing, the government purchases insurance based on the spirit of humanism and the sustainable thinking of safeguarding citizens' health rights. Achievements have been made and some of the existing practices are worth exploring its sustainability. For example, the original urban and rural residents' medical insurance system is segmented and the problem of fragmentation has not been completely solved. For example, there is no good emphasis on the differentiated needs of special group health protection. For instance, 'difficult to see a doctor, expensive to see a doctor'. Taken together it is a question of demand understanding and demand satisfaction, and it is also a 'demand-oriented' question put forward in the research.

#### **5.4.3. Purchase of primary health services**

The differences in political, economic, social, and cultural differences between countries are different in the interpretation of primary health services. However, the consensus is that individuals and families in the community adopt basic and hygienic services that they can accept and participate fully. Their connotations are summarised as: national, social, and personal, in line with the level of economic and social development. Health care services that can afford affordable, good results, and meet the primary health needs of members of society.

At present, the government mainly purchases primary health services in the following ways:

The first is the contract system. Under the contract system, the government makes a budget; buyers and sellers sign a service contract with specification on respective responsibilities; service providers leverage their own technical and human resources advantages to provide public services; buyers make payments according to the service received. In this way, the government is dominant, but the buyer and the purchaser cooperate according to the contract, and the relationship is relatively equal.

The second is direct funding. It means that the government allocates funds to institutions, private institutions and social organisations that undertake CHSs through direct appropriations, material subsidies, and policy concessions. They provide primary health services according to their functions, professions and personnel characteristics.

The third is the project application system. Refers to the CHS institutions to take the initiative to submit project applications to the relevant government departments according to the needs of the people. After the assessment and approval, the government will provide financial support in the form of project approval, and regulate the operation process of the project through bidding, process supervision and performance appraisal. This practice is dominated by the acquirer, who finds problems in their work and solves the problem in a targeted manner, which helps the expression of public opinion and the service is demand-oriented.

The fourth is the service voucher system. The voucher system is an agreement between the government and a qualified institution. The government issues a public service consumption voucher to the

consumer, and the consumer chooses to purchase the corresponding public service from different institutions. This approach is actually the government's indirect purchase of public services through consumers. The voucher system strengthens the consumer's role as a consumer, further expanding the sources of public service, such as health check-ups and family doctor services.

The purchase of primary health services is more complex, involving municipal governments, municipal health insurance departments, medical institutions, and patients. The government is the main body of a primary health service purchase. It acts as the entrusting party to transfer its power to the medical insurance department, and the medical insurance department implements the purchase of the medical service of the medical institution. As an agent, the medical insurance department signs a corresponding purchase contract with the medical institution. It introduces a competition mechanism and a testing evaluation mechanism in the purchase. Through medical insurance fee payment, the medical institution is urged to improve the quality of medical services and reduce the medical expenses of the government and patients. Through the purchase of medical services, the supply of medical services is separated from the provision of medical services, but they can balance each other.

In recent years, the Beijing government has actively promoted the family doctor-style service system, which has achieved full coverage. It covers and covers all aspects of the CHS system and is integrated into primary health and public health services. By purchasing a 'service package', the government promotes the implementation of 'family doctor signing' and 'primary health

service package' to ensure the development of citizens' health. Community medical institutions develop different primary health service packages for different contracted groups. According to the nature of the services provided, the family service packages offered by Beijing Municipality are mainly divided into two types: basic contract service packages and personalised contract service packages. The basic contract service package is referring to the basic requirement for family doctor contract service, including general appointment diagnosis, appointment referral, long-term prescription service, medication guidance, round-trip service and basic public health and health management services.

The personalised contract service package is a customised package service provided by the different needs of healthy people, high-risk groups, patients and patients during the recovery period. The government encourages districts to explore personalised and non-basic family doctors to sign 'service packages', on-site service items and prices. Each district will combine the amount of human resources to ensure medical safety for difficult groups such as senior citizens, seriously ill, disabled, and partially disabled. Under the conditions, appropriate on-site services to solve the problem of medical treatment for patients with mobility problems. Through the high-quality personalised service, the people can enjoy more convenient medical services.

#### **5.4.4. Public health service purchase**

Beijing adopts a fund-raising model of a joint investment by the city and district (county). The policy is tilted towards mountainous areas

and rural areas. The municipal finance mainly bears the purchase of major public health projects. The district and county finances are better than the national basic standards according to their respective buying capabilities. There are four main sources of purchase funds: First, the subsidies from municipal and district finance of Beijing; second, the medical insurance fund of the city; thirdly, basic public health service fund and the fourth is the personal payment for the signatory residents. The number of individual residents in the service package is determined by the factors such as the content of the contract service, the structure of the contracted residents, and the primary health insurance fund and the affordability of public health funds.

In Beijing, the public health service project is a free service to all permanent residents, and the government adopts the method of project purchase based on the payment of the head. On April 7, 2009, the State Council issued the 'Key Implementation Plan for Medical and Health Reform (2009-2011)', which determined that the national basic public health service project in 21 categories and 9 items. In 2018, the local government purchased services in accordance with the annual per capita 50 yuan basic public health service funding standard, with a total of 14 service items (See Appendix 4). Purchase of services will further focus on the goal of sustainable development, adjust and optimise primary public health and major public health service projects, increase performance appraisal efforts, improve the implementation effect of public health services, and enhance people's sense of access.

Although the government's purchase of primary health services has made some progresses, there are also some obstacles to sustainable development which have been hindering the growth of SPP:

First, primary health service procurement, necessarily, is a choice of social value. Only the accurate positioning of the concept will have a benign operation of the system. The correct choice of basic concepts and orientations directly affects the choice of primary health procurement content, procurement methods, and procurement objectives. For example, community health institutions are mainly responsible for public health services and primary health services. There is always a different understanding of the relationship and balance between the two; another example, in the face of excessive personal medical burden, the government increases investment but focuses on reducing personal health expenditures. It does not necessarily allocate sufficient funds for procurement and improvement of the community medical environment and conditions, and may result in insufficient allocation of medical resources.

Second, some public service items and basic medical services have been launched, but the public is not in urgent need and even not interested, so that it has not received a positive response. Moreover, due to some projects cost a lot of time and manpower, the effect is not obvious. Some service purchases are not sustainable due to the lack of financial guarantees or changes in administrative decisions. There are common reasons behind the occurrence of these situations, such as lack of sufficient demand

research, lack of basis for purchase and arbitrariness. Questions like do you want to consider the demand? How to find out the demand? Is the public only the passive recipients of services? These problems do not belong to one region, but are SPP that covers all primary health services and even all fields, which is especially worth discussing. Approaching the people in the case and deeply listening to their voices and feelings may be the shortcut to get the answer.

Third, in Beijing, the community health service institutions organised by the government are public welfare institutions, and the establishment of community health service institutions approved by their public welfare nature is financial subsidy. The implementation of the two-line management of revenue and expenditure makes the salaries and treatment of community health service centre staff be guaranteed by finance, but it also cuts off the connection between the personal income and business income of community health service employees. With the increasing workload, the labour paid by doctors in service centres is not in direct proportion to the increase in actual income. It is worth studying how purchasing services can arouse the enthusiasm of medical staff and how they are accepted by the public. SPP is not driven by government regulations, but needs to be driven by the internal motivation of participants. Therefore, how to activate forces other than the government is worth discussing.

Fourth, the purchase operation is not standardised, and the management is fragmented. There is no uniform and standardised process for district governments to purchase health care services. The medical institutions in all districts of the city have distinct

differences in the specific operations of purchasing medical and health services, which is not conducive to the rapid development of primary health care institutions. Some public health service projects, such as health, civil affairs, the Disabled Persons' Federation, the Women's Federation, the Committee on Ageing, etc., all purchase, and all departments have invested. Such long-term management cannot maximise the benefits of financial investment. The laws explicit targeting urban CHSs are almost blank, and the differences in CHS policies and laws in response to management and normal management often lead to some coordination difficulties and even conflicts.

Fifth, the service providing the subject is not mature. At present, Beijing community health institutions have limited human resources, insufficient general practitioners, and reliable professional medical services and high technical requirements. It is challenging to meet the health needs of community residents. Therefore, the government actually bought the process and did not obtain the result. So who is the real subject? For whom is this service necessary, or for what kind of service is required to buy?

The above problems are keen to be solved, and those who can be discovered have a certain complexity. This complexity stems from the participation of stakeholders and their different interests. In the end, the SPP hopes to achieve sustainable demand satisfaction. In the current institutional arrangements, it is difficult to understand how the demand is discovered, how the demand is expressed, and how the demand is mastered by the decision-making process. At the same time, we find that government governance has a close

relationship with SPP, not only the establishment and change of governance concepts, but also the choice of governance models and methods. Therefore, an in-depth study of this case may not only be a question of procurement but a system-based problem. When we go deeper into these internal discoveries and conclusions, we can truly discover the reasons and laws behind it. These reasons and laws not only help to deepen the subject, but also more importantly, can be extended to more countries and regions for reference.

### ***5.5 Summary***

A series of descriptions of natural, social, and human psychological phenomena by empirical science has become a necessary prerequisite for philosophy to consider reality, language, and knowledge. This research uses a qualitative research method, selects a case, and conducts a comprehensive introduction and analysis in this chapter. The purpose is to build a bridge between case study and theoretical development for research.

The basic idea is to enter the research problem field with specific research questions and theoretical presuppositions to solve problems and verify the theory, with the aid of essentially intuitive observations, in-depth interviews, supplemented by quantitative tools to solve problems and verify the theory, and to make in-depth explanations and analysis at the empirical level. To promote the combination of theoretical research basis and case study, make this qualitative research process a cyclical process of forming a

theoretical framework, continuously revising and improving the theoretical framework, and gradually verifying the theoretical framework during the research process, and finally make the results bear a heuristic prototype. The case study selection process has fully considered its representativeness.

First, China has the largest population in the world, and Beijing is a microcosm of China. Governments in this region have a strong desire to promote SPP and sustainable development. Economic and social development is on the rise, and SPP is playing an increasingly important role in people's livelihood and social development. This background is similar to that of many developing countries and regions. This region has a dense population, a large floating population, and an increasingly prominent ageing problem. The field of primary health care is facing the challenge of limited resources and increasing demand. How to promote the integration of regional health resources and improve the efficiency of health resources utilisation is the common problem of most countries and regions in the world. The results of SPP research in primary health care and other fields will directly benefit the one-fifth of the world's population and have implications for more emerging countries and regions.

Second, China's primary health procurement is worth summarizing and studying. China's reform of the world's largest medical and health system will contribute valuable solutions to global health governance (Bai, 2012a, 2012b). The changes that have taken place here are closely related to the theme of this study and are particularly worth studying.

Third, the region has complete primary health facilities and a large number of institutions, which can obtain more data and information in a relatively short time and improve the efficiency of research. Beijing is a model of reform and innovation in primary health services and procurement in China, which is particularly worthy of further study and may provide new and advanced materials for research in this field. It has a value not only for China, but also for many countries and regions in the world. It also has a demonstration effect on SPP motivation mechanism research in the medical field and related fields.

By introducing and analysing the background and characteristics of selected cases, this paper provides an empirical research idea and a case suitable for the research objective 2 – ‘To design and construct an exploratory and comprehensive conceptual framework of SPP motivation and improve the theoretical and practical understanding’.

This paper provides a background information, and builds a bridge between the theoretical realm and the real realm for the research objective 3 – ‘To determine the structure, key components and functions of the SPP motivation conceptual framework’, to facilitate the research work to deepen synchronically in the two fields and make further progress.

By providing historical and current information related to the topic, the paper guides the research path, the investigation focus and sample selection clues for the research objective 4 – ‘To explore the value and role of demand orientation in SPP theory and practice’.

## **Chapter 6 Findings and discussions**

### **6.1 Introduction**

Public health has become one of the largest areas of spending in public procurement and it has become a long-standing research area (Walker, 2015). Research in this area remains immature, especially in developing countries.

Earlier in Chapters 2 and 3, the research has explored and summarised the literature on sustainable public procurement and primary health service procurement and has developed a conceptual framework based on existing research findings (See Figure 3.1 and 3.2). The elements in the framework are derived from a wide range of literature collections and summaries. The framework provides a theoretical basis and an in-depth exploration of the SPP motivation mechanism.

Because SPP has the participation of multiple subjects and stakeholders, the motivation mechanism presents a complex situation, and the personnel factor is the core of this complexity. Moreover, the previous theoretical research in this field is lacking, and there are few discussions about the motivation mechanism within primary health SPP. Therefore, an exploratory research with the people-involved design is vital to reveal and discuss the complexities.

As previously analysis in Chapter 4 (section 4.4 and 4.5), this research combines system thinking with interpretive methodology guidance that implements in-depth semi-structured interviews to apply qualitative research analysis (Rohlfing, 2012). Chapter 5

provides the reason and background learning of case study in Beijing, China. This chapter focuses on detailed research design and data analysis results. The findings will compare and validate the original design of conceptual framework. It will build a bridge between the findings of case study and literature review. In addition, improvement suggestions are used to validate and update the design of conceptual framework to advance the purpose of the study

In this chapter, the opinions of SPP practitioners may help verify the fulfilment of research objective 1 – ‘To discover the possible gaps and core factors in SPP motivation research, and determine the problems that need to be considered in research.’ It could also identify potential area that need further strengthening.

Through detailed case study plans and using the data obtained, the research objective 2 – ‘To design and construct an exploratory and comprehensive conceptual framework of SPP motivation and improve the theoretical and practical understanding.’ It has been placed into real life scenarios, which theoretical research results are compared. Through the framework assessment, further confirmation and improvement based on the interviewee's recommendations can support the final design of the conceptual framework.

Using detailed data coding and data analysis processes, research objective 3 – ‘To determine the structure, key components and functions of the SPP motivation conceptual framework’, could be enriched and validated.

Using the results of data analysis, the research objective 4 – ‘To explore the value and role of demand orientation in SPP theory and practice’, is demonstrated in terms of definition, connotation and function. It contributes to providing further evidence to prove its essential role in SPP theory and practice. It is advisable to go through the investigation.

This chapter presents case study results, including a text-based description of the participant's experience, an explanation and evaluation of the results, and a preliminary assessment of the results.

Structure of the chapter is as follow. The first part introduces the background of conducting empirical research and the research objectives of this chapter. The second part, based on the identified key themes, the interview responses will be separately analysed. The findings will be used to validate the drivers and motivation system in conceptual framework. In the third part, with the help of data processing and analysis, the motivation mechanism of SPP is deeply discussed, and the framework and main components are further compared with previous literature research findings. The fourth part outlines the process and data results of framework validation, providing further insights and improving evidence. The final part is the summary of the qualitative research and an overview of the results of this chapter.

## **6.2**

### **6.2 Findings**

This section will discuss the findings of the data analysis. Through thematic analysis, it will provide further evidence and supplement for the conceptual framework. In the next section 6.3, it will discuss and draw some conclusions.

#### **6.2.1. Political drivers**

The first theme is political motivation factors. Traditionally, it means national political power which relies on legislation, regulations, and law system. It pushes the implementation of SPP and plays as a compulsory motivation factor.

By organising the interview data of 34 interviewees, the majority of respondents considered political factors as one of the most important motivation. It is also an important finding in the conceptual framework and one of the most supportive themes (see Table 6-1). Data analysis shows that respondents are highly concerned about political drivers.

**Table 6-1 Theme 1 – Political motivation**

Major Themes	Composite Themes	Composite Codes	Coding Examples	Counts
1. Political factors	1. Law	Laws, regulations, legislation, law enforcement, certification, agreements, contracts, conventions, international law, binding, compulsory, prohibition;	MG7: The law is the most powerful, one is mandatory and the other is fairness; EP2: Legislation promotion in ecological protection is very effective; MG5: Primary health procurement requires regulatory support, and existing regulations are not suitable. Some things cannot be relied upon and are not easy to handle;	34
	2. Policy	Notices, documents, resolutions, announcements, requirements, plans, opinions, advocacy, guidance, policy functions;	MG2: Primary health procurement is mainly driven by policies, especially when the regulations are not perfect; CH1-8: Policy directly stipulates and constrains purchasing options, such as supplier and drug selection; C1: Our company mainly studies policies, otherwise we cannot enter this market.	34
	3. Political claims	Politic, ruling party, idea, routine, position, spirit, ideology, attitude, strategy;	NG2: Environmental protection and health strategies are already basic national policies and national strategies that must be implemented; MG4: Keep non-profit on primary health service and refuse profit-based service mode, increase the government input, these are leading requirements for relative procurement; EP3: Solving the problem of 'difficulty in seeing a doctor, expensive medical treatment' and issues of health justice are related to social stability and the position of the ruling party. Therefore, political forces are very effective.	32

4. Regulations and standards	System, structure, institutional, regulations, norms, arrangements, practices, examples, rules, supervision, certification, authorisation, standards, allowance;	CH8: Community medical procurement has relevant institutional norms, such as centralised drug procurement, service project declaration and purchase, which are sustainable guarantees; MG3: The procurement platform has a series of systems, purchases, evaluations, price comparisons, complaints, etc., to ensure compliance and operation with sustainable requirements; C1: The medical system determines procurement, and the changes in the medical system reform are constantly changing the content and methods of procurement. It turns out that some institutional problems will lead to unsustainable.	29
5. Supervision and assessment	Monitoring, assessment, political performance, generation switch, job occupation, goals, job report, interest balance, proposals, reports, corruption, punishment, interference, standard, execution, evaluation;	MG2: The People's Deputies and the CPPCC Committee have proposed and discussed the issues in this regard, and put some pressure on officials; EP5: If the performance assessment result cannot reach the goal, the relevant ruler will face job stress; DG1: The government managers may balance the usage of fiscal capital as well as the interests of environment and economy; C1: There are strict standards for our corporate environment and raw materials, and we must meet the standards for production; PH3: Waste and corruption are much better under supervision and pressure;	25
6. Media	Publicity, popularisation of science, multimedia, exposure, events, appeals, stress;	EP4: Incidents can be alarming, spurring short-term improvements that are not being valued for a long time, such as vaccine events, such as SARS, which promotes public health sustainability; DG3: The exposed organisation will lose business opportunities, and the pressure constitutes a supervisory role;	22

			MG1: New media promotes greener and more efficient procurement and service methods, such as online procurement and real-time settlement of medical insurance.	
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Based on the data, 'Law', as one of the political motivations, has been highly agreed while the less-developed law system construction has been regarded as a resistant factor. For example, MG5 expresses the disappointed feeling (see Table 6-1) and about 1/3 of participants indicated the same idea. One of the participants from the company has explained, *'Although the law and regulation have actively promoted environmental sustainability, the other fields are not good enough. For example, when government pharmacy uses tendering, it seems like open bidding, but behind that, there is a kind of local protection which has refused many enterprises to join in.'* According to the data, there are only 17 of 34 participants satisfied with current law system and SPP development. However, there is not any law that is designed to support health service, and it leads to the difference between expected goals with practical SPP performance. It can be seen that the driving effect of law is highly recognised, and the lag in the construction of laws and regulations makes it a kind of resistance. It can be judged from participants' expectation of laws and regulations that with the improvement of legal system construction, SPP will play a more positive role in promoting development in primary health service.

All participants in the research agree that the main motivation factors for the development of SPP in primary health service come from relevant policies and relevant policy support outside the health field. The data shows that the interviewees stand at different angles, but jointly express their interest and concern for government policies. The primary health service provider and a related product supplier have all expressed that SPP highly depending on policies (see Table 6-1). For example, *'Government*

*policy and management are of paramount importance. For example, for those seeking medical treatment, where to guide them, should they all go to large hospitals or be referred to different levels? For health practitioners, where do human resources flow and what is the enthusiasm of medical staff? It is the result of policy guidance.'*

Compared with other general products and services, the attributes of health services, the mode of payment of medical expenses, the relationship between supply and demand of services, and competition all show more complicated transaction characteristics. Therefore, the government prefers to use flexible policies to promote sustainability. DG1 says, *'As the legal system is relatively backward at this stage, policies are the main tools of government governance. We mainly rely on policy promotion. The basic medical and health procurement policy are solid. In such a sensitive and complicated field, it is a great challenge for both the makers and the implementers to make an excellent policy.'*

There are also some differences in the promotion of policies. Supporters put more emphasis on its practicability. MG4 claims, *'We also hope that everything will be done according to law, but not all places and all links have laws to follow, and there are laws that cannot be solved. Procurement is more about policy interpretation and policy application.'* Sceptics emphasise its effectiveness, PH1, *'There are many policies, the policies are unstable, the policies are not matched, and the laws and regulations are missing, so there is no law to follow, although the policies also have certain legal effects.'* The overall consensus is that government policies can better combine reality and effectiveness, stability and flexibility,

principle and flexibility, hierarchy and relevance in governance. Therefore, policy factors are highly recognised by the interviewees. Participants described the relevant systems, norms and standards promulgated by the government as powerful tools to promote SPP. Research data show that everyone talks about health reform frequently, and there is no dispute that government allocation of public resources, procurement system and law enforcement supervision are important driving factors of SPP. A relatively consistent view is that different systems will have different impacts on the demand for health services, which will in turn affect the direction and behaviour of procurement. It is because that the system will change the direction of health services and the specific service costs, which will have an impact on residents' medical consumption behaviours and demand. NG1 says, *'while considering the environmental and economic objectives, the purchase of primary health services places more emphasis on incorporating social standards. The government should not only purchase services, but also pursue the realisation of some policy objectives, such as the allocation of health resources suitable for national conditions, such as the maintenance of health justice.'* From Table 6-1, it can be seen that 'regulation and standard' and 'supervision and assessment' are highly valued. As C1 says, *'the medical system determines the procurement, and the medical system reform is constantly changing the contents and methods of procurement. Facts have proved that some system problems lead to unsustainable procurement.'* The procurement agency stresses, *'There must be legal procedures, certification and procedures to enter the procurement platform. We think the system is legal,*

*otherwise we will ignore it.'* Enterprise representatives agrees, C2, *'Logistics cannot meet the local sustainable requirements and will lose rare business opportunities.'*

The political factors in the conceptual framework from the literature research summary have been verified (see Table 6-2 in Appendix 6). At the same time, the data analysis found that the participants also concentrated on expressing other driving factors, such as when asking interview question 2 (in Appendix 6). 32 participants initially talk about the relevant contents of 'political claims' (see Table 6-1; Table 6-3); More than 60% of participants mention 'media pressure' (see Table 6-1; Table 6-4). EP3 pointed out that solving the problems of *'difficult and expensive medical treatment' and health justice are both related to social stability and the ruling party's position.'*

**Table 6-3 New themes of motivation 1 – Political claims**

Composite Themes	Coding Examples
<p><b>Political views</b></p> <p>32</p> <p>Ideology</p> <p>Normative constraint</p> <p>fundamental policy</p> <p>Post assessment</p>	<p>C1: If a cadre is a party member, he must consider keeping in line with the Party Central Committee. Political supervision and system rewards and punishments are very strict.</p> <p>C2: Political power is definitely the strongest in China.</p> <p>CH2: Now it is initiated by the state and promoted by the government. As a key strategic layout, governments at all levels must pay attention to it and achieve certain results within a certain period of time.</p> <p>CH3: Compared with laws, our policies and political leaders use more, such as government documents and political study.</p> <p>CH4: To promote some critical undertakings that affect the national economy and the people's livelihood through political opinions and political leaders such as the ruling party's ideology, line, stand and policy.</p> <p>CH6: Basically, leaders of all levels and departments are party members and cadres, and their political awareness must be unified and strengthened ... This is very beneficial for promotion.</p> <p>CH7: Propaganda of the ruling party's political views, because many of his cadres are party members, his performance appraisal will be affected by this.</p> <p>DG1: Health Project is related to people's quality of life and basic safety, and is the easiest to win the hearts and minds of the people. The government realises that this is the top priority of governing the country.</p> <p>DG2 has relatively large binding force and pressure in political and ideological lines, principles and policies, which are all important driving forces for sustainable procurement.</p>

	<p>The political commitment of DG3 will arouse the high attention of all organisations and personnel, and political requirements can also bring resources. Therefore, governments at all levels have made great investments in recent years. Universal health coverage is a political choice in our country.</p> <p>EP1: Cadres' political awareness must be consolidated. The top-down ideological line, principles, policies, programs and codes must be consistent. This is very conducive to promoting sustainable promotion.</p> <p>EP2: If the government does not do a good job in sustainable development, or if some major policies such as ideology, line, stand, spirit and viewpoint cannot be carried out. His achievements have been affected, as has his post assessment, which has put great pressure on the principal officials.</p> <p>EP3: Solving the problems of "difficult and expensive medical treatment" and health justice are both related to social stability and the ruling party's position, so political forces are very effective in pushing forward.</p> <p>EP4: The political atmosphere is very strong in our country. Political opinions and government performance appraisal are all great pressures to promote sustainable procurement.</p> <p>EP5: It has become a basic political proposition and political task. All levels of government must reflect this in the process of social governance. He has become a huge driving force.</p> <p>MG1: Our country's political advantages are obvious. For example, political ideas and propaganda are very useful for unifying ideas and forming external pressure.</p> <p>MG2: Environmental protection and health strategies are already basic national policies and national strategies and must be implemented.</p> <p>MG3: In China, the understanding of politics may be different from that of other countries. Foreign countries emphasise the</p>
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	<p>legal system, and we place more emphasis on political concepts, political positions and political thoughts.</p> <p>MG4: The government must fulfil its responsibility in order to verify the rationality and legitimacy of the form of government responsibility. Only a government supported and satisfied by the public has its own legitimacy and standardization. Therefore, it must be a political matter.</p> <p>MG5: The SPP you mentioned cannot keep up with the legislation in this area. Although the political views on sustainable development are very clear, various promotion measures are also accelerating.</p> <p>MG6: I think political propaganda and media supervision are very important driving factors, but the most important thing is the perfection of laws and regulations and the promotion of mandatory and unified.</p> <p>MG7: Health is now an important national strategy. Naturally, all aspects have policies and economic measures to support it.</p> <p>NG1: The advocacy of WHO, the binding of conventions on member states and the joint advocacy and binding of international organisations such as the United Nations constitute a strong global governance pressure. This promotion is very obvious, such as environment and human rights.</p> <p>NG2: Environmental protection and health strategy is already a basic national policy and national strategy and must be implemented</p> <p>NG3: As an official, political assessment often has a strong driving force, which is the national conditions.</p> <p>NG3: Health and sustainability have risen to the political level, which is the top priority for the ruling party and government and is also related to official positions.</p>
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	<p>PH1: Government's political promotion and economic support are all very important driving forces.</p> <p>PH2: In our country, one thing mentioned in the party's program is to raise the level of deliberation by the National People's Congress. That is the highest level and the most important thing. When he is regarded as a political task, as a ruler's responsibility and ruling program, his impetus is very strong.</p> <p>PH3: Waste and Corruption under Heavy Supervision Much Better</p>
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**Table 6-4 New themes of motivation 2 – Media**

<b>Composite Themes</b>	<b>Coding Examples</b>
<p>Media 22 New media Educational guidance Supervision pressure Influence decision-making</p>	<p>C1: Public opinion, political propaganda and your behaviour should correspond to each other. Once exposed, the corporate brand will be affected, the government image will be tarnished, and individuals may be affected in their career.</p> <p>C2: Various kinds of multimedia propaganda and popular science have influenced the education of citizens, exposed some incidents and appealed to and exerted pressure on relevant organisations.</p> <p>CH1 uses the supervision and publicity of social organisations and media to restrict and guide enterprise behaviour.</p> <p>CH3 Various media forums and programs related to health are also increasing, thus creating a favourable environment for people to better understand policies and accept new knowledge.</p> <p>CH4: New media has a large audience and spreads rapidly. For all public procurement stakeholders, it is not only a good platform and means, but also a source of supervision and</p>

	<p>restraint. Once questioned or exposed, it may cause huge losses.</p> <p>CH5: Now is a multimedia era, and procurement innovation can be carried out through Internet, big data and Internet of Things. At the same time, the new media has also become a tool for popular science propaganda, medical consultation and interactive communication.</p> <p>CH6: A lot of publicity has changed the public's concept, thus choosing sustainable health and medical behaviours, which has led to sustainable procurement.</p> <p>DG2' s sustainable development and healthy China strategy are both written into the government report and the ruling party's report, and the news media widely publicise and supervise, which has formed a huge impetus.</p> <p>DG3 media has obvious influence on people's psychological characteristics, behaviour structure, attitude tendency and other aspects, constantly changing people's way of thinking and lifestyle. it continuously provides a series of guiding social public values for the development and progress of the whole society, making the contemporary people's lifestyle and content have undergone tremendous changes.</p> <p>DG4: It is also emphasised in global governance now that various media in the world and at home are very concerned about topics, and there are often sensitive reports, forming pressure on governments of various countries.</p> <p>EP1: The media promote sustainable development from a positive perspective, including our fight against corruption in medical procurement, emphasising justice. These positive popular sciences promote, educate, influence and call on people to participate in sustainable development.</p> <p>EP2: Many appeals and proposals made by government agencies, NPC deputies, CPPCC members and social organisations are in this respect. News reports are also very</p>
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	<p>concerned about the issue, posing environmental pressure on governments, enterprises and organisations everywhere.</p> <p>EP3: Unexpected events can be alarming and promote short-term improvements that have been neglected for a long time. For example, vaccine events, such as SARS, have promoted sustainable public health.</p> <p>EP4: The media is a great driving force. On the one hand, they can publicise and guide. On the other hand, they can expose and expose, and then they have played a very good role in urging.</p> <p>DG3: Exposed organisations will lose business opportunities, and pressure constitutes the urging function.</p> <p>EP5: Drug procurement has a pharmaceutical affairs committee, equipment procurement has collective review and evaluation by the competent authorities, the behaviour of relevant procurement parties, the restriction of inspection, supervision and compliance by NPC deputies, CPPCC members and government supervision departments, as well as the high-pressure situation formed by the attention and supervision of the news media and the public to promote the normative development in this field.</p> <p>MG1: New media have promoted greener and more efficient procurement and service methods, such as online procurement and real-time settlement of medical insurance.</p> <p>MG2: If you do not do well and are exposed by the media, it will not only affect your reputation, but also affect your political career, and government officials will step down immediately.</p> <p>MG3: The media's publicity, appeal and dissemination have created a great pressure of public opinion and a situation of supervision.</p> <p>MG8: We have launched the Beijing Pharmacist WeChat Public Number. Every month, we have 22 affiliated hospitals contributing articles to promote popular science. We also need</p>
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	<p>advice and guidance on medication knowledge in city broadcasts.</p> <p>NG3: Now the news media focus on discovering and reporting the problems of the national strategy, which is a kind of supervision to all local governments. Moreover, many public purchases now reuse multimedia and Internet of Things technologies.</p>
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These findings show that participants describe the governing program and political claims as important driving factors of SPP. The understanding of the political motivation of SPP has changed, not only in terms of laws and policies. According to these results, the motivation mechanism of SPP needs a broader field of vision and more in-depth research, and the research combined with specific national conditions is also very necessary. These political factors are of great significance. For example, NG2 says, *'Environmental protection and health strategies are already basic national policies and national strategies that must be implemented.'* EP5 explains this, *'if the main performance appraisal target is not reached, the ruling party will face pressure to hold the post.'* Some people also point out that the continued in-depth coverage of certain events by the media will cause the public and the government to attach great importance to the formation of a governance environment. For example, SARS has promoted the sustainability of public health. DG3 points out that exposed organisations or individuals will lose opportunities for development, and pressure constitutes the urging function. These views were also supported when asked about other interviewees.

These findings provide two critical insights that can be used to enrich the conceptual framework of the SPP motivation mechanism. First of all, not only some traditional external drivers have obvious effects for SPP, such as policies and regulations, but also some driving factors worth digging, such as political claims and media publicity. Secondly, the interviews show that the results of political motivation depend on the role of human beings, such as the values of the rulers and executors, the concept of governing the country

and the ability of execution, etc. External motivation has been influenced by internal motivation. Therefore, it requires an in-depth study of the interaction between internal motivation and external motivation.

### **6.2.2. Economic factors**

The second theme is economic motivation. It is due to primary health service is one of the major economic activities and it relies on the support of the economy.

Previous studies have shown that SPP is the implementation of government expenditure policies and has become one of the main paths of national budget implementation (Zhang et al., 2018). Facts have proved that government financial expenditure is the source of health funds, and the number of resources available for health can be improved by increasing the budget expenditure scale. The ranks of satisfaction in most countries on the health service system are positively related to the amount of government health expenditure. Financing health services is conducive to improving accessibility and poverty-benefit distribution (Burger et al., 2012).

The data show that it is consistent with the results of literature research. Respondents during the interviews generally agree that economic development is the fundamental force to promote SPP (see Table 6-5). Most interviewees have mentioned the concepts of 'total amount', 'national income' and 'capability'. And increasing financial input has been regarded as the most direct driving force of SPP. All the interviewees from community health service organisations have a positive correlation between financial input

and SPP. For example, CH6 said, *'How to solve the medical and health problems is generally related to the national financial resources. Over the years, investment has been greatly increased. With economic development, I believe there will be better developed in the future.'* *'With economic development, the state's investment in basic medical care has increased significantly, and the scale and level of procurement have greatly increased.'* CH3, CH4 and CH7 have similar expressions.

**Table 6-5 Theme 2 – Economic motivation**

Major Themes	Composite Themes	Composite Codes	Coding Examples	Counts
2. Economic Factors	Economic development	Total amount, capability, enough ability, national income, improvement, structure, development, progress, improvement, affordability, sustainability, growth;	<p>EP3: How to meet the primary health needs depends on the national and local fiscal revenues. The scale and content of procurement are based on economic strength;</p> <p>MG2: Low income levels may not lead to illness, and high-income levels may lead to over-medical treatment, which is reflected in demand and thus affects procurement;</p> <p>CH3: The economy has developed, and the country has significantly increased its investment in primary health care. The scale and level of procurement have been greatly improved.</p>	30
	Financial support	Fundraising, taxation, policy, distribution, income and expenditure, fees, purchases, decentralisation, resource allocation, investment, budget, agency certification, purchase subject, transfer payments, subsidies, depreciation, compensation, payment	<p>DG2: How much money is going to be done, and the financial support for primary health procurement is the most critical;</p> <p>EP3: For procurement agency identification, public procurement catalogues and certifications are financial decisions, such as green products, cost-effective regulations, to ensure sustainable standards.</p> <p>CH5: Most government-funded construction, personnel income and service project purchases in community medical institutions are also financially funded, directly</p>	34

		methods, health insurance;	<p>guaranteeing the sustainable performance of procurement;</p> <p>EP6: There is obvious drawback if the payment methods are simply depending on service-based or people-based. It requires a multi-hierarchy and mixed payment system, which is also a development trend;</p> <p>CH6: Payment relates to cost allocation. The innovation on payment could relieve the difficulty of receiving health services and the stress faced by organisations.</p>	
	Value for money	Results, costs, finances, procurement lists, funding reductions, prices, price/performance, goals, criteria, assessments, social benefits, quality, safety,	<p>MG3: Pursuing 'value for money' will definitely promote sustainable procurement because standards and principles are in it;</p> <p>MG4: The procurement platform needs to compare prices, the first is to look at quality and safety, and the second is price;</p> <p>EP6: The cost is considered as a whole. For example, Beijing's pharmaceutical companies basically move out of the local market, and environmental costs are among them; for example, some special medicines are expensive but related to life, and they should be purchased as much as possible to meet the needs.</p>	27
	Procurement efficiency	Capital, efficiency, use, effectiveness, utilisation, waste, cost, savings, cumbersome, tendering,	DG1: Emphasise that the efficiency of capital use is very important for sustainable procurement, such as what to buy and how to buy it;	25

		centralised procurement, incentives;	CH1-8: Considering the efficiency of purchasing a service, for example, it takes a lot of effort to manually create a health record, but the utilisation rate is very poor;  EP6: Sustainable procurement will improve a lot if it solves management fragmentation.	
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Interestingly, in this research, participants rarely mentioned the problem of insufficient financial support or procurement funds (see Table 6-5 and Table 6-6). This may be due to the fact that community health institutions are basically organised and fully direct-funded by the government. At the same time, in recent years, the focus of the national health reform is 'strengthening the grassroots', resulting from the increasing investment in community health institutions and the continuous improvement in the size and environment of SPP. The study also found that economic development leads to an increase in income, which in turn leads to the expansion of consumption opportunities and consumption scale and changes in people's intrinsic motivation, which in turn leads to changes in preferences. It has also been reflected in public goods, will lead to corresponding adjustments in the structure of public expenditure.

Data show that financial support is considered as an important driving factor for SPP. Respondents pay more attention to the themes of 'financial payment', 'value for money' and 'procurement efficiency'. There are various financial issues raised, with more than 50% of respondents jointly raising 13 issues (see Table 6-6). This shows that people believe that the promotion of primary health service SPP does not depend on the addition of more financial funds, but on the correct assessment of demand, improvement of procurement efficiency and realisation of 'value for money'.

**Table 6-6 Interview findings on government finance**

CT	GT	Number of speakers	Examples
Financial investment	Insufficient funding; Policy does not match; Unreasonable distribution; Unclear decentralisation	14 24 21 11	CH5: Most government-funded construction, personnel income and service project purchases in community medical institutions are also financial contributions. Unreasonable input and distribution will lead to insufficient enthusiasm; DG4: The positioning of CHSs should be clear, and then consider investment. There is still a big gap between funding support and actual demand compared to demand development; DG3: The upper level government always gives the task no money, how much does the task cost? How to do it and don't care too much.
Value for money	Not effectively; Low cost performance; Unclear aims; Unclear standard; Lack of assessment; Low social outcome	19 20 5 22 5 21	CH3: There is still a lot of deficiencies in government investment. It seems that a lot of money has been spent in a year, but most of them are for rent. Real health care procurement and personnel service purchases do not necessarily increase, and this will affect community services level; MG5: Primary health procurement should be basic and not all. The boundaries of 'basic' are not clear. What is 'basic'? Is medical insurance reimbursement basic?; MG2: Simply stressing low prices also leads to a lot of necessary medicines and common medicines being out of stock. Enterprises are not profitable, stop production, and affect social effects.

Purchasing efficiency	<p>Low capital efficiency; There is waste; Cumulative approval; Lack of incentive</p>	<p>10 25 18 27</p>	<p>MG5: Financial investment has increased year by year, and the recent reforms are also hugely funded by the government. Now the key is to support reforms and enhance the efficiency of capital use; CH1-8: Considering the efficiency of purchasing a service, for example, it takes a lot of effort to manually create a health record, but the utilisation rate is very poor; EP6: The management related to sustainable procurement is cumbersome, the coordination of departments is poor, and the management of fragmentation will be improved a lot.</p>
Demand and supply	<p>Unbalanced demand and supply; Unclear demand; Structural problems; Lack of human resources; Lack competition</p>	<p>23 18 14 28 8</p>	<p>NG2: The demand is unlimited, not everything can be satisfied, but the overall need to consider the demand, follow the demand; MG2: Low public income levels may not lead to illness, and high-income levels may lead to over-medical treatment, which is reflected in the demand affecting the procurement content and structure; CH2, 5, and 8: With limited staff capacity, and long-term lack of human resources investment makes it difficult to meet demand in the short term.</p>
Pay	<p>Transfer Payment; Compensation method; payment method</p>	<p>17 18 17</p>	<p>EP6: There are obvious drawbacks in terms of project-by-project and per-person payment. Establishing a multi-level and mixed fee settlement system is a development direction; MG2: Reasonable settlement method is of great significance for the treatment of diseases, the quality of medical treatment, the rational allocation of health resources, and the excessive growth of medical expenses;</p>

			C1: The medical insurance institution always gives us money very slowly. It leads to long-term pressure on corporate funds and difficult operation.
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Cost efficiency is a commonly mentioned crucial driving factor of SPP, and 'supply and demand balance' and 'payment method' are also widely discussed. It is believed that how health resources are fairly and reasonably allocated and effectively utilised reflects the concept and implementation ability of a national or regional government in planning, decision-making and implementation of health affairs, just like MG5's opinion (see Table 6-6). Moreover, NG3 states, *'Money is always useful and limited. The total investment is increasing. Where is the money going? How? Whether to push or hinder the results is different. At present, the shortage of community strength and the low utilisation rate of secondary hospitals are all problems of previous investment structure.'* MG6, *'Beijing was the first to start community health service pilot projects, and Beijing's financial support for medical care has always been relatively strong. However, in the past, the distribution of resources was uneven, and there were problems of low efficiency. For example, everyone poured into 3A hospitals, and community hospitals were in short supply.'* These views expressed the support of the majority of respondents for the promotion of sustainable development by the efficiency of fiscal expenditure. However, the actual situation was not satisfactory. Thus no positive motivation of SPP was formed.

The payment method of SPP in primary health service is also a hot topic. Respondents from pharmaceutical production and service organisations generally pay attention to the compensation mechanism and payment methods. EP2 believes, *'the supplementary demanders can save administrative costs and promote competition among service providers. The key for the*

*government to promote the realisation of universal health insurance is that the government's health expenditure should focus on the supplementary demanders.'* However, EP4 believes, 'excessive medical treatment may occur when the government subsidises a large number of funds to the 'demander' of medical insurance under the condition of 'supply inducing demand.' EP6 advocates 'two-pronged approach' and puts forward, 'there are obvious drawbacks in the SPP motivation framework and the proof of payment per head. it is a development direction to establish a multi-level and mixed expense settlement system.'

These findings provide two critical insights that can be used to improve the motivation mechanism of SPP. First of all, in the study, the participants expressed that the economic foundation and financial strength have the essential safeguard function to the SPP. In this aspect, the promotion level has the value to the SPP. Secondly, interviews show that compared with increasing health resources investment, how to better support primary health service procurement with limited budget, improve procurement efficiency and realise 'value for money' is more worthy of study.

### **6.2.3. Organisational factors**

The third theme focuses on the organisational impacts throughout SPP. The data analysis within organisational motivations has shown consistency with literature review findings (see Appendix 6). All the composite themes in the conceptual framework established by literature research have been confirmed. Consistent conclusions

confirm that organisational factors are important motivations for SPP.

Respondents believe that active promotion of SPP is not only influenced by political and economic factors, but also driven by organisational environment and inter-organisational cooperation, especially internal factors of the organisation. For example, the strategic vision of the organisation, the organisational culture, the quality and ability of its members, and the fit between SPP policies will affect the sustainable performance of public procurement (Grandia et al., 2015). It is very consistent with relevant theoretical research results (see Appendix 6).

According to the data, the organisation-related SPP drivers emphasised by the interviewees mainly focus on 'organisation-related', 'organisational human resources' and 'stakeholders', and almost all of them actively talk about relevant issues (see Table 6-7). Although the participants stand at different angles and put forward different opinions, they can still find the direction of their attention and the views they hold are consistent. Table 6-8 provides some data from the study, which can clearly show participants' concerns and attitudes.

First of all, the organisational environment has a profound impact on the SPP process. It has been mentioned by most interviewees, which verifies the research results of the previous two topics in this section. Environmental pressure forms the driving force for the organisation to strive to achieve the SPP goals.

**Table 6-7 Theme 3 – Organisational motivation**

Major Themes	Composite Themes	Composite Codes	Coding Examples	Counts
Supply chain and organisational factors	1. Organisation	Organisational culture, organisational incentives, leaders, teams, learning, training, collaboration, standardising environmental pressures, codes of conduct, customary methods, risk responsibilities, identification acceptance, benefit protection	<p>DG4: Pharmacy and treatment could help the popularisation of sustainable knowledge and products;</p> <p>MG6: Our CHS industry organisations have a great role in setting norms and strategies;</p> <p>CH7: The government will invite social organisations to participate in the supervision and evaluation of the quality of our procurement and purchase services;</p>	34
	2. Stakeholder	Government, financial department, health department, enterprise, medical institution, logistics, industry management, patients, residents, medical insurance institutions, purchase subject, use subject, undertake subject, supervisory subject, willingness, enthusiasm, distribution, kinetic energy, equity,	<p>EP4: Government-led procurement, the ideas and preferences of the main leaders at all levels of government are important factors;</p> <p>PH2: The policy determines the enthusiasm of the health care provider and then communicates to the performance of the purchase service;</p> <p>CH2: The scope and basic configuration of community medications are the government's standards. How to seek medical care, what services to provide, and what medicines to purchase depends mainly on policies;</p>	31

		profit, business, profit, competition		
	3. Human resources	Procurement staff, medical staff, distribution staff, supervision staff, learning, knowledge, ability, quality, experience, professionalism, training, judgement, levels, encouragement, attitude	<p>EP5: Local government has important role on balance economic development, environmental protection, and people living standards;</p> <p>MG8: In the process of executing procurement, the role of procurement personnel is obvious, and the choice space is large;</p> <p>CH2-5: The human resources of government procurement organisations are scarce, and support for sustainable procurement must be changed;</p> <p>MG2: Service providers' capability impacts on the performance of health service purchasing;</p> <p>MG8: Professional procurement staff are few as well as experts in government departments. This has created difficulty in 'active purchase' and sustainable procurement process.</p>	30
	4. Supply chain	Supply chain, service chain, process, stakeholders, production enterprises, logistics, distribution, coordination, cooperation, interest	C1: Raw material supply, production process and logistics and transportation. All supply chain environmental protection is the basic bottom line, and it is becoming more and more strict;	12

		appeal, impact, pressure, graded referral	C2: The logistic costs in remoted area are relatively higher and it could only be solved by enterprises themselves;  CH2: There are plenty of stakeholders involved throughout the primary health service procurement, they may promote to each other or restrict to each other.	
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Secondly, the support of the top management team is crucial. The team directly or through their influence on the organisational culture (Govindan, 2014), integrate the objectives of the strategic plan into the procurement process and procedures, and play a fundamental role in adopting socially responsible procurement practices. MG2 indicates the common opinions with most interviewees from government agencies, *'The thoughts and attention of the top leaders are the most important, and the top-down promotion is the most beneficial.'* Participants in the interview pointed out that the organisation's leaders have been continuously raised their awareness level, committed to the responsibility of SPP, and have high pressure on performance appraisal, which has supported SPP to be actively promoted. DG3 believes, *'the leadership's emphasis will affect the government's investment in specific areas, as well as the ease of coordination among various departments and sometimes the choice of participants.'* This has confirmed the results of the first part of the conceptual framework. In Table 6–8, the data show that both the first and second factors are closely related to leaders and are emphasised by many interviewees.

**Table 6-8 Interview findings on organisational factors**

CT	GT	Examples	Interviewee	Sum
Strategy	<p>Cultivate strategic concepts</p> <p>Develop strategic planning</p> <p>Implementation strategy purchase</p> <p>Advocating demand orientation</p>	<p>EP3: The goals of the SPP are now articulated and reflected in the national strategy and plan, which forms the platform and motivation of the relevant organisations;</p> <p>DG3: Community health industry organisations develop norms and strategies to drive industry organisations to collectively mobilise SPP;</p> <p>MG6: Organisational strategies may have a significant impact on the supplier's market structure and the nature of the goods and services provided through procurement tenders;</p> <p>NG3: No matter whether it is a national policy or regulation problem, a problem of enterprise production, or a problem of hospitals and doctors, it is impossible to maintain the interests of the service providers. It will cause social problems, such as accessibility problems, quality problems, and cannot be sustainable. So to meet demand-oriented.</p>	<p>CH 3 5</p> <p>PH 1-3</p> <p>DG 3 4</p> <p>MG 2 3 4 6</p> <p>NG 2 3</p> <p>EP3 4 6</p> <p>C 1 2</p>	18
Leadership	<p>Leadership claim</p> <p>Leadership influence</p> <p>Leadership art</p>	<p>NG1: All levels of organisations, as long as the leadership is highly valued, support SPP, the most leading;</p> <p>CH3: Leadership advocates what influences organisational culture. The enthusiasm of grassroots institutions to retain people and mobilise people requires leadership;</p>	<p>CH 1 3 6 7 8</p> <p>PH 1-3</p> <p>DG 2 3</p> <p>MG 1 2 4 6</p>	20

		C1: The influence of business leaders is important, and it has different promoting effects on the sustainable behaviour of supply chains and stakeholders.	NG 1 3 EP1 5 6 C 1 2	
Process	Medical service process Centralised procurement process Purchase service process Decentralised procurement process Project approval process	MG5: Medical organisation services need to be clearly positioned to determine what to purchase and how to purchase. Implementation of the referral system leads to changes in the service process and thus affects the purchase of service content; CH1: Internet procurement platform, e-procurement has greatly saved our time and expenses, improved efficiency, and eliminated corruption; EP6: Purchase service is a continuum of tight links. Purchase entities, users, undertakers and reviewers have their own responsibilities and relative independence, and they are closely linked and connected to promote sustainable procurement; CH8: We need standard processes and basic guidelines for equipment and consumables procurement. Although the approval is slower, we can ensure sustainable standards.	CH1-8 PH 2 3 DG 1 2 MG 5 NG 2 EP 2 5 6 C 1	18
Human	Person match Professional ethics Professional knowledge Mentality	NG2: The country began to pay attention to primary health care. In the future, cultivating a large number of general practitioners and corresponding talents will have a positive effect on the effectiveness of sustainable procurement and purchase services; MG2: Improve the ability of the recipient to improve the performance of the purchase service;	CH 1-8 PH 1 -3 DG 3 4 MG 3 4 5	23

		<p>NG3: There are very few professional procurement personnel, and there are not many people in the relevant government departments who know how to purchase. This will bring some obstacles to active purchase and sustainable purchase;</p> <p>CH2, PH1: Purchasing values have a great impact on their behaviour. If commitment is sustainable as a basic criterion, it will naturally affect behavioural sustainability, not price-oriented or personal interests.</p>	<p>NG 2 3</p> <p>EP 2 4</p> <p>C 1</p>	
Incentives	<p>Physical incentive</p> <p>Develop and develop</p> <p>Autonomy</p> <p>payment method</p>	<p>CH6: In the community service purchases, the organisation's decision-making power and appropriate compensation incentives have been increased, and the promotion of family doctors' signing and provision of personalised service packages has been greatly promoted;</p> <p>MG2: Under the current policy, we give training, learning opportunities, incentives and empowerment to the medical staff;</p> <p>C1: Some pharmaceutical manufacturers are reluctant to produce essential drugs, drug distribution companies do not operate essential drugs, and there is a shortage of essential drugs in CHS institutions.</p>	<p>CH 1- 8</p> <p>PH 1-3</p> <p>DG 3 4</p> <p>MG 1-6</p> <p>NG 1-3</p> <p>EP 1-5</p> <p>C 2</p>	28
Cooperation	<p>Intra-organisational collaboration</p> <p>Procurement related body synergy</p> <p>Stakeholder collaboration</p>	<p>NG1: Primary health procurement, involving purchase catalog development, production services, procurement and distribution, fair use, price management, payment reimbursement, quality supervision, monitoring and evaluation, etc., the cooperation and effective management of various stakeholders promote sustainable effect;</p>	<p>CH 2 6 7 8</p> <p>PH 1-3</p> <p>DG 1 3</p> <p>MG 4 5 6</p>	21

	communication	<p>C2: We usually negotiate with medical institutions and try to log in to the platform application in advance, so that we can plan the distribution lines and strengths to meet the needs and minimise our costs;</p> <p>CH5: After purchasing the service, if the medical staff and medical technicians cannot coordinate, it will be difficult to meet the demand and achieve sustainable economic and social effects.</p>	<p>NG 1-3</p> <p>EP 1 2 3 5</p> <p>C 2</p>	
Environment	Policy, regulation, economic, cultural, social supervision	<p>MG3: Organisations must implement procurement within the scope of national regulations and policies, and financial resources are also a prerequisite;</p> <p>CH7: The government will invite social organisations to participate in patient visits to supervise and assess the quality of purchase services, creating pressure;</p> <p>NG3: The public expenditure process involves the government sector, and there must be political factors. Therefore, the multi-layer principal-agent relationship in the public service purchase process has different specialities from the principal-agent relationship in the market field;</p> <p>C1: The supply of raw materials, production processes and logistics, our company and the upstream and downstream organisations are all the basic bottom line of the supply chain, and more and more strict.</p>	<p>CH 1-8</p> <p>PH 1-3</p> <p>DG 3 4 5</p> <p>MG 2 3 4</p> <p>NG 1-3</p> <p>EP 1-6</p> <p>C 1- 2</p>	28

Thirdly, procurement personnel and procedures are considered to play an essential role in promoting SPP (Table 6-7; Table 6-8). MG3 comments, *'SPP has higher requirements for organisational management and professional talents. Procurement personnel should be professional and experienced. We are ordinary civil servants. In the past, they were only performing official duties, but now they are not. They are not very suitable.'* The implementation of SPP is directly affected by the purchaser's behaviours. For example, procurement skills are an important part of road procurement and a prerequisite for procurement to play a role in the organisation. Their behaviours are related to the success of procurement (Grandia, 2016). It is worth noting that CH6 view represents the attitude of SPP related organisations, *'it is the key whether grass-roots health service institutions have enthusiasm. What you add to him is a burden. If you buy and provide services, give me an incentive mechanism, right?'*

These findings show that the SPP behaviour requires the executor to have sufficient motivation and voluntary commitment (Grandia, 2016), and the SPP behaviour depends to a large extent on the purchaser's personal beliefs and attitudes. However, meeting their needs through incentives and value transformation can have a positive impact on promoting the results of SPP (Grandia et al., 2014).

Fourth, literature and empirical studies have reached a common conclusion that stakeholder collaboration has a driving force for the development of SPP, and close relationships can have a positive impact. The 31 participants express the vital role of stakeholders in SPP from different angles, which are respectively analysed in

strategy, process, personnel, mechanism, coordination and environment (see Table 6–8), and are also confirmed under other topics. As CH2 said, *'there are many stakeholders in primary health service procurement, which may promote each other or restrict each other.'* EP6, *'Buying services is a continuum. The buyer, user, receiver and reviewer have their respective responsibilities and relative independence, and they are closely linked and connected to promote sustainable procurement.'* Most participants shared this view (see Table 6–7; Table 6-8).

Fewer participants in the interview took the initiative to mention the health service procurement within the supply chain, and some interviewees used to apply words such as 'system' and 'process'. The opinions expressed involve relevant factors such as procurement process, stakeholders, organisational coordination and organisational incentives. Such as MG5 says, *'I don't think there is a real supply chain yet, but there is a cooperative system. This system, led by the government, should strengthen the incentive to all parties in the SPP and jointly achieve the goal.'* Most interviewees regard procurement as an area of inter-organisation collaboration, involving different organisations, but they should work together based on the situation of each organisation (Sayed et al., 2017).

Some scholars and enterprise interviewees are familiar with this field and believe that SPP has value-added and linking functions in the context of a sustainable supply chain. For example, EP1 points out, *'Purchase of services and purchase of medical equipment involve the supply chain structure but are different. To manage from this angle can achieve a better final goal.'* C1 believes, *'the*

*quality and sustainability of drugs require the sustainable responsibility of doctors from research and development, raw material procurement to production, distribution and finally, problems in a certain link are ultimately not conducive to health and sustainability.'* Another enterprise representative supported this view C2, *'the supply chain is very important. The upstream and downstream of production, such as the above policies, research and development, the following distribution, payment and use, have a great impact on procurement. moreover, everyone is in the same chain, and anyone who goes wrong may suffer.'*

#### **6.2.4. Resources and cultural factors**

The fourth theme reveals the combination of subjective and objective supports. Values and culture are the support of SPP's subjective will, while resources are the support of SPP's objective conditions. Almost all interviewees pay attention to these two aspects at the same time and regard them as critical driving factors of SPP (see Table 6-9). The fourth theme means that the implementation of SPP needs the support of cultural values, as well as necessary conditions and foundations.

**Table 6-9 Theme 4 -- Resources and cultural motivation**

Major Themes	Composite Themes	Composite Codes	Coding Examples	Counts
4. Value and resources	1. Value view	Values, ideas, opinions, beliefs, awareness, norms, positions, human rights, comprehensive sustainability, environmental sustainability, social sustainability, new ideas, new concepts, spirits, convictions, pursuits, conscious behaviours, dominant values, mainstream values, common Values,	<p>MG5: The first thing to do is to change the behaviour;</p> <p>EP6: Values are important, governments and the public change values, and sustainability is more motivating;</p> <p>DG1: Many problems stem from the concept, the concept of procurement is not uniform, and sustainability will form resistance;</p> <p>EP1: Some advances in sustainable procurement are related to changes in values, such as awareness of grassroots health and awareness of big data, which greatly enhances these strategic procurement inputs.</p>	34
	2. Culture	Medical culture, health concept, health culture, organisational culture, social culture, habits, traditions, theory, education, unspoken rules, scientific popularisation, political culture, business culture, public power, cultivation,	<p>EP2: Social civilisation and culture can promote sustainability, such as recycling and moderate medical care;</p> <p>NG3: Organisational culture is binding on members of the organisation and forms a convergence of sustainable behaviour;</p> <p>PH1: Changes in health culture and medical culture can promote sustainability;</p>	34

		change, communication, promotion,	CH2: The long-established health culture and medical culture of the residents should be studied. The purchase of services requires individualisation to be worth the money.	
	3. Resources	History, conditions, resources, endowments, differences, pursuits, human resources, inputs, foundations, assets, information, technology, means, tools, methods, paths, support, objective, backward, lack, superior, waste, reserve, integration, technology	<p>NG2: The resources in different regions are different, and the abundant resources have great advantages for purchasing and purchasing services. However, this history is difficult to change at a time;</p> <p>MG4: The social foundation is important in terms of social sustainability. Insufficient procurement talents and insufficient service talents have led to procurement efficiency and performance to a certain extent;</p> <p>MG1: Purchasing now uses Internet and communication technologies to reduce costs and increase efficiency;</p> <p>EP4: There is information asymmetry in health service procurement. Information sharing and communication can promote SPP efficiency;</p> <p>CH3: New technology products help reducing the pollution and increase the efficiency.</p>	31

Data analysis shows that 'value' and 'culture' are high-frequency words appearing in interviews. Participants repeatedly mentioned values and concepts under multiple themes, reflecting participants' concern for people's subjective will (Table 6-9). As MG2 pointed out, *'All things must first have an understanding or value. People have a process of understanding some things, and they are continually improving. In the past, people generally did not know enough about SPP.'* There are many similar expressions. EP3 emphasises, *'The concept is very important. If there is no solution to the problem in the concept, it will definitely be ignored and nothing will be done. Of course, the operation needs comprehensive legal support.'*

Respondents often mention concepts and values at the beginning of expressing their opinions on a particular issue. Table 6-10 summarises some views on how the 'concepts' and 'values' put forward by interviewees affect SPP. Data show that the values and culture mentioned by the participants cover almost all SPP stakeholders, involving social culture, organisational culture and medical treatment culture. For example, DG3 points out, *'From the perspective of consumers, people have different levels of understanding of health care, and the long-term formed' medical culture' is also different, so their behaviours and healthy lifestyles are different. As far as the government is concerned, the degree of emphasis on medical and health care, the connotation of SPP and the understanding of the system are different, which determines the policies and results of relevant procurement in various periods are quite different.'* It shows that the cultural concepts of different stakeholders will affect their attitudes towards SPP, thus forming a pushing or resisting force to SPP.

**Table 6-10 Interview findings on value concepts from stakeholders**

Stakeholders	Value concept	Driving role	Sample quotes	Interview
Government	Sustainable development	Promote the development of shared values;	Public procurement is government-led, and the government's philosophy determines sustainable development and forms a driving force in politics, such as through legislation and policy constraints.	EP
	Fair and justice	Promote the construction of relevant laws, policies and systems;	The concept of 'health for all' promotes the process of health equity, promotes social stability and achieves social sustainability.	NG
	Democratic governance	Develop and implement relevant strategies; guide demand;	Now gradually solve the problem of managing fragmentation, including inter-departmental collaboration between institutional reforms and procurement decisions.	MG DG CH C
Organisation	Sustainable procurement	Form organisational culture and norms;	Now procurement takes into account more government functions, such as fairness and accessibility, not just the lowest price.	CH
	Value for money	Encourage the sustainable behaviour of training members;	Safety and quality are placed in front of the price, and meeting our needs is our responsibility.	MG
	Strategic purchase	collaborate inside and outside the organisation to improve efficiency;	Organisational culture and motivation determine whether people are willing or empowering to participate in sustainable activities, especially buying services.	NG
	people oriented	Guide demand;		PH DG EP C

			Sustainable procurement needs to be coordinated internally and externally, and common interests need to work together to unify consciousness to achieve it.	
Leadership	sustainable development people oriented Governing for the people	Lead, demonstrate, and clarify direction; Supervise and promote implementation;	Leader's words and deeds can best express the pursuit of the organisation. In the context of administrative management, the lower level pays more attention to the attitude of the superior.  How to do it, leadership guidelines and rewards and punishments have a great impact on the implementation.  The values of local leaders have a great influence on the direction of local policies and financial resources, etc.	EP MG DG C CH PH
Public	sustainable development Health orientation Prevention	Form mainstream values; Social communication and education; Participation, collusion, supervision, promotion; Demand orientation;	It is necessary for the whole people to understand the promotion and unity and realise their own interests. Only government advocacy is far from enough.  Now the public's awareness of sustainable development has been significantly improved, with a lot less resistance and a lot of pressure and supervision.  Public health-related procurement has many opinions from the public, starting from demand.	NG MG DG CH PH C EP

Patient	<p>sustainable development</p> <p>Health orientation</p> <p>Moderate medical care</p>	<p>Demand expression;</p> <p>Participate in supervision;</p>	<p>More changes in the medical culture, such as taking more medicines and going to large hospitals, are not only conducive to rationalizing the structure of resources, but also reducing a lot of waste.</p> <p>The level of drug supply and service delivery, the opinions of patients are the most convincing, and the pressure on institutions.</p> <p>People's ideas need to be guided, and once their values change, they form a sustainable traction.</p>	<p>CH</p> <p>DG</p> <p>MG</p> <p>EP</p> <p>PH</p>
Medical staff	<p>Sustainable procurement</p> <p>Value for money</p> <p>Demand oriented</p> <p>Moderate medical care</p>	<p>Demand orientation;</p> <p>participation in implementation;</p> <p>popular science education</p>	<p>Breaking the 'medical treatment with medicine', the concept of public welfare service has reduced the behaviour of excessive medical treatment, reduced costs and improved social benefits.</p> <p>Community healthcare professionals are the most convincing of the actual needs and ways to meet their needs, and participating in sustainable procurement is the most convincing.</p> <p>The change in the mindset of most patients and their families is related to the doctor's publicity.</p>	<p>CH</p> <p>EP</p> <p>DG</p> <p>MG</p> <p>NG</p> <p>PH</p>
Enterprise	<p>sustainable development</p> <p>Demand oriented</p>	<p>Demand oriented</p>	<p>Sustainability requires a price, and it is cost for us. But now we can accept this idea and find a way to solve it ourselves.</p>	<p>C</p> <p>EP</p> <p>DG</p>

	Strategic procurement		<p>The public and the patients are getting louder and louder, and the companies are extraordinarily serious, promoting business improvement and innovation.</p> <p>Now the values of the company have changed, and the entire supply chain is guaranteed from the source.</p>	MG NG PH
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CH7 indicates a particular problem, and other participants have also confirmed this view. *'The position of primary health service in the region has certain relations with leaders' values and the government's ruling concept. At the same time, it also has certain influence on the relationship with various administrative departments in the territory. Although you have a demand report, the government also has money in its hand. The government must weigh where to invest. Even if that is not the highest priority, it may still be voted.'* It means that decision makers do not always consider the procurement problem from the perspective of demand, or refuse to adopt SPP due to lack of resources. The key is what kind of concept and value evaluation criteria are used. There may be more complicated reasons behind this concept and balance. The data listed in Table 6-10 vividly proves this point.

The results of literature research in chapters 2 and 3 of this research show that SPP needs specific material basis and conditions, and one of the basic elements of implementing SPP is to have specific resources, because different resources have direct or indirect motivation effects on SPP. This logic is confirmed (see Appendix 6 and Table 6-9), as NG1 said, *'Beijing has a high level of economic and social development, SPP has secured financial resources, and medical resources are also very abundant.'* MG3 mentions, *'Since the new round of Beijing health reform in 2009, primary health services have become a key area for strengthening, and the government has increased its investment every year.'* Most interviewees agree with this, reflecting the participants' common view that resources are positively related to SPP. Table 6-9 shows that the resources mentioned by the participants that affect SPP in

the primary health service field include, geographic resources, human resources, technical resources and information resources.

Resources are congenital to some extent, but the status of resources can also be changed. A statistical data recommended by the interviewee shows that in the past three years, the resource situation in the field of primary health service has been greatly improved due to the change of government concept and emphasis on public welfare. At the same time, the local economy has developed well, the health investment in the region has been continuously strengthened. The government's fiscal expenditure has given great support to SPP, and the overall increase of various resources usage has expanded rapidly (see Table 6-11; Table 6-12).

**Table 6-11 Beijing CHS organisations and staff**

Total amount in 2011, 2015-2017					
		2011	2015	2016	2017
CHS organisations		1744	1979	1997	2066
	CHS Centres	312	326	329	334
	CHS Stations	1432	1653	1668	1732
Overall number of workers in CHS		25119	28744	29753	31797

	Health service workers	20677	24059	24932	26495
	In average per CHS centre	80.5	88.2	90.4	95.2
Number of workers in CHS stations		2388	2684	3042	3377
	Health service workers	1924	2134	2411	2650
	Avg.	1.7	1.3	1.8	1.9
City-wide village clinic		2986	2815	2789	2832
	Workers	3746	3439	3409	3247

**Table 6-12 Beijing CHS financial input**

		2011	2015	2016	2017
Total costs in CHS	(0.1billion RMB)	75.4	145.5	170.8	215.9
	Financial support	29.2	52.1	52.3	64.1
Costs increase		22.0; 41.3%	17.4; 13.6%	25.3; 17.4%	45.1; 26.4%

	Financial support increase	10.1; 52.9 %	8.5; 19.4%	0.2; 0.4%	11.7; 22.5%
Total costs in country CHS		6726(10,000R MB)	1.0092	1.0339	1.2
	Upper-level financial support	2428 (0.1million RMB)	5029	5204	8688
Total costs increase		421; 6.7%	93.3; 0.9%	246.3; 2.4%	1943; 18.8%
	Support increase	5.7%	3.4%	3.5%	67.0%

Table 6-11 shows the steady growth of primary health service institutions and personnel in the whole region. Table 6-12 shows the steady increase of financial investment of primary health service institutions in the entire region. The vast majority of primary health service institutions in the region rely on government investments, and employees' compensation is government-funded or from purchased services. The continuous growth of these two aspects has dramatically improved as compared with the local primary health resources six years ago. These data not only confirm the previous conclusion that political and economic factors have promoted the SPP, but also reinforce the effect of the government changing concepts and values on SPP. People's subjective role can improve the situation of human, financial and material resources in a certain

field or region, thus forming a vast supply and demand of SPP and promoting the development of SPP. The interviewees have been generally agreed with this point.

Participants from the SPP direct buying and selling agencies expressed superiority over regional resources in Beijing comparing with the rest of the country, as stated in CH1, *'Beijing has relatively rich health service resources, and the purchase of primary health services and public health SPP power framework are all well-equipped, so it is easier to get the support of Grade A tertiary hospitals and the medical union is smoother.'* CH3, *'There are now online orders on the sunshine purchasing platform. Logistics is very convenient. Drug purchasing is convenient and the cost is low.'* Most interviewees believe that the regional resource advantage not only reduces the purchase cost, but also better meets the needs of patients and promotes the improvement of people's health level and health justice. MG5, head of the procurement agency, says, *'Our procurement platform is a collection of bidding results for drug procurement in all provinces of the country. Quality is a priority, price guarantee is relatively low, and the variety is far beyond the national essential drug list. It is safe, efficient and convenient.'* Nearly 80% of the interviewees stress that the resource advantage is the internal driving force to drive the local SPP, especially the advanced consciousness, stable financial guarantee and abundant information resources.

Of course, not all conclusions are optimistic, and there are resources insufficiency and differences. DG2 says, *'There are differences between regions, different natural conditions, medical conditions, cultural basis, etc., difficult to unify policies, and*

*different requirements and procurement conditions, which may lead to different SPP problems and different effects in different regions.'*

Table 6-13 summarises the resource distribution differences listed by the interviewees and the possible impact on SPP.

**Table 6-13 Resources between central city and remote area**

Resources		Impacts to SPP	Central city	Remote area
Environmental		Cost of environmentally friendly	Mid	Low
Economic		Health input	Good	Normal
Cultural		Health awareness development	Higher	Lower
Transportation		Logistics impact	Good	Normal
Health	Service organisations	Reachable convenience	Good	Normal
	Human resources	Demand satisfaction	Higher	Lower
	Technology	Innovative	Good	Normal
	Equipment	Fully equipped	Good	Normal
	Social insurance	Payment ability	Higher	Lower
	Information resources	Usage	Higher	Lower

The data show that the factors with better resources have all played a leading role in SPP, and the lack of resources has also become

one of the resistance factors of SPP. For example, C2 says, *'Ecological conservation and development areas are mostly mountainous areas, with inconvenient transportation, scattered outlets, small drug distribution batches and high logistics costs. Sometimes meeting special emergency needs is even more troublesome. But we must deliver it.'* CH1 points out, *'Originally, medical professionals were reluctant to come to community health institutions. Due to remoteness and insufficient patients, their personal growth was limited and their income was not high, making it difficult to attract talents.'* MG1 provides some measures for the government to improve the resource situation, *'In recent years, the government has continuously increased the supplement of financial, material and human resources to the emerging marginal areas, such as subsidies for health expenses for purchasing services, exchange and training of human resources, regionalisation and upgrading of local medical resources, and extension of social resources such as medical treatment in core areas.'*

These findings show that the promotion effect of resource advantage on SPP is unanimously recognised. Resource differences may lead to differences in the cost of SPP and the purchase effect of medical services in different locations. Unequal distribution of medical resources, irrational distribution structure and unsound public health service system are also important factors affecting the fairness and efficiency of health services.

### **6.2.5. Responsibility and interest-based factors**

The fifth theme considers the responsibility consciousness and interest-driven are always an important motivation for economic and social activities. People are convinced that by taking responsibility and seeking their own interests, they can set goals for their efforts, encourage themselves and seek corresponding cooperation.

The data in Appendix 6 and Table 6–14 show that, consistent with the results of literature research, the motivation factors such as 'responsibility', 'demand' and 'interests' under this theme are commonly recognised and frequently discussed. Each interviewee talks about the above factors under this topic or other topics, which greatly exceeded the attention of other factors, and strengthened the confidence of this research.

Primary health products are a special kind of public goods. General merchandise and services meet the principle of 'effective demand with the ability to pay'. The demand for primary health service is often expressed as 'demand that lacks the ability to pay but must be met'. Priority should be given to the principle that 'everyone has the right to life and health'. However, most countries or regions have limited health resources for a certain period time and cannot meet the unlimited health needs of social members. This requires the government to take more responsibility for the impact of interest distribution and provide basic guarantees. To realise the equalisation of primary health products requires a basic bottom line.

**Table 6-14 Theme 5 – Responsibility and interest-based motivation**

Major Themes	Composite Themes	Composite Codes	Coding Examples	Counts
5. Interests and responsibility	1. Responsibility self-conscious	Government, official, responsibility (different expression in Chinese), obligation, governing program, leadership, task, commitment, conscious, cognition, commitment, responsibility, consciousness, function, role, positioning	<p>CH7: The government realises that responsibility is conducive to social sustainability. Primary health care is public service, mainly the responsibility of the government;</p> <p>EP4: Primary health care adheres to public welfare. The government plays a decisive role and cannot be solved by marketisation. Otherwise, it is impossible to achieve sustainable goals;</p> <p>NG1: Primary health procurement is led by the government. If the government recognises and fulfils its sustainable responsibilities, it can lead other participants, and this is the internal motivation and commitment;</p> <p>NG3: The concept of development and health is a process of continuous improvement. Now it emphasises 'everyone enjoys health', fairness and justice become sustainable connotations. The government can realise that changing the governance model, the government does not realise that you are off target.</p>	34

	2. Demand	Needs, motivations, behaviours, levels of demand, changes in demand, externalities of demand, non-competitiveness, health justice, vulnerable groups, political stability, social harmony, polarisation between rich and poor, health needs, demand, material needs, spiritual needs, internal motivation	<p>NG1: The need for health and fairness and justice is growing stronger, leading procurement to place more emphasis on social sustainability goals;</p> <p>CH3: The financial contribution, the supplier does not necessarily provide good products, because we do not understand the demand, we invite them to design and transform together in the community, the effect is different.</p>	34
	3. Interest	<p>Benefit-driven, interest-seeking, interest protection, central government, local government, government departments, enterprises, medical institutions, employees, long-term interests, short-term interests, political interests, economic interests, doctor-patient relations</p> <p>Collusion, appeal, benefit, personal interest, group interest, public interest, source of power</p>	<p>EP1: All parties involved have their own interests, the internal interests are driven by the interests, the procurement is beneficial to them, and how to balance and form synergy;</p> <p>CH2: Self-interest is linked to sustainability, and there is a motivation to satisfy interest demands;</p> <p>C1: Enterprises participate in primary health procurement for the benefit, although there are no profits in some aspects, to meet the needs of patients and countries, but also to ensure their survival;</p> <p>EP5: What is important to bring the specific interests of all parties in the implementation of sustainable procurement, the government often cannot balance</p>	34

			the interests of all parties, and the power mechanism fails.	
	4. Demand-oriented	Real needs, false demand, excessive demand, induced demand, patient needs, medical needs, government-led, government-oriented, demand-oriented, customer-oriented, market-oriented, demand-driven, demand-centric, demand-driven, internal drive, orientation	<p>CH2: The government does not understand the demand very well. Once the demand is found and the procurement content and methods are improved, the results are very different, so the demand feedback is very important;</p> <p>EP3: Some needs need to be carefully analysed, and procurement does not necessarily achieve sustainable goals because of false demand guidance. For example, just take a slow injection, take medicine casually, and reimburse most of it...;</p> <p>DG2: The public health awareness and demand are constantly improving, which has led to the expansion and upgrading of primary health procurement. The main problem is that supply is in short supply;</p> <p>CH6: The top-level design is subject to demand-oriented and will bring strategic changes. For example, by purchasing services to change resource allocation, it has already achieved great results, such as 'guarantee basic, strong grassroots' and 'three medical linkage' reforms.</p>	21

	5. Demand expression	Discovery, expression, request, response, response, feedback, communication, solicitation, channel, path, approach, advice, proposal, complaint, improvement, listening, demand list, demand collection, demand composition	<p>CH1-8: We are close to the client, and many needs and interests are improved through our relevant departments;</p> <p>DG1: Demand discovery mainly follows expert opinions, NPC deputies' proposals, and direct patient needs come from service organisations;</p> <p>NG2: 'Bottom-up' feedback still found some problems and promoted the formation of the solution;</p> <p>EP5: Establish a stable and standardised demand expression mechanism and channel that can facilitate the sharing of information among procurement parties and achieve synergy.</p>	25
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To provide a fair and inclusive supply of health products, reasonable, evidence-based and predictable response measures should be provided as the guidelines of SPP.

Table 6–14 shows that some data focus on the discussion of responsibility and orientation, because they involve public interest promise, public responsibility, empathy, leading direction and power, demand discovery and satisfaction, etc.

First of all, the government's responsibility is commonly emphasised.

In the field of primary health service, the main target of SPP is public goods and quasi-public goods. Respondents generally refer to 'government responsibility'. For example, EP4 states, *'Public health is an area with serious market failure. It is impossible for public health resources to adopt a simple market-oriented approach in the economic field. Market failure generates intervention demand. Government intervention is indispensable in the allocation of public health resources.'* Participants stress that the goal of SPP has dual attributes – it is both an individual need and a public need, with distinct public welfare and strong positive externalities (Liu, 2016). EP3 believes, *'the government-led is the government to protect the basic. Without a country, individuals cannot be guaranteed equal access to basic medical care, choice of basic drugs, reimbursement of basic medical care and insurance. Full commercialisation and full welfare prove unsustainable and ultimately unfair and just.'*

Respondents from government departments also agree with this point, MG6, *'SPP is guided by certain governing concepts and sustainable planning for healthy development in different periods.'*

*For example, "everyone enjoys health" and "fairness and justice" were not paid enough attention in the past. Now the government thinks that this is the responsibility. The formulation of a national health strategy has a great guiding role for SPP.'* As the leading distributor of public resources, and the government can influence citizens' welfare, choices and life prospects by formulating public policies.

Therefore, the vast majority of interviewees believe that the state has the ultimate responsibility to ensure the essential public services have been provided to social citizens. DG1 points out, *'The protection of basic rights and interests will determine the hearts and minds of the people, elected by the people, and have traction on the government. Health projects are related to the quality of life and basic safety of the people, and are most likely to win the hearts and minds of the people. The government realises that this is the top priority of governing the country.'* It is a relatively consistent understanding that the government procurement policy function can be brought into full play and the social welfare can be maximised through the national mechanism (Zhao, 2013).

An interviewee from WHO points out NG1, *'The concept of development based on human rights has been established in the international community and has become a widely recognised development paradigm by governments of various countries. It has also become a leading development policy in the field of health care. Our government is also actively guiding SPP to serve this goal.'*

Secondly, the demand orientation triggered a heated discussion.

Table 6-15 summarises the results of these discussions. Within the 34 people, 24 took the initiative to talk about the 'demand' issue, while the other 10 also expressed their opinions when asking questions concerning the demand issue. The data show that the vast majority of interviewees and scholars in medical institutions pay close attention to the demand, which may be due to the more contact with service objects, more listening to the demands of the public, and a good understanding of the supply and demand of primary health service. Respondents from local and industry authorities also took the initiative to talk about demand frequently, but they pay more attention to the impact of resources and government input on SPP and stress the solution of the contradiction between supply and demand. 21 of the 34 interviewees use similar expressions such as 'demand-oriented', 'demand-centred' or 'demand-driven', emphasising that the goal of SPP is to meet the continuously developing demand, which is not only the purchasing direction but also the enormous internal power of SPP.

**Table 6-15 Interview findings on demand**

Categories (nodes)		Opinion on Demand Positive/Negative		Demand-oriented Yes/No		Example answers
NG	NG1		★		★	The primary health connotation must be clarified. Not all needs are met, what to buy, how to buy?
	NG2		★		★	Purchasing is always based on demand. Now health demand is growing rapidly, and procurement is also developing. It is necessary to take into account the ability of countries and regions for a certain period of time, taking into account the most urgent needs.
	NG3	★		★		Purchasing and purchasing the final service public is mainly demand-driven, so it should be demand-oriented.
	MG1	★			★	Nowadays, the demand for health is getting bigger and bigger, and it has always led to an increase in financial investment. All localities must balance resources and financial resources.
	MG2	★			★	Medical insurance is mainly to protect the basics, which are basic guarantees, false needs and excessive demand to be identified

MG	MG3	★		★		Public health needs are the basic premise, and the demand structure is more complicated, which brings certain difficulties to procurement.
	MG4		★		★	Relevant entities have their own interests, and the needs of procurement entities and undertaking entities should also be considered. They have no motivation and sustainable procurement is difficult to develop.
	MG5	★		★		The procurement platform is demand-oriented, and following the demand, it is conducive to achieving low cost and high efficiency.
	MG6	★		★		Now community medicine is designed and provided according to the basic needs of residents, and the effect is much better than before.
	MG7	★		★		The focus of the assessment is on the satisfaction of the masses and how the satisfaction is a performance assessment indicator.
	MG8		★		★	Some patients are not clear about their own needs, and the medical culture needs to be guided, otherwise it will cause waste of resources.
	DG1		★		★	Some service projects are proposed by the grassroots at the grassroots level. After review and approval by relevant departments, we give money, and the finance is mainly funded.

DG	DG2		★		★	More and more attention to primary health care is the pressure from health and health needs, and the government has greatly improved and improved.
	DG3	★		★		Satisfaction is an important indicator for our assessment and selection of recipients. It is demand-centred and can be disqualified if it cannot meet the demand.
	DG4	★		★		The higher levels of government sometimes do not understand the demand, and procurement is not always demand-oriented.
EP	EP1	★		★		Stakeholders have their own needs, and meeting the needs of patients needs to weigh the interests of all parties
	EP2	★		★		Once we used a small amount of resources to meet the health needs of many people, now more and more investment, satisfaction is not high, it is worth studying.
	EP3	★		★		Now focus on demand discovery and research, and the quality of procurement has also improved. For example, the combination of medical and nursing services and the expansion of social insurance reimbursement drugs
	EP4		★		★	Primary health procurement must be government-led, simply stressing which side's interests and needs are difficult to sustain.

	EP5	★		★		What services are provided and how they are provided must be based on actual needs in order to achieve 'value for money'.
	EP6	★		★		Starting from the demand, it has driven many changes in procurement, such as graded referrals, such as centralised procurement. But the demand is also more complicated, how to find and evaluate?
PH	PH1	★			★	Drug purchases are to be included in the catalogue, and the main government decides. There are still problems in the procurement bidding. Some special medicines and special effects medicines cannot be guaranteed, and no profit enterprises are unwilling to operate.
	PH2	★		★		The hospital is demand-oriented, which also determines its own survival and development. The patient is important to us
	PH3		★		★	Drugs and equipment We consider the need ahead of time, high quality to ensure a high level of service, and then have brand value. But some patients do not need it, and if the medical insurance can pay, it will also be consumed.
CH	CH1	★		★		Demand-oriented, need to accurately understand the needs and have basic capabilities. If the patient needs a drug and service community, it is bound to run to a large hospital.
	CH2	★		★		Now, according to the services provided to patients, it is necessary to equip equipment and medicines, and to purchase services. The procurement effect is very good, but there is still a big gap.

CH3	★		★		Some government procurement and purchase intentions are necessary, but they do not accurately grasp specific needs, such as procurement service software, public service projects.
CH4	★		★		Many decisions are made by the government from top to bottom, not in line with reality, and there should be a bottom-up process.
CH5	★		★		We feedback the patient's needs to the government, and then some policies and methods have been improved, and the results are good. This is sustainable.
CH6	★		★		Community health agencies rely on services to attract residents to meet economic and convenient needs.
CH7	★		★		Service and procurement must be determined from the needs, and the service content does not start from actual needs, which will result in waste of manpower and material resources.
CH8		★		★	Lack of human resources and insufficient staff kinetic energy can not meet the demand. For example, the number of general practitioners and incentive policies are not ideal.

Company	C1		★		★	To become a supplier, it is necessary to comply with relevant national regulations, such as batch, price, and medical insurance. The interests of enterprises cannot be guaranteed, and the satisfaction of needs is also difficult to guarantee.
	C2	★		★		Although the decentralised logistics has put a lot of pressure on us, we still overcome the difficulties, try our best to meet the needs of our customers and satisfy our customers, because we cannot lose this market.
Totals	34	24	10	21	13	

In the interview, it was found that the attitude of government officials was more cautious. Although they agreed on the need to meet the demand, they emphasised the feasibility. It may be because they feel more pressure between limited resources and demand growth, and are confident that the government-led SPP is targeted at demand under the background of limited resources. As NG2 explained, *'Procurement has always been based on demand. Now health demand is proliferating and procurement is also developing. It is necessary to take into account the capacity of the country and region in a certain period time and the most urgent needs.'* MG1 points out more clearly, *'The increasing demand for health has always led to an increase in financial investment, and the government should give consideration to the possibility of resources and financial resources.'*

Table 6-15 data show that 14 people do not initially propose the concept of 'demand orientation'. Among them, 8 people (NG1 NG2 MG1 MG2 MG8 DG1 DG2 EP4) believe that the government's medical procurement has been targeted to specific demand. However, the requirements are complicated. The government should screen and select which demand to be satisfied by the procurement, and the government should coordinate the relationship among stakeholders, because the government has made achievements. For example, MG8, *'Some patients are not clear about their own needs, and the culture of medical treatment also needs guidance, otherwise resources will be wasted.'* These interviewees represent a view that the government is facing significant pressure from the growth and change of primary health service demand, as well as pressure from limited resources and

demand satisfaction. They are worried that over-emphasis on demand will increase blindness and financial pressure.

The data show that some interviewees agree with the need to meet the demand, and they place more emphasis on the interest-based demands of stakeholders. For example, MG4 mentions, *'all relevant entities have their own interests, and the needs of procurement entities and undertaking entities should also be considered. They have no motivation and SPP is challenging to develop.'* Two interviewees from large hospitals (PH1 and PH3) believe that it is difficult to meet the primary health service demand. Producers and receivers hope to obtain their profits. In SPP, such profit-seeking behaviour is likely to cause out of stock due to a low profit margin. Excessive consumption may also happen due to the use of insurance. This should also be in line with the general concerns of eight interviewees from the government and scholars.

In the research, the interviewees were consciously consulted in this aspect, which has continuously expanded and enriched the theme. Table 6-17 provides various opinions of interviewees on demand orientation. After processing and summarising these opinions, Table 6-16 summarises the influence of 11 aspects of demand orientation and government orientation on SPP.

**Table 6-16 Interview findings on government-oriented and demand-oriented**

	Government-oriented	Quotes	Demand-oriented	Quotes
Concept	<p>Treating disease as the centre</p> <p>Government power</p> <p>Independent control</p>	<p>CH6: It is not easy to find and evaluate real needs. The government can't start from its own interests. I have done things, saved money, and my face is light. Actually, I don't aim at public demand. I often buy blind or lagging to find demand;</p> <p>CH2: We have already signed a contract for a family doctor for seven years. There are 110,000 people in the service area. Now we have signed more than 32,600, and the key population has only been maintained to 70%. However, the government has proposed that 90% of the key population should be signed. Departure, wishful thinking. This is almost an impossible indicator;</p>	<p>People oriented</p> <p>Asking for the people</p> <p>Networked governance</p>	<p>EP6: The practice of giving the market to the market without money proves to be unsustainable. Now, according to the primary health needs of the people, it is returning to public welfare and focusing on the needs of the majority of people, especially the poor. In 8 years, health equity can be And from the bottom of the world, to the world advanced;</p> <p>EP5: Government leadership is not a slogan. The community is not only speaking, but participating in decision-making. Demand-oriented diversified governance better balances the interests of all parties and meets the needs.</p>
Role	<p>Ruler</p> <p>Buyers</p> <p>Manager</p>	<p>C2: The local government and the health department are concentrated in power. Enterprises cannot talk to the government on an equal footing. Everything is the government's decision, and it changes</p>	<p>Empowering the people</p> <p>Buyers</p>	<p>MG7 'We use SPP to guide demand, such as purchasing primary health services and basic drug purchases. It is not only rational rehabilitation to avoid excessive medical side effects,</p>

	Supervisor	<p>frequently. We study policies every day, and it should be based on demand;</p> <p>CH5: We are the executive agencies. People, things, things, and procurement activities are government decisions. We implement them. Other stakeholders also have no mechanism to express interests. It is mainly government-oriented.</p>	Participant Servant Supervisor	<p>but also to save resources. This is in the common interest of all parties;</p> <p>DG3: The public has cognitive biases in health and medical care. The awareness of health and disease prevention is different. The needs of ordinary people are different. The government must find out the real needs, and guide and meet the needs from actual needs.</p>
Decision	<p>Government will</p> <p>Government decision</p> <p>Supply and demand misplacement</p>	<p>CH7: We are service producers and providers, but what kind of services are provided by the government, standards are also regulated by the government, some do not start from actual needs, and do not necessarily reflect real needs, so the service process is many Problems such as regular blood pressure, physical examination, and residents are not willing, but we are going to be left out and attacking the enthusiasm of medical staff.</p>	<p>Demand oriented</p> <p>Demand expression</p> <p>Joint decision</p> <p>Creating public value</p>	<p>DG4: The public health awareness and demand are constantly improving, which has led to the expansion and improvement of public health and primary health procurement. The urban floating population is increasing, and a series of measures are taken to implement accessibility and fairness according to these changes;</p> <p>EP1: NPC deputies, CPPCC members' proposals, experts and scholars' opinions have been paid attention to, and many problems have been solved around actual needs, such as 'difficult to see a doctor, expensive to see a doctor', 'strong superior, weak</p>

				at the grassroots level, etc., all of which have been well resolved.
Information	<p>Information asymmetry</p> <p>Lack of two-way communication</p> <p>Use government channels</p>	<p>MG6: Medical institutions have a certain say in procurement. The public expression can only be feedback after the event, as long as the patient has no objection. The contradiction between supply and demand is not sustainable procurement;</p> <p>EP2: Governments, businesses, and medical institutions may all have utilitarian tendencies, induce demand, and seek their own interests, not necessarily from the real needs of users.</p>	<p>Dialogue</p> <p>Demand discovery</p> <p>Multi-channel</p> <p>Integrate information</p>	<p>CH1-7: A lot of demand and interest demands are passed through the relevant departments, and then improved, so the bottom-up demand orientation is necessary;</p> <p>CH2: Our district government conducts community health diagnosis every three years to understand what are the main health and health problems of the people in the region? This ensures that limited financial funds are invested in the highest priority, and demand-oriented procurement is targeted. Very strong.</p>
Funding	Government co-ordination	<p>DG4: CHS institutions are basically funded by the state and belong to the full budgetary institution. Therefore, it is unclear which services belong to their own jobs and which are purchased services. The government purchases services are not all demand-oriented;</p> <p>NG3: At this stage, the economy is still underdeveloped, the amount of primary health insurance is limited, and the level of protection is difficult to increase substantially in the short</p>	Differentiate product financing	<p>EP1 stated: Citizens pay taxes to form finances, and the government must use good money on behalf of citizens. Primary health care is a public good. Responsibility for financial support is needed. The government uses the money on behalf of the public. To achieve value for money, the key is to Centre, targeted to meet.</p>

		term. Due to the reality of scarcity of resources, objectively considering the real needs of the people is also limited.		MG3: Public health products are bought by the government; quasi-public goods are the main countries, share the purchase; private goods are bought by individuals, and the countries with special difficulties are compensated.
Procurement methods	Passive negativity subsidy or purchase	EP4: In the case of limited resources, buy the most effective primary health and health services as much as possible. But there is no prospectiveness and hidden dangers. For example, the large-scale epidemic of SRAS virus infection in 2003 is a lesson.	Strategic procurement  Selective signing incentives to actively purchase	EP3: Now the family doctors sign the contract to emphasise the key population, not the community owners. It is more practical. Starting from the real needs, the effect is different, even if the financial resources are limited. This is the result of listening to the opinions of all parties during the trial phase.
Management	Power centred  Department management fragmentation  Government control	EP5: The selection of service providers does not involve the process of bidding and bidding. Instead, the scope of purchase is limited to one or a few health service organisations, resulting in a decrease in competitors in the CHS purchase;  MG7: Some public health service projects, such as health, civil affairs, the Disabled Persons' Federation, the Women's Federation, the Old Age Commission, and other government departments have come to buy, and all departments have invested, not only the management of the multi-head is very	Needs assessment  Co-led  Joint governance	CH4: Although procurement is government-led, it is necessary to develop a effective strategy based on demand and grasp the actual situation. For example, early detection and early treatment of diseases can prevent some complications in the later period; for example, centralised procurement improves efficiency and lowers prices; The financial burden is also in the interest of the people;

		confusing, but also the financial investment cannot maximise the benefits.		CH7: We can now provide personalised services according to the needs of community residents, which is convenient for the public, and can make full use of resources to improve the health and health of the jurisdiction. Our proposals are based on demand, and the government reviews and gives certain funding.
Process	Ordered from top to bottom, charged from bottom to top	<p>EP6: All aspects of drug procurement are basically the government's decision, but only different government departments. Some drugs are being pressed, there is no profit, pharmaceutical companies quit bidding or bidding to stop supply, and finally lead to the shortage of essential drugs, all parties It is a loser;</p> <p>CH6: National governance mainly adopts a top-down single-governance governance model. Social participation is more passive participation. Failure to mobilise the enthusiasm and creativity of the public and social organisations to participate in sustainable procurement practices cannot be achieved. Demand is at the centre.</p>	Conspiracy from bottom to top, top-down decision	<p>DG4: Now focus on demand discovery. By listening to expert opinions, NPC deputies' proposals, media reports, and grassroots reflecting patient requirements, some issues are brought to the attention of the state. Drug purchasing and service purchase decisions are more targeted and demand-oriented;</p> <p>MG5: The government's purchase of primary health services content and methods are getting closer to the public's needs, and the results are very good. Research and public feedback from the grassroots actual situation is demand-oriented.</p>
Education	Government department's	EP3: The government has insufficient experience in this area. It may be that such talents in the government are also limited.	Popular science	CH5: The government has made policy announcements and interest-induced, let the public 'sickly go to the community, go to the hospital

	<p>own education and training</p> <p>Medical institution education and training</p>	<p>Improving procurement capacity and efficiency is an urgent problem to be solved.</p>	<p>Demand guidance</p> <p>Participant education</p> <p>Policy guidance</p>	<p>with serious illness, and seek medical treatment and appropriate medical care;</p> <p>NG3: Popular knowledge can change public attitudes and behaviours, help the public to recognise their immediate interests and real needs, and use this as a basis to promote preventive medical and public health sustainable procurement.</p>
Regulatory	<p>Government department</p> <p>Lack of government accountability mechanism</p>	<p>CH4: Everyone thinks that many hard indicators of the superiors have been suppressed, but they have not seriously considered how long it will take to complete these projects. For example, face-to-face follow-up, evaluation of a physical examination, establishment of health records, health education guidance, should be done for these durations. Scientific estimates ensure that service supervision is based;</p> <p>CH3: The task content and assessment criteria are formulated by the government. They are not suitable for meeting the needs, and they are not necessarily suitable for service providers. Some are difficult to do. If they fail to pass the inspection, it is inevitable that there will be fraud.</p>	<p>Government-led</p> <p>Social participation</p>	<p>CH1: We have hired some community workers and responsible persons as 'supervisors'. On the one hand, they reflect some of the needs of the people; on the other hand, see the services of our hospitals through the people in the society, see us. The management of the hospital focuses on social effects and impacts. This leads to demand orientation.</p> <p>CH6: Medical services themselves require patient participation. Primary health care is the public's business. It is related to the interests of themselves and specific people. They have the most feelings. They can participate in demand-oriented and services are in place.</p>

<p>Results</p>	<p>Improve efficiency Cut costs Affordable Unsustainable</p>	<p>PH2: There is now a 'drug shortage' due to low drug prices and low profits, manufacturers have taken the initiative to reduce production; because of the shortage of raw materials, resulting in 'monopoly price increases', some pharmaceutical companies have increased production costs and insufficient production capacity. These problems are at stake. There is no demand orientation and it is related to the previous management model.</p>	<p>Fair access Value for money Creating public value Comprehensive, full-cycle health services</p>	<p>CH2: The financial contribution, the supplier does not necessarily provide a good product, because we do not understand the demand, we invite them to design and transform together in the community, to set the actual needs to design, the effect is different;</p> <p>EP6: The medical service supply chain is based on the needs of patients, and promotes the flow of logistics, information flow and capital flow, so that procurement ultimately enables patients to obtain quality, safe and effective medical and health services. Each node only provides satisfactory services to patients. To be a guide to action, we can survive and develop and achieve a win-win situation.</p>
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**Table 6-17 Interview findings on demand-oriented idea**

Composite Themes	Coding Examples
<p>Demand-oriented (21)</p> <p>Demand orientation Demand expression Government-led Inducing demand</p>	<p>C1: In fact, I think if the government wants to understand at the beginning that there is a general plan and a sufficient understanding of the demand, there will be no repetition and trouble of selling out of stock of this drug, and it may still not be able to grasp the demand well.</p> <p>CH1 We carry out some demand-oriented and customer-oriented activities within our own scope, mainly in order to better understand and meet the needs.</p> <p>CH2: The government does not know the demand very well. Once the demand is found and the procurement contents and methods are improved, the results are very different, so the demand feedback is very important.</p> <p>CH3: We take the demand as the centre, understand the demand very well and meet the demand. People slowly understand and accept new ideas and new processes and do it consciously. This mode has internal driving force.</p> <p>CH5: I think we should change some of the original policies and make the purchase of services both economic and demand-oriented.</p> <p>CH6: Top-level design is demand-oriented and will bring about strategic changes. For example, through the purchase of services to change the allocation of resources, great results have been achieved, such as the "basic, strong grassroots" and "three medical linkage" reforms.</p> <p>CH6: Medical and health services provided to the community are not necessarily what residents need. Active service is also a waste. They are willing to cooperate if they understand and solve their needs.</p> <p>CH7: The service and purchase must be determined from the demand. The service content does not start from the actual demand, which will cause waste of manpower and material resources.</p> <p>CH8: Bureaucratic government did not consider much or not enough, neither did it fully consider what kind of public goods and public services the public needs, nor did it fully consider how to provide public goods and public services to better meet public needs.</p> <p>DG1 Whether to effectively meet social needs is any kind of government responsibility or the legitimacy basis of any public policy, thus meeting public needs has become the fundamental value attribution of government responsibility.</p>

	<p>DG2: Public health awareness and demand are constantly improving, which has led to the expansion and upgrading of basic medical procurement. The main problem is that demand exceeds supply.</p> <p>EP1: We have not taken the public as a purchasing participant for a long time, because some of our policies have induced excessive medical treatment and helped them form wrong perceptions.</p> <p>EP2: The real demand orientation is overall health and everyone enjoys health, rather than how much is achieved, how much is gained, and how much is gained. If purchasing turns into spending more, selling more and taking more medicine, it is against sustainability.</p> <p>EP5: Generally speaking, procurement should follow demand, so. We should study the demand very well. If we don't study the demand, he will blindly purchase it.</p> <p>MG3: Public health needs are the basic premise, and the demand structure is relatively complex, which brings certain difficulties to procurement. Demand is definitely the basis for service and procurement, but it also needs analysis and guidance.</p> <p>MG4: Starting from reality becomes demand-oriented, but starting from reality is not real demand. I think it is worth considering what kind of demand it represents.</p> <p>MG5: The drug procurement platform is demand-oriented, following the demand is conducive to achieving low cost and high efficiency ... Demand-oriented, I think, is not to expand the demand, not blindly follow the demand, because people's desires are unlimited.</p> <p>MG7: Demand has always been the direction of government procurement, but there is a lot of demand. How to meet the demand is still a lot of options.</p> <p>MG8: The public's health needs, the needs of curing diseases and preventing diseases are the basic starting point of purchasing. The problem is that the needs are hierarchical and very complicated. What are the real needs and what are the needs that basic medical services should meet</p> <p>NG3: Purchasing and purchasing the final service to the public are mainly demand-driven, so they should be demand-oriented.</p> <p>PH1: The public, their own consciousness and their needs can also serve as a reference for the government and medical institutions. They must consider how to meet the needs. Therefore, the needs themselves are a driving force.</p> <p>PH2: Hospitals are demand-oriented and this also determines their own survival and development. Patients are very important to us.</p>
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The data show some achievements of SPP in implementing demand-oriented procurement, such as EP6, *'Now, according to the basic medical needs of the people, we are returning to public welfare, focusing on the needs of the majority of people, especially the poor.'* In eight years, health equity has reached the fourth from the bottom in the world and has entered the world's advanced stage. These achievements foreshadow that starting from public demand, making the government and the public the co-dominant public service providers may lead public procurement to different levels and ultimately determine the sustainable prospects.

Other evidence is also unambiguous, for example, MG6, *'medical institutions have a certain say in purchasing, and public expression can only be feedback after the event, as long as patients have no objection. The contradiction between supply and demand thus concealed cannot be SPP.'* A chief of a large hospital pointed out pointedly that PH2, *'There is now a shortage of medicines.'* On the one hand, government medicines are priced too low, profits are too thin, and manufacturers take the initiative to reduce production. On the other hand, due to the monopoly of raw material medicine resources, resulting in *'monopoly price increases'*, some pharmaceutical enterprises have increased production costs and insufficient production capacity. The basis of these problems lies in the lack of demand orientation, which is related to the previous management mode. These pieces of evidence show that the actual effect of government orientation is really not ideal.

With the deepening of the interview, a large number of related concepts have been mentioned, and there are also some other viewpoints worth paying attention to. NG1, *'There is a lot of work to*

*do in screening for two cancers, breast cancer and cervical cancer. In two years' time, we will have to check for lung cancer and gastric cancer. What should we do? I think everything should be checked from the perspective of human life rights, isn't it? That should be much more, is it all done? Do we want to look back and see if we are worth it?' Some comments related to this involve 'real demand', 'false demand', 'cognitive difference and 'induced demand'. The results of the empirical study are consistent with some theoretical studies. False demand may be due to government inducement, medical institution inducement, public cognition and cultural deviation of medical treatment.*

*Some scholars put forward EP2, 'Some needs need to be carefully analysed. Procurement may not reach the sustainable goal, because the pursuit of certain interests will lead to false demands. For example, intravenous injection and antibiotics are taken casually, but most of them are reimbursed, which leads to excessive demand ...' Some interviewees from the competent departments and service departments proposed MG5, NG1 and CH3-4, 'There are some cognitive biases among procurement-related subjects, such as family doctors are required to come home for service when signing contracts; residents can choose any medical institution for treatment freely; better drugs and medical service fees are included in the scope of medical insurance reimbursement. These tendencies to pursue non-public interests are not sustainable for SPP and also cause a waste of resources.'* These data show that SPP serves the basic health needs of the public, and needs-oriented should be bottom-line, standard and practical. The SPP in primary health service should be based on a full understanding of needs, and

standards should be established. Some interviewees have also recognised this attitude.

Third, the concept of 'demand expression'. Compared with the discussion on 'whether the government is responsible' and the debate on 'how the government is responsible' is more heated. Some interviewees EP6 pointed out, *'Government-led should not be government-led, "leading" is a management issue, and "orientation" is an end issue. On what basis, should the orientation be based, and the source of government will be the real demand.'* Respondents from primary health care institutions agreed in particular that CH8, *'what role the government plays in public service and management and what goals it pursues are key to the results. The government is neither omnipotent nor very professional.'*

From the interview data, it has been found that the concept of 'demand expression' is frequently mentioned (see Table 6-16), and many data in Table 6-14 and Table 6-17 reflect this concept. It may be because most interviewees think that SPP should pay attention to the needs. However, the medical needs have apparent information asymmetry, and it is not easy to find authentic needs due to the lack of a precise and stable demand expression mechanism. A government official admits MG2, *'Health insurance is mainly basic, which is basic. False demand and excessive demand need to be screened. It requires listening to opinions from all sides.'* DG3 points out, *'At present, there is no mature mechanism and no fixed channel to understand the demand. With a large population and great differences, it is not easy to collect information and screen.'* CH6 says, *'The medical and health services we provide to the public are not necessarily what the residents need. Active*

*services are also a waste. They are willing to cooperate to understand and solve their needs.'* Data research shows that although the government is continuously trying to meet the needs of the people through public services, the countermeasures they take are not always directed to sustainable development. The discussion on demand expression and public participation will continue in the next topic, as it involves the scope of public governance.

Fourth, interest-driven motivations. Statistics show that when 34 interviewees talk about 'demand', they all talk about 'interests' (Table 6-14), and 'interests' has become a relatively high-frequency word.

SPP is essentially an interest-driven activity. SPP participants joined or refused to join this process because these activities are in line with their interests and meet their own needs in some aspects. Just as CH2, *'Self-interest is linked to sustainability, there is an incentive to satisfy interest demands.'* (Table 6-14) Pursuing interests is a fundamental purpose.

During the interview, it has found that interest-based issues were rarely mentioned at the beginning. With the deepening of the interview and reaching a more harmonious atmosphere, more and more 'sensitive' topics hidden behind the interview were discovered, and most of these topics involved the 'interests' of stakeholders. For example, C1 stresses, *'We very much hope to get the basic medical care market, but if we lose money, we can't do it.'* EP3 points out, *'Which areas of public procurement should the primary government use, how to allocate funds, and are closely*

*linked with the performance view.*' It is highly consistent with previous literature research, and the thinking on this issue has good support for this research. Because the relationship between gain and loss of interests has a significant impact on people's survival and development, the interest-driven relationship is the most important one in social relations and the core of social relations.

Table 6–14 data show that respondents talked about different stakeholders including political leaders, purchasers, the public, regulatory agencies and suppliers, and they often have conflicting goals and requirements (Hazlett et al., 2013). They must be aware of and meet the expectations of their stakeholders (Roman, 2017). For example, C1 explains, *'Enterprises participate in basic medical procurement for the benefit, although there is no profit in some aspects, to meet the needs of patients and the country, but also to ensure their survival.'*

People's pursuit of interests makes people show a positive attitude and great enthusiasm in their activities, also makes people have firm will, and reflects the vigorous vitality and active creativity of the main body. As CH6 gives an example, *'basic medical care is a matter for the general public. it is related to the interests of oneself and specific groups of people. They have the most feelings. only when they participate can they be demand-oriented and serve in place.'* A relatively consistent point of view is that interests promote the participation of procurement-related subjects in SPP practice activities through the internal driving force that stimulates and causes them to move forward. Interest motive force is the endogenous source motive force to promote the development of SPP. The discovery and in-depth study of this internal factor will be

of exceptional value because interests affect the initiative and creativity of the subject.

#### **6.2.6. Strategy and governance factors**

The meaning of the sixth theme is to use strategy and good governance to drive the development of SPP forward-looking and together. Statistics show that respondents pay more attention to the driving factors under this topic. The motivation factors such as strategy, strategic procurement and governance proposed by literature research under this theme have been confirmed. Interview data also indicate new concepts such as innovation, cooperation and participation. The characteristic feature of these new concepts is that they emphasise the joint efforts of social forces other than the government (see Table 6-18).

**Table 6-18 Theme 6 -- Strategy and governance motivation**

Major Themes	Composite Themes	Composite Codes	Coding Examples	Counts
Strategy and governance	Strategy and innovation	Planning, strategy, layout, long-term, overall, comprehensive, system, reform, health system, progress, new means, new technology, Internet, online procurement, organisational innovation, institutional innovation, payment innovation, management innovation	<p>NG2: The country promotes sustainable procurement through linkages between health care, health care and medicine;</p> <p>CH1-3: Community health services are extended from patients to all populations; service cores are shifting from treatment to health management; new health services and health care personalised service package purchases are a sustainable strategic layout;</p> <p>MG5: The Sunshine Procurement Platform is innovative, improving efficiency, maintaining transparency and achieving economies of scale;</p> <p>C1: Sustainable procurement needs to take into account the interests of all parties, and the payment method has a great impact on the interests of enterprises and patients. Innovative payment methods are necessary.</p>	28
	Strategic procurement	Centralised procurement, selective purchase, contract service, service package, public health project, undertaking entity, principal	<p>NG1: What to buy and how to buy is a strategy. It is a primary health purchase. What are the problems to be solved? If the money is effective, it will be sustainable;</p>	22

		agent, contract, contract service, forward-looking, partnership, supplier, bidding, competition, medical insurance fund, medical insurance payment, patient participation Public satisfaction, social harmony, health for all	<p>MG4: Now pay attention to this issue, pay more attention to the overall effect and create value in terms of procurement content and methods;</p> <p>PH1: There is a lack of regulations and coordination mechanisms among government departments, which leads to fragmentation of management, resulting in problem transfer, conflict of objectives, individual governance, and reduced citizen satisfaction.</p>	
	Governance and cooperation	Negotiation, decision-making, political participation, regulation, negotiation, cooperation, top-down, bottom-up, democracy, decision-making, department, fragmentation, UN, WHO, international agreement, international public opinion, infectious disease flow, interaction, good governance	<p>NG3: Primary health procurement involves international sensitive issues such as human rights and poverty eradication;</p> <p>NG1: The guidance provided by the World Health Organisation in providing policies and standards is highly visible;</p> <p>MG6: Public procurement should be a complex process involving multiple entities. It turns out that traditional top-down national regulation methods have drawbacks. The broad participation of multiple entities and the inter-subjects' collaboration is a trend.</p>	28
	Participation	Public, social organisations, community medical institutions, patients, enterprises, CPPCC representatives, NPC deputies, CPPCC members, third-party institutions, non-	<p>CH4-8: Public appeals reflect their urgent demands, and our feedback will affect purchasing decisions;</p> <p>EP1: The starting point and the foothold of demand-oriented primary health procurement are to meet the health needs of residents. This requires community residents to participate, express their own interests</p>	32

		medical institutions, discussions, forums, suggestions, suggestions, feedback, questions, consultations, proposals, assessments	and create good conditions for demand-oriented mode.	
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Data analysis shows that among the three driving factors mentioned in the literature, the 'strategic' driving factor is the one with the highest recognition. Although the core content of this research is 'procurement', the interviewees talk more about 'strategy' than 'strategic procurement'. This is related to the 'Healthy China 2030' planning outline formulated by the sample regional governments in 2016 and the 'Implementation of Healthy China Strategy'. The strategy was put forward in 2017 as the ruling party's program and the national priority development strategy, people's health is given priority in social life development. Health objectives are prioritised and highlighted in economic and social development accordingly. The financial investment will ensure health needs, and safeguard people's health rights and interests (Li & Fan, 2017). These political ideologies have been widely spread and listed in the implementation schedule, and are forming a huge impetus for SPP. It also verifies the conclusion in 6.2.1 regarding the promotion effect of 'political claims' and 'media publicity' on SPP. More participants understood 'strategy' as 'the general plan of governing the country' and regarded it as an important component of public governance. Some people did not mention 'strategy', but used words with relevant meanings, such as 'global', 'long-term' and 'system' (see Table 6-18).

Some interviewees believe that strategy is a continuation of politics and has a definite political purpose. Most of the interviewees hold administrative positions in the organisation and attach importance to political orientation, so they have a better overall view. As MG3 said, *'SPP is related to basic human rights and involves the realisation of a series of government policy objectives. Such as how*

*to ensure availability and affordability, how to actively support domestic enterprises, how to develop and utilise essential drugs including generic drugs, etc., which need the support of policies and laws.'* CH2 says, *'the upper strata show that we are looking forward to improving the health legal system, coordinating and speeding up the formulation of the Basic Health Care and Health Promotion Law, and ruling the country by law.'* CH3-4, *'Health education and health management for the elderly have been incorporated into the national basic public health service package, financed by the government and provided free of charge to urban and rural residents. It is the government's long-term design and institutional arrangement. With the introduction of the strategy, basic medical procurement will change accordingly.'* Other interviewees expressed the same feeling.

**Table 6-19 Interview findings on innovation**

Composite Themes	Coding Examples
<p>Innovation</p> <p>Strategic thinking</p> <p>Strategic choice</p> <p>Value proposition</p> <p>innovative development</p>	<p>C1: The realisation of sustainable procurement needs to take into account the interests of all parties, and the payment method has great influence on the interests of enterprises and patients. It is necessary to innovate payment methods.</p> <p>CH1 In recent years, health system construction, basic medical procurement reform, new technologies, new means, Internet, online procurement and utilization are also very effective.</p> <p>CH2: It is conducive to sustainable development to use financial investment to develop new means and technologies to realise organisational innovation, payment innovation and management innovation.</p> <p>CH5: Now is a multimedia era, and procurement innovation can be carried out through Internet, big data and Internet of Things. At the same time, the new media has also become a tool for popular science propaganda, medical consultation and interactive communication.</p> <p>CH6: Payment involves the distribution of expenses, and innovation in payment methods can facilitate medical treatment and reduce the burden on enterprises.</p> <p>CH7: Innovation and development also require more creation of new tools, new methods, advanced big data, communication technologies, and networks, which can all become power sources for improving efficiency.</p> <p>CH8: If we want to promote traditional Chinese medicine, we need a lot of active policy guarantees and continuous innovation.</p>

Under the DG1 active purchase mode, some innovations are needed. The design of the payment system should be systematic and integrated. Financial incentives should also consider the behavioural incentives for medical personnel, including the salary system, to improve the incentive efficiency.

DG2' s strategic considerations are not very comprehensive. Including innovative development in centralised procurement, strategic purchase, medical insurance payment and contract signing services, some practices still need to be improved.

DG3 With the increasing number of drugs docking with 3A hospitals, procurement management needs innovation. We design a combination of virtual pharmacies and prescription assignment platforms. Some drug community health service centres do not need to purchase drugs. While doctors write prescriptions, they notify the distributors through intelligent networks, and the distributors send them to the community to facilitate patients' access.

EP1: I think now that there is a sunshine procurement platform, it is convenient and affordable, and it is a very good innovative procurement method, but it is not necessarily perfect ... He may also have rent-seeking behaviour.

EP5: Now we pay more attention to the combination of drug purchase, equipment purchase, service purchase and insurance purchase in the process of basic medical procurement. We refer to the linkage of three medical services for short. It is an innovation to the previous reforms. Different purchasing methods can solve different problems respectively. It can supplement both the buyer and the supplier.

MG1: At present, the government does not seem to have a sound approach to demand research, nor are there many modern methods and innovative ways.

MG2: Emphasise the sustainable "value for money" as the system goal, and extend the procurement process to the front and back ends. While ensuring the transparency and standardization of the procurement process,

	<p>it also gives it certain flexibility. The procurement means are constantly innovated and electronic, standardised and networked are introduced, thus making the procurement more efficient.</p> <p>MG4: Some new means, new technologies and the Internet can promote organisational innovation, system innovation, payment innovation and management innovation. It is mainly the overall design of the local government.</p> <p>MG8: I think Beijing is very smart to put the procurement of all provinces in the country on the platform. Through innovation, it has used a relatively simple way to solve this relatively complicated problem.</p> <p>MG5: Sunlight Procurement Platform is innovative, improves efficiency, maintains transparency and forms scale benefits;</p> <p>NG2: The state has promoted sustainable procurement from the linkage reform of medical care, medical insurance and medicine.</p>
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Data research has found a new concept in 'strategy' discussion, with more than 50% of respondents actively talking about the concept of 'innovation'. Table 6-19 provides sufficient evidence. Most interviewees regard innovation as part of their strategy, and they believe that the ultimate realisation of SPP requires continuous innovation to face the challenges and problems that arise. MG5, *'SPP has achieved good results in many aspects of innovation. For example, the sunshine procurement platform is innovative, improving efficiency, maintaining transparency and creating economies of scale.'* MG2, *'Innovation of insurance system and innovation of payment methods have improved the sustainable effect of purchasing.'* Some interviewees in community health institutions stress CH5, *'Gradual referral and promotion of primary service mode gradually change from intermittent service to continuous and responsible health management, with both service innovation and system innovation, with obvious sustainable effect.'* The interviewee talked about concept innovation, system innovation, knowledge innovation and so on. It is believed that the future of SPP lies in the formation of new values, new strategies, new systems and new procurement methods. This conclusion confirms the conclusion of theme 4 of the conceptual framework.

Only one-third of the interviewees mentioned 'strategic purchasing' voluntarily. It may be because most of the interviewees are far away from the fields of public management and enterprise management, and some of them are not directly involved in the procurement business and are not familiar with 'strategic procurement'. It may also be that the SPP practice in this field is indeed just beginning. Most of the interviewees in the medical field

agree with the WHO's advocacy of implementing 'strategic purchase' (WHO, 2000) and believe that strategic purchase drives SPP. MG4 says, *'We have begun to attach importance to this issue and pay more attention to the overall effect in terms of procurement contents and methods, with initial results.'* CH1-3 also agree, *'At present, the target of community health service has expanded from patients to all people; The core of service changed from curing diseases to health management. It is no longer limited to the passive service of medical institutions, but to the active service of families and communities where people live. Therefore, the purchase of health services and personalised service packages for health care has increased a lot.'*

The data research found that some criticism about the poor implementation of SPP also focused on strategic procurement. MG5, *'The function of the basic medical and health procurement policy has not been fully developed, and it is more inclined to solve the current problems. For example, if there is an epidemic of infectious diseases, funds will be allocated to purchase public health products; If it is found that no one has done primary medical treatment, it will allocate funds to purchase primary medical treatment.'* Some interviewees believe that strategic procurement needs some basis and conditions. For example, DG3 points out, *'The government purchases public health services because there are enough qualified public service agencies and suppliers. It is not easy to form such a situation.'* Other interviewees expressed the same feeling. For example, EP4, *'Community health institutions are units with full state financial allocations. It is necessary to improve the treatment of grass-roots staff continuously. How to deal with the*

*relationship, as well as a series of issues related to cost-effective, price-fixing and selection of services, there are no supporting policies and regulations.'* PH2, *'An obvious problem is that strategic procurement needs organisational guarantee. The lack of regulations and coordination mechanisms among government departments has led to a fragmentation of management, resulting in problem transfer, conflict of objectives, fragmentation and reduction of citizens' satisfaction.'*

These opinions, in fact, reflect the SPP obstacles caused by the failure of purchasing from a strategic perspective. Participants believe that the government should provide legal regulations and strategies for the implementation of SPP in terms of what to purchase, how to purchase and how to select service agencies and provide resources and management support for the strategic synchronisation of this process (Gormly, 2014). This conclusion confirms the importance of themes 1 and 3 of the conceptual framework, i.e. political and organisational motivation.

Consistent with the findings of literature studies, many interviewees have linked SPP with the improvement of public governance and good governance. It is believed that good governance is the internal motivation for the government to innovate itself and lead the development of SPP. At the same time, it is also believed that SPP is a way to achieve public governance goals and create public value (Keulemans et al., 2017), while administrative fragmentation is considered as resistance to SPP at this stage. PH3 stated, *'The Food and Drug Administration is responsible for a hearing which pharmaceutical companies and drugs can be included in the procurement scope, deciding whether they should be included in the*

*medical insurance drug users' social service bureau. The national basic drugs catalogue is audited by the Health Bureau and the basic drug pricing development and reform commission, etc. Many questions in decision making need to address. For example, whether certain drugs can be included in the procurement scope, whether they can be included in the medical insurance catalogue, whether they can be included in the national basic drugs catalogue, and whether they can be shortlisted in the local bidding. The procurement involves many departments, the policies and regulations with different basis.'*

Strategy and governance influence the establishment of a long-term mechanism for SPP, which is especially emphasised by interviewees. Table 6-20 summarises the opinions of the interviewees in this respect. These opinions expose some public management problems, which are considered as the resistance factors of SPP. They come from the problems of the government's own system and governance. Most interviewees talked about the urgency and importance of institutional innovation drive for SPP. All the interviewees expressed similar opinions. Without close cooperation between departments, various policies have focused on public health concerns. Effective division of labour and cooperation will not achieve sustainable goals. There is an urgent need to improve the mode of cooperation between the health sector and other sectors. This centralised expression reflects the reality that China's current administration is fragmented and coordination between departments is challenging.

**Table 6-20 Interview findings on governance and cooperation**

Composite Themes	Coding Examples
<p style="text-align: center;"><b>Governance and cooperation</b> 28</p> <p>Interactive negotiation From bottom to top Fragmentation Global governance</p>	<p>C2: At present, there are too many departments, the work is too complicated and the management is fragmented. We are often helpless.</p> <p>CH1 community medical institutions need to be institutionalised to participate in the deliberation and administration of government affairs, so you can really determine the purchase according to the needs. Therefore, I think these two are very important links.</p> <p>CH2: There are too many government controls in this system and the participation of other procurement stakeholders is limited. From top to bottom, from bottom to top, the public, social organisations, community medical institutions, third-party institutions, patients and enterprises have not established mechanisms for interactive communication, interactive cooperation, political participation and democratic decision-making, which is not conducive to sustainable development.</p> <p>CH3: It turns out that many policies will not be made by you. Now many discussions will call for us to discuss, hold discussions, consult, make suggestions, give feedback, make suggestions and do it as soon as possible. I think there is still some improvement here.</p> <p>CH4: Many decisions are made by the government from top to bottom, which is not in line with reality. There should be a process from bottom to top. In a word, this system will require more people to participate in the future. I think it is still a direction.</p>

CH5: We should innovate according to our national conditions and regional characteristics and construct suitable purchasing and service modes.

CH6: At present, national governance mainly adopts a top-down single-subject governance mode, and social participation is more passive participation. It failed to mobilise the enthusiasm and creativity of the public and social organisations to participate in SPP practice.

CH7: Communication between departments, whether their information is symmetrical or not. The system is not very smooth. It may cause everyone to be busy and doing it. However, it may not be efficient or restrict each other, resulting in some resistance.

CH8: The government should listen more to the public's voice, let all parties involved participate in the opinions, and truly understand the needs.

DG1 social governance requires all aspects of society to join in, and then, unlike the traditional everything is from top to bottom, but from top to bottom and bottom to top combination, can also be in parallel network communication process to pool their efforts, democratic participation.

The DG2 national system cannot be copied easily. Sustainable development must conform to the national conditions.

DG3 departments are divided into different departments, which may lead to difficult coordination after the separation of functions. Policies are also from different angles.

DG4 procurement participants of different roles, in the process of their power generation, will they form a joint force and whether his direction is the same, so I think this directional orientation is still a very important issue.

EP1: Under the existing management system, there are two problems to be solved urgently: one is the fragmentation of government administration, which may often lead to inefficiency and coordination difficulties;

The other is social participation. Deputies to the National People's Congress, members of the Chinese People's Political Consultative Conference, experts and scholars' opinions have been taken seriously, and many problems have been solved around actual needs ...

EP2: Executors, they also have their own interests. Whether this interest can be maintained or not will also have a great impact on their behaviour ... The crux of some problems lies in the lack of demand orientation, which is related to the previous management model that did not deal well with the needs of stakeholders.

EP5: The government needs to establish new governance concepts, create value with enterprises, the public and stakeholders and meet their own needs. The participation of all parties is not only an important factor of public satisfaction, but also the core of public value creation.

MG1: The understanding of publicity cannot be limited to the government, which is one of many important departments that embody publicity. Modern society meets the increasing public service demand through multi-centre and governance. This process is the unification of public service reproduction and public reproduction with multi-subject participation. The key lies in the construction of cooperation mechanism.

MG3: What is the problem now? The organisation of the government itself is rather complicated, such as the finance department, the health department, the insurance department, the drug administration department and the Development and Reform Commission. Sometimes the communication, cooperation and cooperation between them are not smooth.

MG4: Therefore, in order to achieve the goal of sustainable health development, we must work together with departments other than health and adopt the participation and promotion of "the whole government" and "the whole society".

MG5: It means that integrated governance will be more efficient and all parties involved can fully communicate and coordinate.

MG6: Solving the fragmentation problem of government department management can greatly provide procurement efficiency and problems faced by procurement. It is difficult for one department to coordinate and solve them.

MG7: Interaction and good governance are gradually emphasised. It can give the public, social organisations, community medical institutions, patients and enterprises the opportunity to participate in the democratic negotiation of basic medical procurement. Through discussions, discussions and suggestions, they can participate in the deliberation and administration of state affairs and make joint decisions from top to bottom and from bottom to top. Including cooperation with UN, WHO and international organisations, participation in international agreements and global governance.

MG8: If we can mobilise more social forces to participate in this undertaking and pool their efforts, especially the change and promotion of public awareness, there will be a better situation.

NG1: There are more than ten or twenty government agencies. Many ministries and commissions issued a document. In the future, there is a need for a better integration between these institutions.

NG2: "Bottom-up" feedback still found some problems and promoted the formation of solutions.

NG3: The purchase of services and the design of service packages should be based on the specific needs of the local public, the opinions of community residents and service agencies should be well listened to, and everyone should be involved in the design, so as to realise this matter. The wide participation of multiple subjects and the cooperative cooperation among them are a trend.

PH1: The country's medical management system has not yet been completely straightened out. It is now under reform ... Procurement is still a matter of good research. Participants have the right to speak. Decisions should be based on sufficient evidence.

	PH2: WHO stressed that the most important thing is to empower people and communities to participate. Strengthen governance and accountability.
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Compared with the conclusion of literature research, the data show that in the discussion of 'governance' becoming a hot topic, a new concept closely related to this emerged – 'participation'. An expert EP3 points out, *'The starting point and end point of demand-oriented SPP are to meet the health needs of residents. It requires community residents to participate in it, express their interest demands, and create good conditions for the demand-oriented mode.'*

The analysis of the research data shows (Table 6-18) that 32 interviewees all mentioned the issue of 'participation'. However, they have different opinions on the analysis of 'participation' and the degree of participation. According to textual statistics, the interviewees focused on the question of 'participation' in the process of answering questions 20 and 21 (see Appendix 2), making this topic prominent. Table 6-21 data synthesises these viewpoints. CH6, *'National governance mainly adopts a top-down single-subject governance mode, and social participation is more passive participation. It failed to mobilise the enthusiasm and creativity of the public and social organisations to participate in SPP practice.'* C1, *'At present, the basic government decides everything, and it is difficult for local governments and different government departments to agree. Procurement is restricted by many departments and is inefficient.'* This kind of view focuses on the governance mode of the government with a single subject. It holds that the lack of social participation and interactive communication, and the decision-making of a single subject are not conducive to reflecting the needs or mobilising the enthusiasm of social forces, and therefore are not conducive to the development of SPP.'

**Table 6-21 Interview findings on participation**

Composite Themes	Coding Examples
<p>Participation 32</p> <p>decision to participate</p> <p>Social participation</p> <p>Interactive communication</p>	<p>NG: Public procurement should be a complicated process involving multiple subjects. Facts have proved that the traditional top-down state regulation method has disadvantages. The wide participation of multiple subjects and the cooperative cooperation among them are a trend.</p> <p>NG2: The central government, local governments, medical institutions and enterprises should actively participate, otherwise it is difficult to integrate forces.</p> <p>NG3: It is necessary to listen to the opinions of community residents and service organisations and let everyone participate in the design so as to make this matter real.</p> <p>MG1: This process is the unification of public services and reproduction of public products with multi-agent participation. The key lies in the construction of cooperation mechanism.</p> <p>MG2: The insurance premium is paid by all parties, but safeguarding interests is not yet the participation of all parties. All parties should have awareness and ways of participation.</p> <p>MG3: It is definitely not sustainable to rely on the state alone and other stakeholders do not participate, do not work hard, or transfer difficulties to the state.</p> <p>MG4: It is necessary to work together with departments other than health and take "the whole government" and "the whole society" to participate in the promotion.</p> <p>MG5: It means that integrated governance will be more efficient and all parties involved can fully communicate and coordinate.</p>

MG6: Public Participation Helps to Understand Demand and Monitor Purchase Effect;

MG7: We do not have enough help and excavation for social forces. The concept and participation of the public are in urgent need of improvement.

MG8: If we can mobilise more social forces to participate in this undertaking and pool their efforts, especially the change and promotion of public awareness, there will be a better situation.

DG1: The most fundamental thing is to involve everyone and let the participants realise the impact of sustainable development on their own vital interests.

DG2: Many departments, organisations and people of different natures are involved and play different roles.

DG3: The key is to integrate the potential participants of sustainable public procurement and give full play to their integration functions, instead of fighting alone.

DG4: Participation will bring initiative and creativity.

CH1: More relevant social forces are involved and may have more motivation.

CH2: Consciously digging the power source of participants can help us find better power.

CH3: Community medical institutions have the momentum of innovation and development as well as wisdom because they are close to demand. We should give more play to its positive role and let them participate more in government decision-making.

CH4-8: Public Appeal Reflects Their Urgent Demands, Our Feedback Will Affect Purchasing Decision;

CH5: Each participant, from their own perspective ... should strengthen the work of forming consensus on the participants.

CH6: Basic medical care is a matter for the general public. It is related to the interests of themselves and specific groups. They have the most feelings. Only when they participate can they be demand-oriented and serve in place.

	<p>PH1: Procurement is still a matter of good research. Participants have the right to speak. Decisions should be based on sufficient evidence.</p> <p>PH2: The public is involved, they can express their needs and find them better.</p> <p>EP1: There are obvious deficiencies in social participation in this field, such as experts and scholars and the public. There are also enterprises that can participate together.</p> <p>EP2: Our experts and scholars are basically serving as advisors now. Can't participate in the decision-making, make our decision often lack of knowledge support.</p> <p>EP3: The overall quality and ability of procurement participants do not meet the needs of future development.</p> <p>EP4: To form interaction between the service provider and the service recipient, patients and community medical service institutions should be involved in the basic medical procurement, so as to receive the actual effect.</p> <p>EP5: Human beings are a very complicated structure. Those who participate in it can either pull or hinder sustainability.</p> <p>EP6: Participation is also the greatest force. Now it seems to ignore social forces outside the government.</p>
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## **6.3 Discussion**

### **6.3.1. Theme 1 – Political motivation**

Policies and laws have been regarded as a way for the government to force SPP. At present, the United Nations, WHO, EU and other international organisations and governments are increasing the formulation and implementation of SPP-related policies and regulations. This trend reflects the degree of preference for policies and regulations as a driving factor. Judging from the practice of various countries in the world, the countries that have early and successfully implemented SPP are all related to the establishment of clear and relatively perfect SPP laws (Roman, 2017 and Sayed et al., 2018). Different from the situation in developed countries in this respect, the lack of exclusive legislation in case area of this research has become a vital obstacle commonly considered by respondents as SPP.

On a deeper level, the reasons for this situation are, on the one hand, that the practice in the case area was carried out relatively late and was undergoing changes, so that it is under less-stable legislative conditions. As explained by EP6, *'Because the medical and health reform has changed a lot over the years, many things are not stable and mature, bringing some challenges to legislation. Perhaps it is policy and guidance to deal more effectively with changing situations.'* On the other hand, the formation of this situation due to historical values formation and the influence of the statecraft in different periods. It proves that the external driving force of SPP still depends on the internal driving factors such as the value preference of political power executor.

In the absence of sufficient legal constraints, policy guidance and constraints are particularly critical. Policies are even considered to be more efficient SPP promotion tools than laws. The data not only shows the esteem for policy consistency, but also verify the motivation role of policy. In the SPP process, on the one hand, the policy provides a targeted governance plan to quickly deal with sustainable problems, indicating the government's attitude and better responding to public demands. On the other hand, it provides strong support for the practical exploration of SPP. The social cost of policy change is relatively low, and it is conducive to resolving social conflicts and promoting social harmony. Therefore, the research shows that the policy can become the primary tool for sustainable guidance and governance of SPP in a particular stage.

The research found that the promotion of SPP by politics is not only the promotion of traditional laws and policies, 'political claims' and related 'performance assessment' can change the decision-making and policy implementation behaviour of officials, thus promoting the improvement of SPP. The government interviewees have supported this view. NG2 explains, *'The environmental protection and health strategy has been written into the ruling party's program document and has become a basic national policy and a national strategy that must be implemented.'* Public policy is the embodiment of the government's will, the principles and guidelines adopted to solve specific problems, as well as the protection of rights and the distribution of values. Health care and medical services are the embodiment of political philosophy. The choices made, the systems established and the level of funding provided depend on the social and political values that underpin them (Cockerham, 2014).

The specific national conditions in the empirical study area are that the country places great emphasis on political leadership. The officials in the decision-making and executive departments of the SPP all have the background of ruling party members. They must maintain a high degree of consistency with the party. EP4 points out, *'Sustainable development and the implementation of a Healthy China strategy have all become part of the basic national policy and national strategy and become the administrative tasks of government officials. Implementation and performance have also become the governing objectives and performance evaluation content of governments at all levels.'* Public procurement in related fields has set specific binding targets for governments at all levels. It has continuously improved the proportion of environmental performance and relevant goals of livelihood projects in the assessment, such as the introduction of 'one vote no' and other strict reward and punishment measures (Schreifels, 2012). These rewards and punishments can bring significant political and economic benefits to officials. Therefore, 'political claims' and related 'performance assessment' can change the decision-making and policy implementation behaviour of officials, thus promoting the improvement of SPP.

The world has entered the era of multimedia. Media communication has not only become the dominant mode of cultural existence in modern society but also plays an important social function. The media can have apparent influence on people's psychological characteristics, behaviour structure, attitude tendency and other aspects, continually changing people's way of thinking and life style. It provides a series of guiding social public values for the

development and progress of the whole society, making the contemporary people's lifestyle and content have undergone significant changes. Not only that, the media can also play the role of supervision by public opinion. Therefore, the data show that 'media exposure' and 'performance assessment' are the essential driving factors of SPP.

To sum up, politically related drivers are indeed important drivers of sustainable medical procurement development. The inspiration of the discovery to the research is that although political power has the strong external impetus of SPP, it cannot ignore the difference of subjective will of different politicians, legislators and other subjects who control political tools. Ultimately, the political drive of SPP is determined by people. It can also be confirmed by the frequent keywords throughout the interviews to such driving factors as 'political opinions', 'media exposure' and 'performance appraisal'. It makes it necessary to discuss the value issue in the discussion of social policies (Tang, 2012). The value orientation of the subject may be different; that is, the basic positions, attitudes, concepts and beliefs of government decision makers and actors may be different. Besides, there are deeper motives behind them, which may be related to the needs they want to meet and the satisfaction of their own needs. Different ideologies and governing concepts emphasise different social policies and governing strategies, and support different policies and system propositions. Factors such as concepts, basis and capabilities held by local and departmental governments are also of special concern. Lack of supportive legislative authorisation or incentives may hinder the adoption and

promotion of SPP (Gormly, 2014; Hasselbalch et al., 2014; Smith and Terman, 2016).

### **6.3.2. Theme 2 – Economic motivation**

This research has confirmed a conclusion of previous studies that the level of economic development and national income have significant driving effects on SPP (see Table 6-5). Different from previous studies, this research focuses on the primary health service field. SPP in this field is special and has been less studied for a long time. SPP in the field of primary health service bears the characteristic of accessibility of primary health services. On the one hand, because of its nature of public goods, it must rely on government financial input to a large extent. The government can decide what to buy and how to buy, thus directly promoting SPP. On the other hand, for individual residents in a country or region, the risk of primary health service is not something individuals can resist. Government intervention can meet the demand while guiding the demand, such as access to drugs or medical services and the way to obtain them.

Health care is one of the largest spending areas in public procurement (Walker, 2015). Government financial expenditure is the source of health funds. In developed countries, medical procurement is one of the three financial expenditure items with the highest proportion of government procurement (Zhang et al., 2018), which reflects the status of health in the social economy. Therefore, the level of economic development not only determines the level of national and individual health expenditure, but also

determines the demand for health care and the relationship between supply and demand. Strengthening financial input can promote SPP because the scale of budget expenditure determines the number of resources available for health.

Facts have proved that the order of satisfaction of most countries with health service systems is positively related to the amount of government health expenditure per capita. The availability of health service financing is conducive to improving the poverty-benefit distribution (Burger et al., 2012; Wagstaff et al., 2014). The scale of SPP and the degree of its function are bound to be restricted and decided by financial capacity and policy nature (Zhang et al, 2015). Although higher expenditure does not necessarily mean better health, making the right investment at the right time will improve health (WHO, 2017).

Previous studies on SPP have focused on environmental protection, financial investment and cost-efficiency. Most researches believe that adopting green products or implementing SPP is resource-intensive and expensive (Gormly, 2014; Hasselbalch et al., 2014), which may become the critical important obstacle factor of SPP (Bratt et al., 2013).

This research data shows that economic factors are an essential external driving force of SPP, and people hope to increase financial investment in SPP. The scale, content, structure and mode of SPP should be compatible with the overall level of economic and social development, balanced with the leading level of the development of basic medical services in the whole society, and coordinated with the overall ability of the government to provide basic public

services. However, as stated in the 2.3.2 of this research, government resources are limited. When formulating policies, the government must consider the health goals to be achieved and the financial reality it faces. It is most important for policy-makers to reach specific goals at what cost (Gillingham, 2014). Therefore, the tight financial resources and the higher cost of purchasing environmental protection products are not considered as the main obstacles to the current SPP. Although most countries (or regions) are concerned, health resources are still insufficient in relation to the demand for health services of the population (Mladovsky et al., 2012; Meehan et al., 2017), SPP driver pays more attention to how to better support health for all with a limited budget.

Data analysis shows that more people believe that in the field of primary health service, the effectiveness of SPP places more emphasis on social sustainability. How to distribute health resources equitable, rationally and effectively reflects a country's or region's government's concept and governance ability to plan, make decisions and implement health affairs. Whether the limited health resources can be effectively allocated to achieve efficient utilisation is the key to solve the problem (see Table 6-6). The data show the interviewees' views on what they believe is the financial failure to give full play to the driving force. It can be found that the interviewees with different roles have different concerns, and the interviewees have different views on the further development of fiscal driving measures in SPP. What is sure is that about 90% of the interviewees put forward questions and suggestions concerning 'who will buy', 'what to buy' and 'how to buy' (see Table 6-6). Almost all of these problems are related to the formulation of

policies and systems. Whether these policies and systems are recognised or not depends on the different interests of different stakeholders and various judgments.

These findings show that the promotion of basic medical SPP does not depend on the addition of more financial funds, but on the correct assessment of demand, improvement of procurement efficiency and realisation of 'value for money'. The core of financial expenditure efficiency is the rationality of the allocation of government health expenditure funds and the effectiveness of the use of government health expenditure. The motivation to SPP is the adequacy of the total amount of public finance and the effectiveness of fiscal policies, public procurement systems and tools. Under specific historical conditions, there are various means provided by society to the subject to realise the benefits. The final decision on how they use these means and tools depends on the needs and interests, knowledge and wisdom of procurement-related subjects. Therefore, although finance acts as an external motivation to SPP, it is still determined by internal factors and is demand-oriented and interest-oriented as inner powers.

### **6.3.3. Theme 3 – Organisational motivation**

This research found many driving factors of SPP related to the organisation. On the one hand, it is reflected in the external environment of the organisation and inter-organisation cooperation factors. On the other hand, it is reflected in the internal organisation, which focuses on the internal strategy, leadership, process personnel, motivation and coordination. More than 50% of

the respondents mentioned all the drivers, and Table 6-7 and Table 6-8 summarise these findings. The vast majority of interviewees believe that organisational factors have an important driving effect on SPP.

Previous studies on SPP have focused on the analysis of individual factors of sustainable supply chain and organisation. Past literature research results show that a sustainable supply chain and SPP are mutually reinforcing. Procurement management is characterised by 'forward and backward expansion'. As a process, its position is very convenient, enabling it to play a strategic role in achieving the goal of sustainability. The data show that most of the interviewees in this study did not mention the procurement problems under the medical procurement supply chain voluntarily. However, there were only a limited number of interviewees talking about the medical procurement supply chain despite conscious verification in the interview. It may be due to the limited impact of supply chain management on the medical field in the region and the insufficient accumulation of experience and theoretical thinking (Silvestre and Silvanetto, 2014).

In explaining the concept of the supply chain to the interviewees, respondents believe that the procurement of primary health services is not a simple activity provided by a single organisation, but a particular public service chain formed by the coordination of different natures and multiple related organisations or institutions. EP3 points out, *'The medical service supply chain starts with the needs of patients, promotes the flow of logistics, information flow and capital flow, and finally enables patients to obtain high-quality, safe and effective medical and health services through*

*procurement. Each node can only survive and develop and achieve win-win results by taking providing satisfactory services for patients as a guide to action.'* MG3 believes, *'Basic medical and health-related procurement is a multi-subject chain. Medical institutions, health management agencies, medical insurance agencies, drug supervision agencies, drug procurement platforms, pharmaceutical enterprises and distribution enterprises have their considerations. However, the objectives are the same and coordination is not easy.'* At least one-third of the participants mentioned this evaluation. It means that the theory and practice of supply chain in the field of primary health service are still in the primary stage, and the formation of a sustainable supply chain is indeed helpful for SPP. However, the theory and practice in this field still need to be further developed.

Different from previous studies, the analysis of this study shows that the most significant organisational impact factor of sustainable procurement is concentrated on 'people'. Even if some participants talk about the driving force of the supply chain to SPP, they will also emphasise relevant factors such as stakeholders, organisational synergy and organisational incentives. Table 6-7 and Table 6-8 show that the 'human' factors are the SPP organisation insiders and stakeholders respectively. People's ability, organisational motivation, leadership, stakeholder, and organisational coordination are highly concerned. These findings provide two critical insights. First, SPP is not an activity process of a single organisation and main body, because the behaviours of multiple purchasing main bodies and stakeholders are highly complicated. And it is necessary to pay attention to the connection between one driving factor and

other driving factors. Secondly, people occupy a decisive position in SPP activities, and pay attention to the endogenous motivation behind the behaviour of stakeholders. Through value recognition and benefit-sharing, motivation for SPP may be formed.

The interview results are consistent with relevant theoretical research. SPP involves many stakeholders. The main reason for the complexity of the motivation mechanism of SPP is the demand and benefit factors of individuals, groups and organisations and their relationships. It is embodied in the initiative of human cognition and the complexity of human needs, and these characteristics of human beings are embodied in the purpose of human behaviour. Under the same environmental conditions and similar external impetus, SPP decision makers and implementers will have very different SPP behaviours. Whether SPP gets a positive driving force or not should not only consider the impact mechanism of specific environmental factors, but also explore the variable categories caused by participants (human) factors and their impact mechanism on SPP drivers (Wang, 2014).

In order to effectively implement SPP, the internal power of the organisation is more critical. The extent of SPP behaviour depends to a large extent on the beliefs and attitudes of purchasers and stakeholders. However, meeting their needs through incentives and value transformation can positively affect the degree of SPP performance (Grandia et al., 2015).

Previous literature studies focused on the impact of purchasing organisation's ability and organisational incentives on SPP, which were fully confirmed in interviews. For the promotion of SPP,

community medical institutions generally pay attention to the coordination and incentive mechanism of stakeholders. In contrast, the interviewees of pharmaceutical enterprises pay more attention to the necessity of expanding the scope of their business practice through active communication, information sharing and enhanced cooperation (Garvare and Johansson, 2011; Grimm et al., 2016).

This research reconfirms the conclusion of previous studies on SPP that organisational environment is an significant power source affecting the organisation's implementation of SPP. Respondents expressed the need to consider different organisational backgrounds and environments, emphasising that organisations should adapt to the environment, abide by regulations, and ensure that procurement achieves socioeconomic and environmental goals.

#### **6.3.4. Theme 4 – Value and resource motivation**

The results of literature research believe that values, culture and resources can constitute spiritual and material support for SPP, and the data of this qualitative research support this conclusion.

The important internal driving force of human behaviour is their value cognition. Values are regarded as the starting point and destination of people's behaviour and an important part of people's world outlook. Attitude is a relatively organised tendency of concept, emotion and behaviour. The essential basis of attitude formation is cognition. Culture is a kind of behavioural motive force gradually accumulated and internalised in the heart, which can be realised by influencing people's thinking mode and emotional attitude.

The results obtained from the interview data show that different values and different cultures will lead to different attitudes, different purchasing decisions and behaviours. The data results show that if the relevant concepts and values of sustainability are embedded in the organisation's culture, it can promote the organisation members to make commitments, which is a vital determinant to change employee behaviour and ideal work results (Grandia, 2016). If the value concept of the government changes, it may lead to different governing concepts, thus determining the choice of public services and the direction of the SPP, triggering the adjustment of government strategies and ideas, thus affecting the accumulation and improvement of SPP financial investment and related resources. If the positive concept of SPP is embedded in the values and beliefs of stakeholders, it will also change the concept of stakeholders and guide them to adopt corresponding SPP behaviours.

These findings suggest that through the transmission of sustainable development culture and values, they are internalised into people's thoughts, psychology and personality systems to form common ideals and beliefs, which are concentrated in the practical activities to realise the overall social and individual value goals. They are the most profound and lasting power source for social individuals and social groups to carry out value creation activities. In the future implementation of SPP, due to the adoption of culture, values and attitudes, the formation of positive commitment, knowledge and ability of stakeholders and members of the organisation may become an important power source for the organisation. This discovery also proves the importance of internal driving factors in SPP, the close relationship between internal factors and external

factors, and the significance and mechanism of the role of 'human' in SPP.

The SPP needs a specific material basis. Resource status and resource endowment are not only the basic points of implementing SPP, but also the basic requirements of implementing the SPP, which leads to people's attention to resources, including natural resources, human resources, information resources and social resources. The research proves that resources have direct or indirect motivation effects on SPP. For example, the concentration of certain types of human resources and technological resources provides guarantee and competitive advantages for promoting the sustainability of related industries and services. The direct expression of technological resources is to create and improve procurement tools, procurement technologies and procurement management methods. For example, e-commerce and Internet technologies are used to supplement traditional forms of training technologies through online assessment tools and training materials. To improve the SPP capabilities of stakeholders and implement the formulation of SPP standards, SPP has been dramatically promoted (Adjei-Bamfo et al., 2019).

Data research also proves that countries or regions, enterprises or organisations, industries or departments usually have different resources situation and capacity, which are objective while including human factors. These differences may determine the comparative advantages and competitiveness of different regions and departments, with the result of efficiency, optimisation and sustainability.

The results show that most of the motivation factors and perspectives put forward by the interviewees are consistent with the conceptual framework, and the following empirical viewpoints enrich the theoretical research.

First, the research results show that cultural values and resources as internal power can promote the implementation of SPP. Once the values are formed and established, they will guide and orient people's specific activities as a subjective condition or internal factor. MG5 summarises the views of many people, '*The first thing to do is to change one's concept. Changing one's concept will change one's behaviour.*' Resources can, to a certain extent, determine the direction of utilisation and development of resources, so that resources can be used by SPP and become a process of increasing social wealth. There is evidence that factors with better resources have all played a driving role in SPP, and lack of resources has also become one of the resistance factors of SPP.

It is worth noting that cultural values and resources will not automatically become SPP motivation and play a leading or pulling role. However, as a kind of development ideology and conscious behaviour, it will respond to the demands and claims of the interest groups it represents, and include the pursuit of certain social value goals and the choice of value orientation. Otherwise, this idea will not last long due to the loss of public support. However, the utilisation and development of resources show and implement the wishes, wills and purposes of human beings, the main body of social resources. Therefore, the driving force of values and resources is demand-oriented, and its essence is an internal driving force.

Second, another issue emphasised by participants is that the success of SPP does not depend solely on the government's concept. Previous studies have emphasised more on the government's dominant values, and the construction of the dominant values mainly depends on the authoritative power of state institutions. However, the data of this study show that the power affecting SPP comes from mainstream values, that is, it depends more on stakeholders and public will (see Table 6-10). Because value consciousness is a reflection of people's interests, needs and requirements, whether people accept a certain value depends mainly on people's understanding of whether this value is consistent with their own interests, needs and requirements. This is confirmed by theory and practice.

SPP is a complex phenomenon that serves the public and involves more stakeholders. All actors are required to play their roles to achieve positive results (Bassoumah, 2018). It is necessary to educate stakeholders and the public so that they can incorporate sustainable and ethical standards into their SPP and consumption decisions. Once common values are formed, they will be binding on members of society. This kind of value will not only affect everyone's behaviour consciously, but also become a social norm and system to restrict everyone's behaviour (Walker, 2012).

Third, public procurement often follows broader social preferences. The purchasing preferences of stakeholders and the public are not isolated attitudes, but reflect their social and socio-economic conditions and political views. They will support procurement practices that are in line with their personal beliefs and interests. The attitudes and behaviours of stakeholders and the public are

affected by the new policy. Still it also determines the future policy, which is crucial to the legitimacy of the procurement policy. SPP policies and implementation either reflect public preferences or shape these preferences to conform to sustainable development goals.

The survival of an organisation is actually the maintenance of values and the recognition of benefits by everyone. The motivation of people's behaviour is controlled and restricted by values, and the value control the direction of motivation. Only those that are considered desirable through value judgment can be converted into the motivation of behaviour, and people's behaviour can be guided with this goal. If relevant participants believe that SPP behaviour can bring them benefits and they are willing to make emotional commitments, they will actively demonstrate sustainable purchasing behaviour (Grandia et al., 2013; Vermeeren, 2014). Therefore, an in-depth study of the behaviour practices of SPP participants and mastering and utilising the corresponding rules and strategies may generate positive power to SPP.

The conclusion of the research is that value consciousness is a reflection of people's interests, needs and requirements. Whether people accept certain values depends mainly on people's understanding of whether values conform to their own interests, needs and requirements. This discovery is of great significance to this research topic.

### **6.3.5. Theme 5 – Responsibility consciousness and interest motivation**

Firstly, 'responsibility consciousness' is the internal motivation of SPP.

SPP in the field of primary health service involves necessary medical products and services, which are non-competitive and non-exclusive. Judging from the social attribute, it contains social fairness, public interest and other value judgments. As a kind of public demand, primary health service is characterised by the universality and concentration of demand, which reflects common problems. The second is the unreachable power of individuals. Solving issues depends on the power of the collective. SPP in the field of primary health service is related to the overall arrangement of social development, and the provision of public goods will bring different sharing of social benefits. Although efficiency is crucial, it should be based on respect for the ideal of public service, respect for people in the core position and respect for values such as justice, fairness, responsiveness, respect, authorisation and commitment (Denhardt & Denhardt, 2016).

Based on the opinions of research participants, the interview results confirmed that the conclusion of literature research, 'responsibility' has always been the core operation basis of SPP. The role of the government is to ensure that the public interest is in a dominant position and that the solutions to public problems themselves and the processes that produce them conform to justice (Denhardt & Denhardt, 2016). As the main distributor of public resources, the government can affect citizens' welfare, choices and life prospects by formulating public policies and implementing SPP. In a society, it

is the most common component for the government to assume clear responsibilities to maintain and adapt to society. As shown in the research results of section 6.3.1 and 6.3.2, policies, regulations and finance can promote SPP, which is also the process of the government performing its duties. However, due diligence by the government is not only the result of passive adaptation to environmental pressure, but should be the responsibility consciousness of the government. Its motivation comes from the discovery and respect of citizens' needs and the endogenous factors of cognition of its own responsibility and purchasing function.

There are two types of government responsibility – objective responsibility and subjective responsibility. Objective responsibility comes from what is required and imposed from outside the government, while subjective responsibility is what I think I should be responsible for (Cooper & Schindler, 2010). The so-called responsibility consciousness is a responsible government, which takes the initiative to do something when citizens have no direct demands and creatively performs all kinds of responsibilities it undertakes and promises to citizens. The conclusion of the data research shows that all the interviewees agree with the importance of 'government responsibility' and believe that the government's 'responsibility consciousness' is the internal power of the procurement subject. As NG3 pointed out, *'The concept of development and the concept of health are both processes of continuous progress. Fairness and justice become the connotation of sustainability. If the government is aware of changing the governance mode, it will deviate from the target if it is not aware of it.'*

Not only that, but the answer from the data research also shows that 'responsibility consciousness' is an important driving force of SPP, and SPP stakeholders can become active agents rather than passive negative actors. It should be consistent with the research conclusion of section 6.3.4. Changes in the culture and values of stakeholders can change their concepts, voluntarily commit themselves to take responsibility, and become active practitioners of SPP.

Secondly, demand orientation is the core issue of SPP.

This research believes that the dimension problem is an essential aspect of studying the motivation mechanism of SPP development, namely the motivation direction. This problem is fully reflected in the interviewed results (Table 6-16; Table 6-17). Most participants believe that the SPP can be promoted and developed in the right direction, which requires a guided choice.

The data in Table 6-16 and Table 6-17 show that the participants mainly pay attention to the orientation of SPP from two aspects. First, judging from the determination of SPP objectives, SPP is derived from the government itself or the needs of citizens? Demand-oriented is that under the guidance of the social standard and the people-oriented concept, the government complies with the requirements of public opinion, provides public goods and services based on public demand and undertakes service responsibilities. Second, from the perspective of the driving force of SPP, is the fundamental driving force the external environmental pressure or the internal demand motivation of the actors? Most people tend to

conclude that demand orientation is driven by stakeholders' satisfaction of their own needs and interests based on SPP goals.

People used to think that SPP belongs to the category of public goods. The government dominates its supply and management. The government must provide public services and products based on the objective needs of citizens and provide the most needed services for all citizens. The results of this research show that this is not the case (see Table 6-16). There is no demand-oriented supply of public goods. The interview revealed that, for example, the government has limited resources in a specific period and in a specific social development state, which may prioritise the public affairs held and invested from the perspective of the government. The result is the misuse of public resources that should have been invested in the public health field. Another example is that some bureaucrats focus on government power and lack sufficient attention and response to the public demand, which is manifested as subjective assumption and leads to the disconnection between public procurement and public demand. In addition, some government officials, based on their promotion needs, improve their political status by highlighting their achievements, consuming limited public resources. In contrast, the more urgent and practical needs of the public cannot be met. All of the above reasons may lead to the accumulation of social conflicts because public procurement may not respond to public needs.

Table 6-15 provides guidance-related data. 21 of the 34 interviewees took the initiative and emphasised similar 'demand-oriented' views such as 'starting from demand' or 'taking demand as the centre'. It includes more than 70% of the interviewees from

medical and health institutions and 85% of the interviewees from universities and research institutes. 50% of the interviewees from enterprises support this view, while only 42% of the interviewees from government departments support this idea. It can be seen that different subjects and participants of SPP have different opinions on the issue of driving guidance. This may be because they play different roles and have different interests, thus holding different attitudes and concerns.

The results of a large amount of data analysis confirm that SPP should be demand oriented (Table 6-16; Table 6-17). It has changed from 'taking treatment as the centre' to 'taking people as the centre', highlighting the concepts of 'people-oriented', 'empowering the people', 'dialogue and participation', 'strategic procurement', 'common governance' and 'value for money'. The core of the SPP is to believe that the main force of the SPP originates from public demand. Some examples are persuasive. For example, CH1, *'Financial support is provided to purchase medical software for us. Suppliers do not understand the needs of community service. We invite them to design and debug together in the process of community service. The results are excellent and the suppliers are also very satisfied.'* Research data show that demand-oriented SPP places people and communities, not diseases, at the centre of the health system, achieving good results and sustainable development (WHO, 2016).

Data analysis shows that a key defect of 'government-oriented' procurement is subject dislocation. As an important subject force for sustainable development, it is the public. They have not been added to the practice of SPP, but have passively accepted the will of the

government. In the end, the wishes of the public and patients are often ignored, and this purchasing behaviour is largely out of line with public needs (Haukipuro, et al., 2016). However, the public's wishes, preferences and needs are reflected in the public rather than determined by the government itself.

According to the new public service theory, the government's ruling concept should be based on the realisation degree of public interests. The pursuit of the satisfaction of public needs and the realisation of social fairness has become the ultimate goal of the government beyond the government's own interests and the efficiency of public administration. Starting from public demand, SPP makes the government and the public become the common leaders of public services. It can guide public procurement to different fields and ultimately determine the sustainable prospect.

Third, the demand expression mechanism affects demand orientation.

In the literature research and interview data, the word 'demand' has appeared frequently. The research found an increasing focus on talking about demand and demand orientation. The research results prove that the public demand is complex, and under the influence of complex factors, SPP will become more complicated. This complexity also comes from the needs of the stakeholders involved. However, this just shows that public health cannot ignore the demand while simply progress any changes or reforms. It has to place more emphasis on demand orientation. The practical solution, when facing complex needs, is to carefully discover the needs, establish a more convenient public demand expression mechanism,

attract stakeholders to participate in research needs, identify real needs and cooperate to meet them. This is the inherent logic of demand-oriented SPP. Only by satisfying the real demand can 'value for money' be realised, only by satisfying the real demand can health justice be realised, and only by satisfying the real demand can the goal of SPP be finally realised.

Meeting the needs of the public is the logical starting point for the government to provide public goods. Therefore, the participants in the interview paid close attention to the concepts of 'demand expression' and 'real demand' (Table 6-14). The most important thing for SPP is to have a correct understanding of its value orientation, starting from the objective existence of the real needs of the public. Respondents pointed out that being lured by false demand is 'misleading demand' rather than 'demand-oriented' (see Table 6-14; Table 6-15).

On the one hand, objectively existing information asymmetry may lead to false demands, such as supplier induced demand (SID) or physician induced demand (PID) caused by government inducement, medical institution inducement, public cognition and cultural deviation in medical treatment (Yang et al., 2017). Decision makers sometimes find it challenging to grasp the real situation and make correct purchasing decisions. On the other hand, the needs to be met by the SPP are expressed by the government from the perspective of maximising its political and economic utility or by the public from its own actual needs, these are significantly different. To ensure the public's right to speak and choose has a decisive influence on the design and operation of the health service system. An effective demand expression mechanism can reflect the

requirements of stakeholders in the supply of public goods and make the final result of the decision close to the balance of interests of all parties. In contrast, the ineffectiveness or lack of demand expression mechanism will make the result of the decision seriously deviate from the goal and the interests of citizens.

To master the needs of the different public for different medical products and services, there needs to have a complete set of primary health service demand expression mechanism. To determine the best way of SPP in the primary health service field, the construction of demand expression mechanism includes two levels. First, there should be ways to make relevant information about SPP, primary health services, medical resources and conditions required by a specific SPP known to the public to form an effective basis for selecting demand expression. The second is to establish a sensitive response mechanism for the suppliers of basic medical products and services to public demand, making public demand expression a key link in SPP.

The research results show that information asymmetry and insufficient participation and coordination of procurement-related entities are one of the obstacles to demand-oriented SPP. It is necessary to strengthen research and innovation in this area, which also indicates an important area for future research.

Fourth, interest-driven is the fundamental driving force of SPP.

Interest is a basic social phenomenon. Interest has certain subjectivity. First, the subject has a strong desire for needs. Only when these subjective desires are met can interest be realised. Secondly, the subject needs to actively exert subjective initiative to

realise the relevant conditions and content to meet the needs. Third, the realisation of benefits is conditional on specific social recognition, because benefits are the benefits determined by society and can only be achieved under the conditions created by society and by means provided by society. It is interests that dominate participants' knowledge and thoughts, affect their judgment on things and determine their choices. Therefore, interest is the fundamental driving force of SPP, and interest regulation is also the core of the motivation mechanism of SPP.

Objectively, SPP is a process in which potential interests are discovered, different stakeholders focus on these interests and pool resources to jointly carry out procurement activities and obtain their expected benefits through procurement. In this process, it is necessary to take into account the interests of all parties, mobilise the enthusiasm of all parties, and achieve win-win development.

Interest is the foundation for the survival and development of individuals and groups, and is also the premise for the existence and development of SPP. However, need is the prerequisite for the formation of interests and the most original stipulation of interests. Human needs reflect the dependence of human beings on external material and spiritual living conditions. Specific needs form specific interests. Interests play a role in guiding and pulling SPP stakeholders. The supply and demand of public goods and private goods are the same. they are not determined by some external force, but by the relationship between social members (Buchanan, 2017).

Medical resources and services are beneficial to people's survival and development. Everyone hopes to get more and how to allocate resources and services, which forms the interests between people. In fact, regardless of the mode of public procurement, it is composed of a certain number of stakeholders (Pandey et al., 2016). the pursuit of interests is the internal motive force for all procurement entities to engage in SPP activities, but this is only the natural state of interest motive force. In reality, analysing from the actual state of interest motive force, interest may become either motive force or resistance. The dynamic effect may be amplified or reduced. Comparing the opinions of the following two participants can confirm MG5, *'The contents and methods of the government's purchase of basic health services are getting closer to the needs of the public, with good results.'* CH3, *'The task content and assessment criteria are all formulated by the government. They do not meet the needs and are not necessarily suitable for service providers. Some of them are difficult to achieve. If you cannot do it and have to pass the examination, there will inevitably be fraud.'* It can be seen that if the interests of procurement-related subjects are generally realised and their enthusiasm is improved, the motive force of interests will be enlarged. On the contrary, some participants get more benefits, the interests of other members are difficult to be protected, and the driving force of benefits is reduced. If the content of profit-making is unreasonable, and the means of profit-making are illegitimate and unreasonable, the irrationality of the interest relationship will make the interest produce resistance to SPP.

The interview results confirmed that SPP is a transaction activity driven by many stakeholders. Stakeholders are organisations composed of people and people that play an important role. Endogenous forces such as demand and interest are of great significance in SPP.

#### **6.3.6. Theme 6 – Strategy and governance motivation**

A strategy is forward-looking, systematic and proactive, is the embodiment of the value concept and implementation plan. When rising to the national level, the strategy reflects the fundamental target direction of a country's or political group's interests, reflects their routes, principles and policies, serves their political purposes, and has a clear target direction. Therefore, research participants attach great importance to this major theme of the conceptual framework.

Strategy and strategic public procurement are essential components of SPP. Many countries and regions regard strategic public procurement as an organic supplement to sustainable policies, making various effects of procurement interact. Strategic public procurement has been given more meanings. In addition to achieving economic and social benefits and environmental goals through public procurement, strategic public procurement also focuses on innovation and the realisation of other public policy goals, of which public health is one of the critical areas.

The research found that 'strategy' is regarded as an internal source of force leading SPP. It is believed that the national strategic level aims at sustainable development, solves major and long-term

problems and promotes them in an overall and coordinated manner. It is quite challenging in politics, resources and technology (Prier et al., 2016). Step by step, the national top-level design has deepened, systematised and concretised. Also, the implementation path has shown the same trend. In particular, the sample area emphasises that 'people's health first' is the central embodiment of the ruling party's fundamental purpose and ruling philosophy in the field of health. SPP serves this strategic arrangement, which can be said to be a demand-oriented inevitable choice.

Procurement has also played a 'strategic' role. These views are consistent with the conclusion of the political factors of the conceptual framework.

'Strategic purchasing' is considered as a positive way to improve the development of the health system. It mainly includes three aspects of decision-making – Which services to purchase in order to achieve the goal of improving the health of the population and meeting the needs of the population? How to purchase these services, and what kind of contract mechanism or payment method to adopt? Who to buy services from because different agencies have their own comparative advantages in terms of quality and efficiency (Figueras et al., 2005)?

The interviewee's point of view is consistent with the conceptual framework. At present, the government's understanding of 'why to buy services' is relatively unified in practice. The government continuously uses public procurement to improve the efficiency of public resource allocation and public service efficiency. The research data can find that demand-oriented strategic procurement approach

always achieves good results and is sustainable. However, the procurement practices questioned and criticised by the participants are not strategic or sustainable. The World Health Organisation has put forward the concept of 'strategic purchasing' as its primary reform strategy, and has jointly stressed the implementation of strategic purchasing for health care, especially for developing countries (WHO, 2000; 2018). Strategic purchase is a demand-oriented health service, which is determined not by supply alone, but by demand. While assessing demand, more attention should be paid to listening to the opinions of the served, understanding their actual needs and solving their most concerned problems.

The results of the literature research and interviews are consistent. The government needs innovative services and management. Under the background of social multi-governance pattern, the coordination mechanism of the organisation advocated by the Holistic Government and the concept and method of resource integration management of public services are used to open the way for sustainable development. All the interviewees expressed similar opinions. Without close cooperation between departments, various policies have focused on public health concerns. Effective division of labour and cooperation will not achieve sustainable goals. There is an urgent need to improve the mode of collaboration between the health sector and other sectors. This centralised expression reflects the current reality of fragmented administration and difficult coordination among departments.

As a brand-new political concept, the modernisation of national governance system and governance capability provides important theoretical support and practical ideas for building a service-

oriented government (Goldsmith & Eggers, 2005; Liu et al., 2014). The more participants are accommodated in the government network governance, the more knowledge and information can be accommodated in the process of policy formulation, implementation and feedback, and the more professional and technical support can be won for this knowledge and information. While the government takes into account the interests and values of many parties, it will enhance the understanding and support of the public, enterprises and social organisations to government policies. The most significant result of this understanding and support is the smooth implementation of government policies. Diversified participation mechanism expands the supervision space of public administration and prevents the abuse of administrative power.

People-oriented comprehensive health services place informed and empowered people at the centre of the health system. To ensure accountability to local stakeholders in the process of formulating the national strategy and the organisational management process (WHO, 2016), all actors need to play their roles in order to achieve positive results (Bassoumah, 2018).

Among them, 30 interviewees believe that the joint participation and cooperation of stakeholders in SPP plays a critical role Table 6-21. It shows that collaboration and governance may provide more convenience for SPP, thus promoting and guiding the expansion of SPP because the starting point and end point of the 'demand-oriented' SPP are to meet public needs. Paying attention to citizens' participation is the inevitable logic of demand orientation and the supremacy of public interests. Data show that community participation and participation are essential to promote sustainable

primary health care systems (Mutale et al., 2013). The wishes of the public are taken into account, and procurement using public-driven development methods is considered an excellent way to develop procurement procedures (Knutsson and Thomasson, 2014; Enbom et al., 2014).

Data analysis found that the theme of 'participation' was highlighted. As MG6 points out, *'SPP should be a complicated process involving multiple subjects. Facts have proved that the traditional top-down national regulation method has disadvantages. The wide participation of multiple subjects and the cooperative cooperation among them are a trend.'* This attitude was recognised by many participants, which expressed two meanings. First, the starting point and endpoint of the 'demand-oriented' SPP are to meet public needs. Paying attention to citizens' participation is the inevitable logic of demand orientation and the supremacy of public interests. Second, it is a trend for public affairs management to be realised through cooperative governance among government, society, market and other subjects. Perhaps more convenience can be provided for SPP through cooperation and governance, thus promoting and guiding the expansion of SPP.

This discovery shows that the government's supply role and position in government service have changed, and the government needs to re-recognise and define the public's role and position in service supply. SPP, as a policy tool of public governance, emphasises that public policies meet the needs of public opinion and public interests. The government takes meeting public needs and providing public services as its important responsibility. By promoting the government and development partners, civil society and the private

sector to participate vigorously, it establishes a 'co-production mechanism' and a multi-centre governance structure, so that citizens gradually move from the marginal position of 'customers' to the central position of governance. This is not only the need of market control and government failure correction, but also the requirement of social democratisation development. This finding should also be consistent with the conclusions of section 6.3.4 and 6.3.5.

Public participation has become an important means to develop socialist democracy and a way of life for the public to safeguard their legitimate rights and interests and participate in the management of public affairs. The Internet environment also provides more paths for public participation. Public participation not only respects its social rights and interests and makes decisions more reflective of public will, but also helps to enhance participation experience, stimulate public enthusiasm to participate in SPP and form a huge driving force for SPP.

Some interviewees further put forward the need to strengthen international cooperation and joint governance, which was not paid attention to in previous literature research. National public health is not only an important symbol of a country's sustainable development ability, but also an important topic in the international community. International organisations also play a significant role in guiding and driving SPP. For example, the United Nations and other international organisations have promoted the sustainable development of all countries in promoting the direction of rights-based sustainable development and the coordination of global sustainable development strategies. For example, WHO uses the

primary health service model to improve public health and emphasises the people-oriented sustainable development goal. Advocate to focus on the development of community health services, use health resources in a more cost-effective manner, and improve the quality of health care (WHO 2014). For example, it calls for strengthening the public health sector, making appropriate governance arrangements and establishing a basic institutional framework, and providing more trained professionals and other strategic measures to promote (WHO, 2018).

### **6.3.7. Summary of discussions**

This research adopts an exploratory single case study design, with the emphasis on exploring the demand-oriented SPP motivation mechanism. During the semi-structured interview, 6 topics and 21 open questions were used to ensure timely, efficient and consistent interviews.

Data processing and analysis are carried out according to the established methods and paths (see section 4.5 and 4.6).

Throughout the data analysis, the captured participants' detailed descriptions of expression, emotion and behaviour were recorded and referenced. The results were explained based on further analysis of the coded records, including the comparison of participants' reactions.

In this section, the framework established by literature research has been created the linkage with the real world, and contributions have been made through theme-based analysis and discussions. Some

new motivation factors have been confirmed for the first time through case studies (see Table 6-22).

**Table 6-22 New themes summary**

<b>Major Themes</b>	<b>Composite Themes</b>	<b>General Themes</b>	<b>Composite Codes</b>	<b>Coding Examples</b>	<b>Counts</b>
Political factors	<b>4</b> Supervision and <b>assessment</b>	market access Standard specification social supervision Public interest	Monitoring, assessment, political performance, generation switch, job occupation, goals, job report, interest balance, proposals, reports, corruption, punishment, interference, standard, execution, evaluation;	MG2: The People's Deputies and the CPPCC Committee have proposed and discussed the issues in this regard, and put some pressure on officials; EP5: If the performance assessment result cannot reach the goal, the relevant ruler will face job stress; DG1: The government managers may balance the usage of fiscal capital as well as the interests of environment and economy; C1: There are strict standards for our corporate environment and raw materials, and we must meet the standards for production; PH3: Waste and corruption are much better under supervision and pressure.	25
	<b>5</b> <b>Political claims</b>	Ideology Normative constraint	Politic, ruling party, idea, routine, position, spirit, ideology, attitude, strategy;	NG2: Environmental protection and health strategies are already basic national policies and national strategies that must be implemented;	32

		fundamental policy Post assessment		MG4: Keep non-profit on primary health service and refuse profit-based service mode, increase the government input, these are leading requirements for relative procurement; EP3: Solving the problem of 'difficulty in seeing a doctor, expensive medical treatment' and issues of health justice are related to social stability and the position of the ruling party. Therefore, political forces are very effective.	
	<b>6</b> Media	New media Educational guidance Supervision pressure Influence decision- making	Publicity, popularisation of science, multimedia, exposure, events, appeals, stress;	EP4: Incidents can be alarming, spurring short-term improvements that are not being valued for a long time, such as vaccine events, such as SARS, which promotes public health sustainability; DG3: The exposed organisation will lose business opportunities, and the pressure constitutes a supervisory role; MG1: New media promotes greener and more efficient procurement and service methods, such as online procurement and real-time settlement of medical insurance.	22
Interests and responsibi	<b>21</b> Demand- oriented	Demand orientation Demand- centred	Real needs, false demand, excessive demand, induced demand, patient	CH2: The government does not understand the demand very well. Once the demand is found and the procurement content and methods are improved, the results are very different, so the demand feedback is very important;	21

lity-driven demand		Government-led Inducing demand	needs, medical needs, government-led, government-oriented, demand-oriented, customer-oriented, market-oriented, demand-driven, demand-centric, demand-driven, internal drive, orientation;	<p>EP3: Some needs need to be carefully analysed, and procurement does not necessarily achieve sustainable goals because of false demand guidance. For example, just take a slow injection, take medicine casually, and reimburse most of it;</p> <p>DG2: The public health awareness and demand are constantly improving, which has led to the expansion and upgrading of primary health procurement. The main problem is that supply is in short supply;</p> <p>CH6: The top-level design is subject to demand-oriented and will bring strategic changes. For example, by purchasing services to change resource allocation, it has already achieved great results, such as 'guarantee basic, strong grassroots' and 'three medical linkage' reforms.</p>	
	<p><b>22</b></p> <p>Demand expression</p>	<p>Expression mechanism</p> <p>Demand discovery</p> <p>demand collection</p> <p>Feedback response</p>	<p>Discovery, expression, request, response, response, feedback, communication, solicitation, channel, path, approach, advice, proposal, complaint,</p>	<p>CH1-8: We are close to the client, and many needs and interests are improved through our relevant departments;</p> <p>DG1: Demand discovery mainly follows expert opinions, NPC deputies' proposals, and direct patient needs come from service organisations;</p> <p>EP5: Establish a stable and standardised demand expression mechanism and channel that can facilitate the</p>	25

			improvement, listening, demand list, demand collection, demand composition;	sharing of information among procurement parties and achieve synergy.	
Strategy and governance	<b>23</b> Strategy and innovation	Learning ability Concept renewal innovative development	Planning, strategy, layout, long-term, overall, comprehensive, system, reform, health system, progress, new means, new technology, Internet, online procurement, organisational innovation, institutional innovation, payment innovation, management innovation	NG2: The country promotes sustainable procurement through linkages between health care, health care and medicine; CH1-3: Community health services are extended from patients to all populations; service cores are shifting from treatment to health management; new health services and health care personalised service package purchases are a sustainable strategic layout; MG5: The Sunshine Procurement Platform is innovative, improving efficiency, maintaining transparency and achieving economies of scale; C1: Sustainable procurement needs to take into account the interests of all parties, and the payment method has a great impact on the interests of enterprises and patients. Innovative payment methods are necessary.	28

	<p><b>25</b> Governance and cooperation</p>	<p>Interactive negotiation From bottom to top Fragmentation Global governance</p>	<p>Negotiation, decision- making, political participation, regulation, negotiation, cooperation, top- down, bottom-up, democracy, decision- making, department, fragmentation, UN, WHO, international agreement, international public opinion, infectious disease flow, interaction, good governance</p>	<p>NG3: Primary health procurement involves international sensitive issues such as human rights and poverty eradication; NG1: The guidance provided by the World Health Organisation in providing policies and standards is highly visible; MG6: Public procurement should be a complex process involving multiple entities. It turns out that traditional top-down national regulation methods have drawbacks. The broad participation of multiple entities and the inter-subjects' collaboration is a trend.</p>	<p>28</p>
	<p><b>26</b> Participation</p>	<p>decision to participate Social participation</p>	<p>Public, social organisations, community medical institutions, patients, enterprises, CPPCC</p>	<p>CH4-8: Public appeals reflect their urgent demands, and our feedback will affect purchasing decisions; EP1: The starting point and the foothold of demand-oriented primary health procurement are to meet the health needs of residents. This requires community</p>	<p>32</p>

		Interactive communication	representatives, NPC deputies, CPPCC members, third-party institutions, non-medical institutions, discussions, forums, suggestions, suggestions, feedback, questions, consultations, proposals, assessments	residents to participate, express their own interests and create good conditions for demand-oriented mode.	
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There are five new composite themes have been found and summarised throughout the data analysis, which is very critical.

- The composite theme under the political motivation factors.

Theme 5 – Political claims

Theme 6 – Media

The research found that the promotion of SPP by politics is not only the promotion of traditional laws and policies, 'political claims' and related 'performance assessment' can change the decision-making and policy implementation behaviour of officials, thus promoting the improvement of SPP.

The world has entered the era of multimedia. Media communication has not only become the dominant mode of cultural existence in modern society but also plays an important social function. The media have an obvious influence on people's psychological characteristics, behaviour structure, attitude tendency and other aspects, continually changing people's way of thinking and way of life

- The composite theme under the responsibility and interest-driven motivation factors.

Theme 21 – demand-oriented

Theme 22 – demand expression

Most participants believe that the promotion and development of SPP requires a guided choice. The results of a large number of data confirmed that SPP should be demand oriented (Table 6-16; Table 6-17), demand-oriented SPP places people and communities, not diseases, at the centre of the health system (WHO, 2016),

achieving excellent results and sustainable development. Starting from public demand, SPP makes the government and the public become the joint leaders of public services.

Participants in the interview paid close attention to the concepts of 'demand expression' and 'real demand' (Table 6-14). The most important thing for SPP is to have a correct understanding of its value orientation, starting from the objective existence of the real needs of the public. Information asymmetry and insufficient participation and coordination of procurement-related entities are obstacles for achieving demand-oriented SPP. It is necessary to strengthen research and innovation in this area, which also indicates an important area for future research.

- The composite theme under the strategy and governance motivation factors.

#### Theme 26 – Participation

Data analysis found that the theme of 'participation' was highlighted. It expresses two meanings: first of all, the starting point and endpoint of 'demand-oriented' SPP are to meet the needs of the public. Paying attention to citizens' participation in the inevitable logic of demand orientation and the supremacy of public interests. Secondly, it is a trend for public affairs management to be realised through cooperative governance among government, society, market and other subjects. Perhaps more convenience can be provided for SPP through cooperation and governance, thus promoting and guiding the expansion of SPP.

At the same time, 'assessment' has been added to Political Theme 4. 'Cooperation' has been added to Governance Theme 25.

'Innovation' has been added to Governance Theme 23. The specific contents are summarised in Table 6–22.

According to these new data findings, the framework of literature research (Figure 3.2 Version 2) has been improved and these results are reflected in iterative development (see Figure 6.1 Version 3).

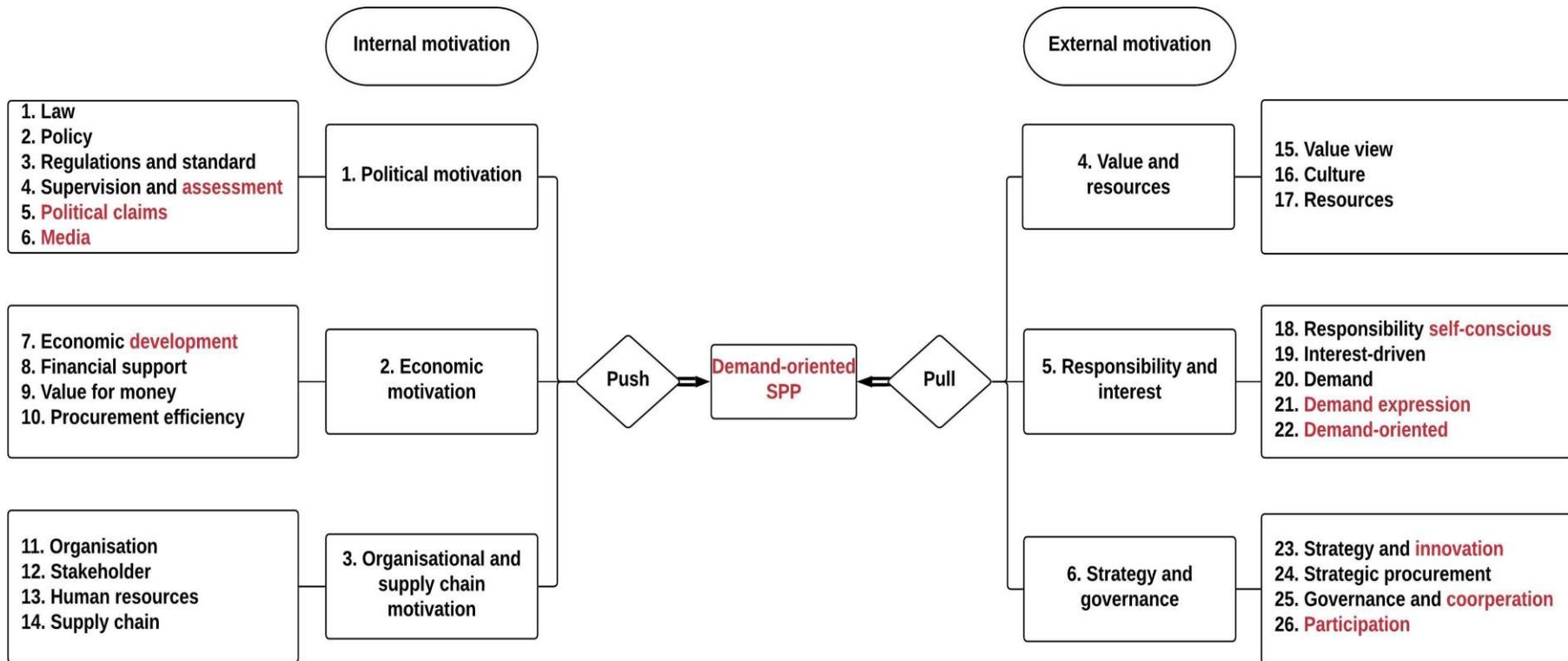


Figure 6-1 Conceptual framework (Version 3)

## **6.4 Validation of conceptual framework**

### **6.4.1 Validation process design**

In section 6.2 and 6.3 of this chapter, the results obtained from the data have been summarised, and the theoretical examination, supplement and perfection of data discovery are embedded into the conceptual framework based on SPP motivation mechanism (see Figure 6.1). The research carried out validation in order to provide confidence through this work, to make sure that the research results are reliable and of practical application value, and to further improve the results with the data obtained from validation process (see section 4.7). This section introduces the opinions provided by relevant practitioners of SPP on the effectiveness and usability of the conceptual framework. It describes the process and results of the SPP conceptual framework validation (Figure 6.1). The research will collect, analyse and incorporate further data in order to update the SPP conceptual framework, to provide additional insights and improvements.

The validation of the interview data and comparing it with the original design conceptual framework (Figure 3.1 and 3.2), has revealed that the answers provided by the validation interviewees are fairly consistent with the existing results. Because the professionals involved in the validation represent different aspects of the research and are experienced experts. The feedback information received by the validation professionals is similar, so these validation interviews are enough for different industries, see Table 6.23.

**Table 6-23 Validation interview participants**

Interviewee codes	Major	Job position	Years of in position
V1	Procurement expert	Professor	Over 10 years
V2	Health expert	Department manager	Over 10 years
V3	Public procurement	Government manager	Over 8 years

### 6.4.2 Validation process findings

This research drew on a relatively mature evaluation standard provided by (Johnson et al.,2006) to evaluate the results of this study, and designed an interview program based on this standard model. Table 6-24 to 6-28 show the data collected by validation, analysis and research results, and incorporate positive suggestions into the final SPP motivation mechanism framework. The following analysis illustrates how these data can help to understand and improve the SPP conceptual framework.

1. Are the main components of the framework appropriate?

**Table 6-24 Validation the conceptual framework design**

Interviewee codes	Are the main components of the framework appropriate?
V1	I do think that there are these complex components. I think this SPP motivation framework is very rich in content. In practice, there may be more specific factors. According to this framework, it can only be put into different parts. SPP power

	and people factors are closely related, right? This factors are taken into consideration. Many parts of this framework are human factors behind. Different values and different needs, so these are a step further than before. Public procurement and government are closely related. So the environmental motivations on the left are also very complicated. They are very effective areas, and the power has internal and external, solving different problems and solving problems in different ways.
V2	Well, according to your introduction and analysis of me, based on my experience with SPP, I think this framework is by far the most comprehensive I have seen. It has captured all the key aspects from the SPP motivation framework. We can say that the categories you use are at least not missing out on what is particularly important. The overall is very strong, and the emphasis on orientation is this direction, it is necessary
V3	Yes, they should be like this. I really don't see any need for expansion. I think they cover the key content of SPP power. I mean this is an SPP motivation framework, which is how it looks. Very systematic, six parts are very rich and inspiring.

When the framework was explained to the interviewees, it was compared to two subsystems via means of system thinking. And the views with different natures and functions are also recognised. The two respondents who joined for the first time, V1 and V2, determined the difference between the power source and the function of the left and right parts of the framework without suggesting it, and considered it an innovation of the framework. All three interviewees agreed that the framework is more systematic and has the difference between internal and external motivation, which is theoretically and practically instructive.

Respondent V1 suggested that although the framework already has a precise classification of motivation factors and contains a lot of

content, it can further indicate its extensibility rather than a fixed framework design.

*'Here, can you express openness and extension, and may suggest that people in this way indicate that the framework is not rigid, and there are more factors to join in' (V1)*

This exploratory validation concludes that the SPP motivation mechanism is very complicated. Although the framework has completed the expansion of the previous conclusions, there may be some space that can be expanded to clarify this. That is to say, the framework is not the final rule, but a direction of guidance. In different parts and categories, there are areas and spaces for further exploration in the future. Those explorations are sustainable, and discovery can be made by any channel or method.

In the final updated version of the framework, the conceptual framework showed the potential further extension compared with earlier in Chapter 6. As shown in Figure 6.2 – Version 4.

2. Are there any obvious problems with the SPP motivation conceptual framework?

Respondents highly agreed with the usefulness and basic structure of the framework, which is suitable for the research objective and the two priorities identified previously for demand orientation and internal motivation are proved as clear.

*'...I didn't see any big gaps. Although some places still need to be perfected, I agree with such a framework and ideas. This demand-oriented guidance has a core meaning.'* (V2)

*'...this is a conceptual framework, not an operational diagram, so its role should be to do it, it is to give hints and guidance.... Of course, it is more suitable for government and researchers as a guide, then It can lead to more research in related fields, especially to promote SPP, you need to consider where to start.'* (V3)

In the interview, all interviewees were encouraged to express their opinions, and any suggestions for further improvement, but no suggestions were received.

**Table 6-25 Problems of conceptual framework**

Interviewee codes	Are there obvious problems with the SPP motivation conceptual framework?
V1	Yes, they are really good. I really don't see anything particularly suitable for the place. I think they cover a wide range and are very representative. I mean this is a framework that gives people a clear guide. Consider what are the possible influencing factors, well, that's it, it's already very satisfying for me.
V2	There is no particular big problem, I think, it is already very clear, it is very helpful for theoretical research and practice. Well, this big framework is particularly clear, so that people are immediately aware of two different nature components. Can consider more Clearly understand the existence of internal power and external power. For example, because of the huge structure, it is clear to the six parts. It is just that, just a moment, the overall impression is clearer.
V3	The overall integrity of this framework is very strong, a global observation, and the embodiment of the power direction is

	<p>particularly persuasive. Indeed, it is not only an external force, but also the internal force. This driving force is clear in three aspects. Then, then, it started from there, this should be the leading force... Here you can consider the "motivation" factor, because the whole is explaining the power, the left side is clear, the right side can be further clarified. This is not The big problem, because it is already fully explained elsewhere, is only intuitively better. Yes, so from a holistic perspective, this is a very good conceptual framework.</p>
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Respondents V2 and V3 discussed further clear questions about the performance of the framework. V2 highlighted the general overview of internal and external motivation, ensuring that the conceptual framework users are clear, *'You can consider more clearly about internal motivations and external the existence of power'* (V2)

*'You can consider the "power" factor clearly, because the whole is explaining the power, the left side is clear, the right side can be further clarified, you can define the six aspects of the user, which are all summarised from the motivation point of view...'* (V3)

According to the inspection recommendations, these validation data are used to perfect the framework, and ensure that the construction of the framework can provide clear guidance to both researchers or practitioners of the SPP.

### 3. Is the framework useful for SPP motivation practitioners?

All the validation participants have no doubt and are very pleased with the future role of this research. The proposed framework is useful for both SPP academic research and practical promotion.

All respondents agree that,

*'Yes, I think it must be, um, I am very pleased with this result, it is not a simple description, it is a guide to innovative thinking and theoretical practice'* (V1)

*'I am convinced that its value, if you work hard to understand and apply, will certainly benefit a lot'.* (V2)

*'Yes, I think it goes further than previous research, and it is a big step. It is not simply an induction, but a methodological change that captures the key point. The internal motivation is especially meaningful'.* (V3)

**Table 6-26 Validation of the conceptual framework reliability**

Interviewee codes	Is the framework useful for SPP motivation practitioners?
V1	<p>Yes, I think it must be, um, I am very pleased with this result. Traditional research is limited to a certain part of the research, the actual SPP motivation is very complicated. This framework, it is not a simple description, is an innovative thinking And a guide to theoretical practice. Researchers can go deeper in the direction of each part and discover a broader field; practitioners can well consider that lack of motivation may not be a problem in some way, but an overall problem, or mutual The problem. Well, it will make people add wisdom and means, you know, this is very valuable.</p>
V2	<p>Yes, actually I think it might be more useful than the traditional framework.</p> <p>Very comprehensive system, in my experience, the most felt is the blur and lack of the right side of the frame. The driving effect in a single direction is not good, I can see a new idea and strategy. In my organisation, it is actually that the internal motivation is insufficient or that it is not fully developed, so it is difficult to have motivation. The deepest experience of my experience is the meaning of the framework</p>

	on the right. I am convinced that its value, if SPP participants work hard to understand and apply, will certainly benefit a lot. Therefore, I am very pleased to see this.
V3	Yes, I think it is a step further than previous research, and it is a big step. It is not simply an induction, but a methodological change that captures the key point. The internal motivation is especially meaningful. No doubt. I think it is useful. The key to SPP is still human problems, the attitudes and behaviours of stakeholders, the past research buyers are all from the perspective of procurement, and we like to see what people do, we have not studied why they will do Those. Interdisciplinary research is a new vision. In any case, you need to understand people, different people, different ideas, different behaviours. This is great, I like it very much, and we need to consider the needs and motivations for the government to formulate policies. I agree, I fully understand, you know this is a must.

All participants in the validation interview highly agree with the practicality and innovation of this research. Respondents V2 and V3 discussed the details of the six frameworks, and V3 emphasised the supportive nature of internal motivation in-depth research and interdisciplinary research on SPP motivation to play its role in the future fully:

*'People are complex and there are many SPP stakeholders involved. It is not a simple market trading behaviour that can be explained...'*

V2 suggested that further research work could be carried out to clarify further SPP practitioners' understanding of the internal motivation of the framework and the priorities that those factors may place.

V1 sees this framework as a path for SPP researchers and practitioners to refer to development support tools, *'I can think that along this line of thought, as a reference point, and consider how to*

*develop some effective SPP power tools. You can activate the power source or form a synergy'.*

4. Do you have any questions about the SPP motivation mechanism?

Given the iterative nature of this study, it is expected that further work will be done in the future to refine the SPP motivation mechanism framework further. This validation process requires participants to make clear recommendations for challenges and improvements to the context.

**Table 6-27 Questions on the framework**

Interviewee codes	Do you have any questions about the SPP motivation mechanism framework?
V1	Well, I think that this framework should be very clear, and its advantages are obvious. It is not a difficult thing to understand. Of course, if further research is carried out, then the expansion space of various powers is still very large, you know, Every part may be a piece of heaven and earth. The user also needs to continue to explore.
V2	Time is tight. If you have more time to study it, you may have more to gain. It looks good now and it is worth recommending. And the initial state of your research has changed a lot, which means If you keep going deeper, there may be new discoveries.
V3	I have already talked about it. It's great. I don't have any doubts. But for different users, the understanding they may use is different. The detailed content titles are simple and easy to understand.

Although people did not question the research results and did not point out any specific areas of improvement of the framework,

some prospects and assumptions were found from the examiner and interview data. Both V1 and V2 refer to the possibility of in-depth research, and thorough research may be on the framework. Further extension and comprehensive request. V3 believed that the framework is based on the guidance and support of the inexperienced SPP practitioners.

5. What suggestions do you have on the improvement of this conceptual framework?

No other recommendations were made in the course of the interview, and the individual comments that emerged are listed in Table 6.15 as they provide further insights.

V2 insisted that as a new model of the SPP motivation, the advantages are apparent, and the emphasis of its demand-oriented and internal motivation mechanism is particularly valuable,

*'This is the most comprehensive motivation framework I have ever seen. The internal power it suggests is very valuable for research and use. I will go back and prepare to study it again'. (V2)*

Respondent V1 believes that *'the core of SPP's motivation mechanism framework is demand-oriented. This is recommended to continue research and there will be many valuable results. The concern of demand is not a matter of one party, but a general direction'*.

**Table 6-28 Further suggestions**

Interviewee codes	What Suggestions do you have on the improvement and improvement of SPP motivation mechanism framework?
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V1	<p>This is a very good result. This field is also an area worth studying. Now the work has opened up a new world, and then there are many topics in the six components or in the left and right areas. I am The experience of public management feels that this is a trend, a study of new governance models. My suggestion is to let more people delve into this research from different angles. In other words, your mission can continue.</p>
V2	<p>I think this research is a key point, demand-oriented. The characteristics of this research are different from the past, not only because of its systematisation, but also because it looks like a holistic view. Another important thing is to be deeply rooted in the hearts of the people. 'The study. Human factors are too important, too many changes, and any change in behaviour is a matter of the human heart. This research drive with psychology is very necessary, and the suggestion is to strengthen and deepen in this field. I think that the ability you can provide and support will be a good benefit, absolutely.</p>
V3	<p>I am very inspired. I like this system idea and like this clear direction. You know, although the system is more and more complicated, or there are more disciplines to support, it is really close to the essence of the problem. Help solve problems. Government departments are worth learning from policy development.</p>

Respondent V3 suggests that the SPP motivation conceptual framework can be further extended, and then each part can be visualised and graphically represented. If there is a ranking of the data analysis field and application manual, the use of the framework can be further strengthened.

*'I think this research has made a good start. The next step is to consider qualitative research to intervene, use data ranking and analysis to be more convincing and easier to choose. I think the chart of psychoanalysis is also very beneficial.'* (V3)

*'If the theoretical research is stable and mature, then I think it is necessary to consider and provide some toolkits so that users can*

*easily prioritise or take effective actions, such as internal incentives, such as public participation, which can be guided by tools.'*(V2)

Some insights provide a possible future research direction and are discussed in the next chapter.

### **6.4.3 Update of SPP conceptual framework**

After a careful framework validation process, some precious insights emerged from the data:

Validation interviewees agree that the framework is credible and has a guiding role in theory and practice, according to Johnson et al., (2006). The inspection found that the framework has no severe defects, but suggested that the future work can continuously improve and perfect the framework, which will be discussed in chapter 7.

Validation participants continue to emphasise the innovative thinking of the framework. Demand orientation and the distinction between internal and external motivation factors are regarded as one of its main advantages, i.e. the support and guidance of the framework for future theoretical research and realistic problem solving are critical. The establishment of a framework with holistic view derived from system thinking is regarded as a novel methodology, which has stepped out of the dilemma of finding the motivation mechanism of SPP by individual elements and a single discipline.

Summarise the suggestions put forward by the inspectors on the conceptual framework, mainly including,

1. This framework is more systematic and distinguishes between internal and external forces. To ensure that users of the conceptual framework are manifest at a glance, they can consider the existence of internal power and external power more clearly.
2. It can be considered to have a clear discussion on all 'motivation factors' because the whole framework is focusing on explaining motivation. The left side is already clear and the right side can be further revised, which could allow readers to define all the six themes of motivation.
3. The leading role of 'demand-oriented SPP' and 'internal motivation' of SPP has been determined to be particularly important. A clear mark in the final iteration of the motivation mechanism framework of SPP can provide warnings to theoretical researchers and practical workers, and pay special attention to its importance in this respect.
4. Although the framework has a precise classification of motivation factors and contains a lot of contents, it can further indicate its extensibility rather than a fixed framework design. The framework is not the final product but a guiding direction. In different parts and categories, there are areas and spaces for further exploration in the future. It could be better to clarify these points to people.

Through interactive interviews with experienced SPP professionals, the motivation mechanism framework of SPP was validated and

insights were provided to improve the framework, which was included in the development of its final iteration, as shown in Figure 6.2.

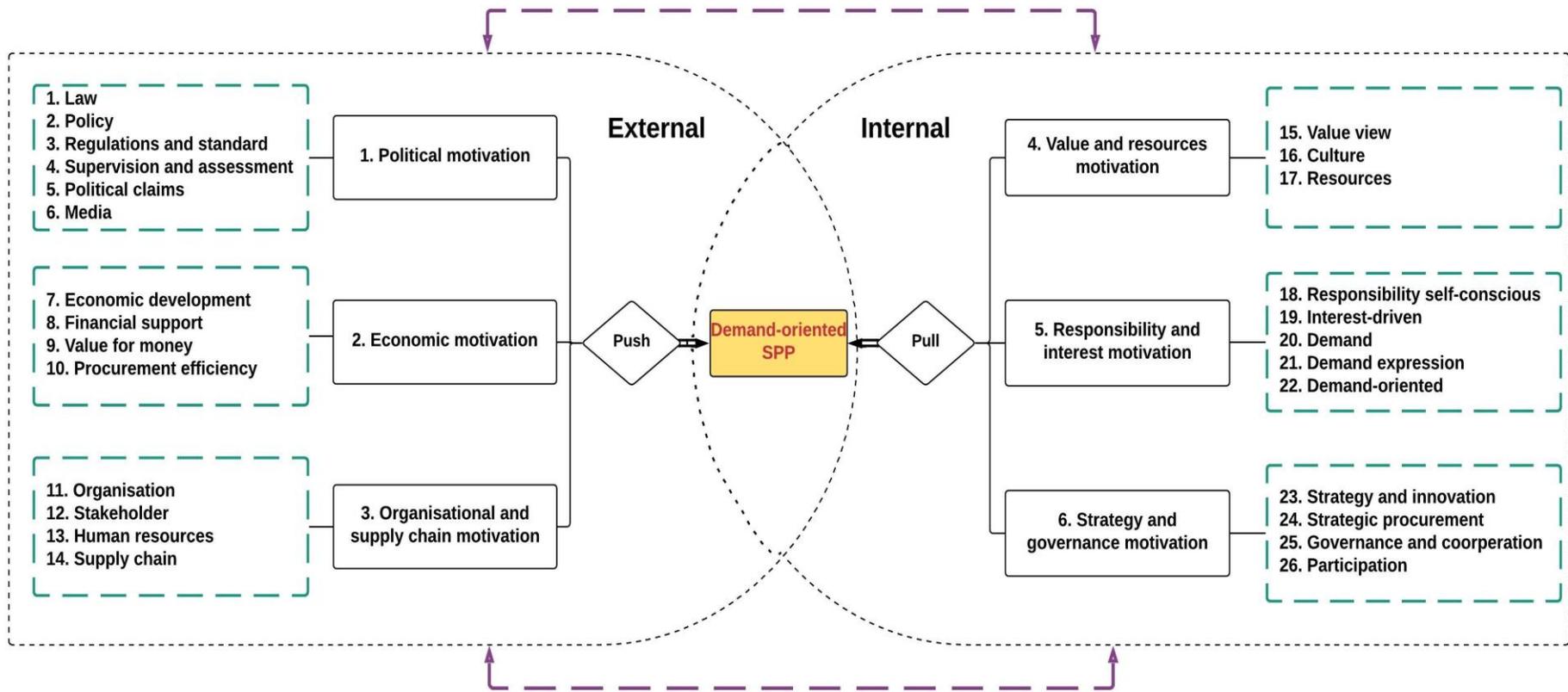
First, the new framework is more based on system thinking, distinguishing and prompting the external and internal motivation on the left and right sides with dotted lines respectively. The two systems are open and related, with the same goals, forming the demand-oriented SPP 'pushing' force and 'pulling' force respectively to ensure that the conceptual framework is easy to understand.

Second, all six motivation themes are unified and clear about 'motivation factors', allowing users to clarify the six themes, which are summarised from the perspective of motivation.

Third, in the final iteration of the SPP motivation mechanism framework, the leading role of 'demand-oriented SPP' and 'internal motivation' is clearly marked, which can provide warnings to theoretical researchers and practical workers, and pay special attention to its importance in this respect.

Fourth, the left and right subsystems of the new framework are merged within dotted lines, which indicates that it is not a fixed framework and is not the final version, but a guiding idea, highlighting the openness and extensibility of the system. Dotted lines on different themes also indicate that there are areas and spaces for further exploration in the future, which aims to clarify the extensibility of the framework.

The analysis of the validation data also provides a basis for further development of the research field of SPP motivation mechanism in the future.



**Figure 6-2 Conceptual framework (Version 4)**

## **6.5 Conclusion**

### **6.5.1 Summary of data analysis and discussion**

In chapter 3, based on extensive and multidisciplinary literature analysis, an exploratory and comprehensive conceptual framework of motivation mechanism of SPP has been constructed. According to the nature and goal of this research, qualitative research and semi-structured interview were chosen to provide evidence for the research theme through a case study. Thankfully, the interview yielded great results. This chapter links the framework of literature research with the real world and the final results obtained through theme-based analysis.

First, the results of the interview research basically correspond to the theoretical conclusions and conceptual framework obtained from the literature research, and all the themes determined in the literature research have been confirmed. It includes, external motivation – political factors, economic factors, and organisational factors. And, internal motivation including values and resources factors, responsibilities and interests factors, strategy and governance factors.

Second, new motivation factors have been confirmed for the first time through case studies (see Table 6-2 in Appendix 6). The analysis of composite themes has supplemented and expanded the achievements of the theoretical research findings to different degrees, further supported the correctness of the major themes in the initial conceptual framework. According to the new data discovery, it supplements with new composite themes based on case data and enriches the content of the original composite

themes. Based on induction and analysis, the conceptual framework of SPP motivation factors has been improved, the correlation between internal and external driving factors is established, and the interaction between driving factors themes is emphasised. The framework of literature research has been further improved. These achievements are reflected in iterative development, see Figure 6.1.

Thirdly, interestingly, the research found that, in contrast to the previous study, which emphasised the importance of environmental stress on SPP, some of the driving factors of external pressure in the implementation of SPP in the primary health service do not seem to be so critical. For example, the influence of supply chain on the promotion of SPP behaviour by relevant organisations. Another example, financial pressure often shows resistance to SPP, which has not been confirmed in this research. The study found that public procurement does not necessarily take place in the context of supply chain environment, which may be related to the nature of public goods and public procurement management system. The research also found that stakeholders formed a common value concept and were guided in the demand-oriented joint efforts. The intensity of financial investment and the effect of financial utilisation would be beneficial to the SPP and would not become the resistance of the SPP. These results further confirm that external motivation does exist and plays an important role. However, the decisive factor is internal motivation, which is the value and interest guidance of SPP participants. It also reveals the nature of the relationship between internal power and external power.

Fourth, research proves that the importance of demand orientation cannot be overemphasised. Demand orientation seems to be the core of the motivation mechanism of SPP. It is because that the ultimate goal of SPP should be demand-oriented. The active coordination of stakeholders should be demand-oriented. Demand orientation is based on the guidance and drive of interests, which is transformed into the conscious and positive sustainable internal power of the actors. It is guided by public demand and the creation of public value, organically combines the external and internal motivation, and unifies them under the common goal of demand orientation, to promote the sustainable development of SPP.

Fifth, the results of the interview research not only verified most of the conclusions of the theoretical research but also enriched the previous literature research on the understanding of demand-oriented SPP motivation. According to the suggestions of Nilsson et al. (2013) and Gallardo-Vázquez (2014), the established SPP motivation mechanism framework has been verified. Professional validation has been used to ensure the validity of rich data (Yin, 2014). According to data analysis, a complete set of SPP motivation database has been formed. Relevant conclusions have been drawn through the above theoretical and empirical research, further improving the conceptual framework (Figure 6.2) as the final result of this research, and providing a basis for extensive and in-depth analysis in the future.

### **6.5.2 Summary of chapter**

The purpose of this study is, 'Through the design and development of an exploratory, comprehensive SPP motivation conceptual framework, to improve the SPP motivation knowledge and practice'.

The framework is constructed in stages. The first stage, in Chapters 2 and 3, based on extensive literature collection and critical analysis, finds gaps and problems that exist, and forms an exploratory and comprehensive conceptual framework for SPP motivation. It has been named as the original design.

In the second stage, in Chapter 4, the methods and paths for further research are determined based on the nature of the research questions, and the data obtained through interviews with SPP practitioners are reflected through a qualitative case study through Chapters 5 and 6. Confirmed the concept of the framework and improved the content.

The third phase shows the conceptual framework validation that discusses the opinions of experienced SPP practitioners.

It ensures the question of this study – 'How to design and develop an exploratory and comprehensive conceptual framework of theories and practices that have the potential to improve the motivations of SPP?' – to get a positive and satisfactory answer.

As SPP practitioners advised, this chapter verifies the research objective 1 – 'To discover the possible gaps and core factors in SPP motivation research, and determine the problems that need to be considered in research'. And it confirms that theories support the research, and some aspects are theoretically enriched again.

Through the detailed case study and the valuable data obtained, the research objective 2 – ‘To design and construct an exploratory and comprehensive conceptual framework of SPP motivation and improve the theoretical and practical understanding’ was basically realised. The framework inspection process further enables the framework to be confirmed and improved to obtain the final result.

With detailed data coding and data analysis process, the research objective 3 – ‘To determine the structure, key components and functions of the SPP motivation conceptual framework’ was concluded satisfactorily. All key components will be examined and substantiated in the case study data. Adequate data support and refinement increased confidence in the results.

Sufficient data analysis results have confirmed the research objective 4 – ‘To explore the value and role of demand orientation in SPP theory and practice’, and sufficient evidence has proved that this is crucial. The results validated by the professionals are consistent with the results of the case study.

The main contribution of the novel, exploratory, and comprehensive SPP motivation conceptual framework described in this paper to the theory and practice of this research is presented in Chapter 7.

# **Chapter 7 Conclusion**

## ***7.1 Introduction***

This research aims is – ‘Through the design and development of an exploratory, comprehensive SPP motivation conceptual framework, to improve the SPP motivation knowledge and practice’. The foundations of designing the SPP motivation mechanism in this research both theory and practice have achieved in several conclusions.

The first conclusion is that there are complicated motivation factors in SPP, while existing research in this area is not enough to explain clearly. Previous studies have focuses on individual factors or local aspects of SPP. Most of existing literature is descriptive and relatively fragmented. The research on how these factors product and affect the implementation of SPP remains insufficient. So far, no systematic research on SPP motivation has been conducted, and the current research has failed to grasp the interrelationship of SPP motivation factors. Moreover, the existing literature is limited to specific industries and developed countries, and there are still gaps in some other important areas.

The second conclusion is that the external environment and pressure factors are mainly explored, and the SPP motivation mechanism emphasises the adaptability of the organisation to the external environment. However, the behaviours of SPP procurement entities and stakeholders are not all caused by environmental pressure. The focuses in this research include the consideration of people-involved influence, and the internal factors derived from

stakeholders. The complexity brought by these factors could lead to the shortage of in-depth understanding of SPP motivation. In this research, there is a need to use exploratory methods to require and obtain 'live' experiences directly from related people.

The third conclusion is that the previous SPP research preferred the government's 'top-down' procurement process model, and the response to public demand preferences was more like a government-led outcome. However, policy functions of SPP always involve people's decisions or performance. The SPP has increasingly been required to fulfil market-oriented outcomes, the public demands and the interests of all the end user or stakeholders of SPP. The current research on SPP motivation mechanism often ignores public demand and public power sources, which leads to a mismatch from public procurement with the actual public demand. Therefore, it is not only being questioned in efficiency, but also the inconsistency to the sustainable development goals.

The fourth conclusion comes from the difficulty throughout the SPP with diverse theories, subjects, and academic fields. Emerging research has shown the interests in demonstrating cross-subject theoretical innovations that form comprehensive research results.

In this research, based on the implementation of system theory and thinking, the research contributes to combining methods and concepts from the sociology, psychology, and public governance.

Under the guidance of system thinking, this research goes beyond the previous ideas of local and individual motivation research. It contributes to building an exploratory and comprehensive SPP

motivation conceptual framework with integrated internal and external motivations (Figure 6.2)

The research on the motivation mechanism of SPP has emphasised the systematic and purposefulness, demonstrated the necessity and feasibility of 'demand-oriented', and verified the guidance of SPP.

The mechanism of the internal motivation of SPP was revealed. It is proved that internal motivation based on values and interests is the fundamental motivation of SPP, and the driving force of the public is the main factor of SPP success.

This research has expanded the research perspective and adopted an interdisciplinary theoretical perspective which bridged the gap in the current literature on SPP motivation development.

This research has made a meaningful contribution to both scholars and practitioners. It not only provides a robust theoretical foundation framework for comprehensive research on the comprehensive motivation mechanism of SPP, but also puts forward practical suggestions for SPP, becoming a general guide for future research and implementation of SPP.

Specifically, in this chapter, the contributions on theory and practice throughout this research are going to be presented, as well as the research limitations and how they inform future research. Moreover, the conceptual framework validation process will also be discussed. Also included is a reflection on the researcher journey to evaluate how this work has contributed to improving the overall personal experience as academic research.

## **7.2 How the research aim, question and objectives were addressed**

This research aims to – Through the design and development of an exploratory, comprehensive SPP motivation conceptual framework, to improve the SPP motivation knowledge and practice.

The research question is – How to design and develop an exploratory and comprehensive conceptual framework of theories and practices that have the potential to improve the motivations of SPP?

An exploratory and comprehensive demand-oriented SPP conceptual framework have been developed and updated from Version 1.1 and 1.2 (Figure 3.1 and 3.2) to Version 2 and 3 (Figure 6.1 and 6.2), which has been initially validated and refined through data analysis of open interviews and has provided some encouraging responses.

The framework proposed contributes to the research on the theoretical basis of SPP and the concept of public procurement motivation system. The various components of SPP motivation system are determined through literature analysis and qualitative research processes, providing a strong theoretical and practical basis for the framework.

Research objective 1 – ‘To discover the possible gaps and core factors in SPP motivation research, and determine the problems that need to be considered in research’.

In the literature review in this research, it has been found out that individual driving factors or local aspects of SPP issues were presented, while many other topics and focuses remained as blank. This is one of the main reason for this research to develop a conceptual framework of integrated SPP motivation system. The comprehensiveness of the framework is given to its content by its broad components, which ensure that SPP practitioners can get help from a wide range of relevant areas, not just some of the existing research.

Since the SPP is target-driven and the SPP motivation mechanism has the similar operational performance to a system. Therefore, the research implemented the system thinking into the analysis. It is found that the conceptual framework of the SPP motivation mechanism is an outcome based on system thinking.

Research objective 2 – ‘To design and construct an exploratory and comprehensive conceptual framework of SPP motivation and improve the theoretical and practical understanding’.

Through the extensive collection of SPP motivation literature, the methods of interpretation and critical research are used to collect and summarise the scattered or partial research results, and find the remaining gaps and problems. This has contributed to providing the theoretical basis for the content of the conceptual framework of SPP motivation mechanism. The basic concept of the exploratory and comprehensive SPP motivation mechanism conceptual framework is established. This is achieved through a critical review of academic and industry literature in Chapters 2 and 3. The second step consisted of building the framework from the initial data set, acquired through

data obtained by interviewing SPP motivation practitioners. The areas of inquiry, which constitute the components of the framework, cover a broad range of SPP motivation areas, and give the framework its integrative nature. The third stage consisted of a validation process by taking views from experienced SPP motivation practitioners. Validation process confirmed that the framework is reliable and useful for practical purposes. The final step is to update the original conceptual framework into a new version that consists of both theoretical findings and practical data analysis results. See Figure 6.2.

Research objective 3 – 'To determine the structure, key components and functions of the SPP motivation conceptual framework'.

This work was initially achieved through the critical review and theoretical research in Chapter 2 and 3. In Chapter 6, the key components have been updated and validated throughout the data collection and analysis.

The research expands the field of literature research from philosophical thinking with holistic nature. The interrelationship of the framework components comes first from the logical analysis of the theory and existing research results, and secondly from the data analysis. The influence of the relationship determined in the framework is that a certain structure is formed between the elements of the SPP motivation mechanism, and many elements in the system are synergistically symbiotic and mutually constrained. Movements and changes in any element of the system inevitably have an impact on other factors (such as external factors that require internal motivation, and internal motivation are also affected by external pressures), leading to other factors. There will

also be corresponding changes. To realise the overall function and value of the system, all parts of the system have to give full play, in addition, new functions formed by the interconnection and cooperation have to be explored.

This research uses a systematic concept to combine SPP motivations in a novel way, which has not been discovered by researchers in the literature to date.

Research objective 4 – ‘To explore the value and role of demand orientation in SPP theory and practice’.

This research was initially discovered through a review of literature which found that demand has been ignored in current studies about SPP.

After theoretical extension research and SPP practitioners' point of view, it is concluded that SPP should be ‘demand-oriented’, which is a significant research result. SPP is required by public demand, and demand-oriented is relative to government operation strategy. Demand orientation is guided by the social norm and the people-centred concept. The government complies with public demands, provides public goods and services based on public needs and assumes service responsibilities. ‘Creating public value’ is the ultimate goal of government management, and its value comes from people's expectations and perceptions. The significance of this result not only determines the unified direction of the entire power system, but also creates a synergy, and finds the public power that has long been ignored. Satisfaction with public demand can mobilise the public's great incentive to join the SPP, and public participation can better achieve the SPP goal.

Based on previous chapters discussions, there are significant contributions have been achieved within this research,

- Research has followed the system thinking, extend previous studies on single motivation, and contributed on designing an exploratory and comprehensive SPP motivation conceptual framework;
- Research has highlighted the system-based characteristic of SPP motivation, and proved the value of 'demand-oriented' as SPP direction;
- Research has revealed the internal motivation of SPP. It has indicated the value-based and interest-based influence as well as people-centred power throughout SPP;
- Research has suggested new direction of learning SPP motivation which is a multi-disciplinary methods.
- Research has also connected literature findings with practical research analysis to enrich the theoretical findings and practical implementation. It will help further research in SPP motivation.

The following sections will explain the contributions in both theory and practice in details.

### ***7.3 Contributions to the theory***

#### **7.3.1 Developing a system-based framework**

Previous studies have focused on individual drivers or local case studies of SPP practice and analysis is usually interpretive. The SPP

motivation study shows a limited range of focuses. Therefore, this research provides a comprehensive conceptual framework for the SPP motivation mechanism under the guidance of system thinking, which is an open system structure (Figure 6.2).

The framework characteristic proposed in this research is that the SPP motivation mechanism can be considered to be composed of multiple motivation factors. It is an open, hierarchical, and connected complete structure. This framework demonstrates a complex SPP motivation system that requires a balance between the system environment and internal elements.

Internal motivation is a factor that originates from the subject itself and can be determined by the subject itself as well, and it relies on the values and interests of the SPP stakeholders. Internal motivation has the characteristics of instinct, consciousness and self-driving, and is the driving force for the behaviour of SPP stakeholders. External power originates from the environment and is a factor that can affect SPP participating subjects, but the subject cannot decide the effect. External motivation has the characteristics of restraint, motivation and compulsory compliance, and it is the external force of SPP stakeholder behaviour.

People occupy a decisive position in SPP activities, and the nature and extent of SPP behaviour varies from buyer to buyer. Interests dominate the knowledge and thinking of SPP participants, affect their judgment of things, and determine their choices. Internal power factor is the main source of power of SPP and the fundamental power. External motivation factors often need to act through internal factors. Benefits are the fundamental driving force

of SPP, and interest regulation is also the core of SPP's motivation mechanism.

The SPP needs to be promoted by external power, as well as pulled by internal power, and to promote the smooth implementation of SPP through internal and external drive integration. Inefficient or failed public procurement is mainly a passive external promotion model, with extensive and loose characteristics; and efficient and successful SPP often stimulates internal motivation of stakeholders and achieves sustainable procurement through value recognition and benefit sharing.

With the development of SPP, the driving factors are still emerging. It is due to the involvement of human factors that the complexity could constantly last increasing. However, a single driver and a simple patchwork drive cannot form a positive boost to SPP. Therefore, it is necessary to explore and understand the SPP motivation mechanism from a holistic perspective, which is precisely the significance of this research.

Under the guidance of system thinking, it is the first time in SPP research that integrates and discusses external drivers and internal drivers together. It goes beyond the previous research on local and individual motivation elements, which could contribute to solve broader SPP problems and improve the theoretical research in this field.

### **7.3.2 Implementation of 'demand-oriented' within SPP**

Orientation in this research means the direction of power. When different powers are gathered together, the wrong direction or different consistency will cause resistance. The correct direction as well as a same goal-driven direction are the driving forces. This research on the motivation mechanism of SPP emphasises systematic design and purposefulness, and is an important achievement in determining the direction of SPP power, that is, demand-oriented.

Public sector organisations have significant misunderstandings in the process of advancing SPP. Public procurement is naturally government-led, top-down pressure and government-oriented decision making is a habitual model. However, bureaucratic governments may be government-centric and lack of sufficient attention and response to public demand (Grandia, 2015). Information asymmetry and lack of public goods demand preferences may lead to imbalances in supply and demand. Moreover, public procurement prefers to only emphasise price and efficiency (Chiarini et al., 2017), which may result in wasted and inefficient public procurement resources, and ultimately deviate from sustainable goals. SPP is no longer suitable in a government-led strategy and become hard to achieve sustainable development goals (Haukipuro et al., 2017).

People tend to ignore the orientation of SPP motivations. The orientation of SPP refers to whether public procurement starts from the government itself or from the needs of citizens. Demand-oriented is relative to government-oriented. This research

contributes on developing a strong sense of demand orientation in SPP and demonstrating the necessity and feasibility of 'demand-oriented'.

SPP serves the sustainable development goals of public governance and public services. Public procurement is not primarily intended to enhance the supply of products and services, but to address public needs or sustainable development (Keulemans & Van de Walle, 2017). The government is not oriented to improve its own efficiency, nor the problems and propositions it faces, but should focus to the fundamental needs of the public. The goal of governance is to meet the needs of the public and enhance the well-being of citizens. It could beyond the government's own interests while the public administration efficiency becomes the ultimate value of the government. On this basis, the government not only gives citizens the right to express their interests, but also encourages citizens to participate in the process of achieving the public interest goals within the community (Denhardt & Catlaw, 2014; Denhardt & Denhardt, 2000). From the beginning to the end, public demand – 'for all human development and people's all-round development' is the core responsibility for any government and public organisations. The values and behaviours of different stakeholders and public are gathered in this direction, which have been integrated into the framework as drivers of external 'push' and internal 'pull'.

### **7.3.3 Determining 'people' impacts on SPP motivation**

Previous studies have mostly been based on the idea that SPP is an activity that has to be promoted (Grandia, 2016). Environmental factors and external pressures lead to compliance, and strengthening these pressures or excluding external resistance is the main motivational study to promote SPP (Ahsan & Rahman, 2017). This notion ignores the decisive role of procuring entities and stakeholders in SPP (Petersen & Kadefors, 2016). Personnel is both a source of SPP motivation mechanism complexity and a key factor in the success of SPP.

Demand is the fundamental driving force of human behaviour. The occurrence of any social behaviour has its internal motivation. The generation of motivation is based on the need on the one hand, and on the other hand, it is to stimulate the situation - the incentive for the condition, the social activity is continued under the push of the inner needs and the stimulating situation. At the same time, the generation of motivation is also regulated by individual social life experience and social living conditions. For example, social emotions, beliefs and values formed in socialisation directly restrict behavioural motivation. Therefore, instinctive factors, incentives, motivations, needs, beliefs, social feelings and values have combined to form a motivation system of social behaviour.

The research reveals the mechanism of SPP internal motivation. According to the previous findings, it can be found that the external system of SPP has great complexity, but the complexity of the internal factors caused by people is far more than external factors, and the role of external factors is also through humans. The internal

factors are determined by people's values and interests throughout SPP. Therefore, there may be different SPP options in the same environment. Under the same conditions, SPP behaviour may have different results. The guidance and motivation for SPP participants depends on the perception and satisfaction of their needs and interests, rather than arbitrary acquisition or deprivation.

This study clarifies the reasons resisting the long-term success of relying on external power or government forces to promote SPP. It proves that internal powers based on values and interests are the fundamental driving force of SPP, and the public is the end user of public procurement. The driving force of the public is the main force of SPP success. This research provides a strong theoretical basis for the in-depth study of the comprehensive SPP motivation mechanism.

#### **7.3.4 Breakthrough in theoretical research**

This research uses a combination of qualitative research and systematic thinking. The concept of the system is used to support the framework proposed in this work. The detailed components are provided through the application of literature research and qualitative research. The main reason comes from advantages of each method.

The comprehensive framework of the SPP motivation mechanism established by the research fully embodies the provisions of the SPP power system guidance, the analysis of the power source and the relevance of them. Achieving this result is to abandon the traditional

SPP research that offer a single-angle interpretation based on the different values and different academic area. The research did not follow the traditional economic and administrative research paradigm, instead created a kind of system thinking. The system thinking implemented in this research contributed in expanding the research perspective and taking cross-subject theoretical perspective. For example, there have been taken in consideration on sustainable development theory, SPP theory, stakeholder theory, psychological theory (TPB), and governance theory. This is also a unique exploration of the research methods in this research.

This research not only bridged the gaps in the current literature on the SPP motivation, but also established a more completed and comprehensive conceptual framework that considered the uncertainty of human-involved factors and demand orientation. Within the research, the use of literature research and empirical analysis to focus on in-depth interview have supported in creating a bridge between case studies and theoretical development (Du, 2017).

#### ***7.4 Contributions to practice***

This research has made a meaningful contribution to both scholars and practitioners.

Governments increasingly use government procurement as a strategic tool to achieve their mission and broader policy objectives.

(OECD, 2017; Quak et al., 2019). WHO (2016) stated that the aim is to ensure that all people and communities have access to quality, safe and acceptable health services. To make this goal achievable and sustainable, it is necessary to expand cost-effective and effective service delivery methods. Continuous procurement is required to face the dual challenge of controlling the cost of medical services and ensuring fairness in the provision of medical services. Research in practice has shown that some countries have made good progress towards universal health coverage with low levels of expenditure, while the others have only achieved even more if they spend more. And many regions remained in a lower level of health service coverage. This illustrated the need to change public procurement. In this regard, some theoretical and practical findings confirm the value of implementing strategic purchases (WHO, 2016). The concept of 'strategic purchase' has been further developed in this research combined with discussion on strategic procurement and governance. The conceptual framework developed in this research also aims to improve the health service situation. This research provides the government with a lens to re-examine the concept of governance, more emphasis on who it serves, what services it provides, fairness and impartiality, and its own responsibilities. Effective procurement practices have the potential to advance the development of SPP in this area.

Previous studies have tended to external environmental pressures and lacked attention to the internal motivation of SPP procurement organisations and procurement personnel. The framework provided by this research provides a mechanism for the internal drivers of participants. In this respect, through the in-depth study of

psychology, organisational behaviour and other theories, we can use the psychological mechanism of demand, motivation and behaviour to stimulate, guide and maintain some motivation state of SPP participants through policies, institutions and contracts, and form incentives. Maintain the level of internal drive. The research and control of the internal driving force can not only form SPP consciousness and persistence, but also promote the improvement of external motivation performance. The research prospects in this area are very broad.

The SPP motivation mechanism framework proposed in this work can be regarded as practical value for SPP researchers and practitioners. The framework utilises a strong theoretical foundation and system thinking, which not only expands and deepens the SPP driving factors and motivation mechanism. The observation field and application space, and become a general guide for further research and implementation of SPP in the future.

The SPP motivation conceptual framework proposed in this research provides three practical recommendations:

The first practical proposal was supported by a topic and research questions. It is recommended that public procurement stakeholders thoroughly explore the various drivers that contribute to the SPP development. Some factors are derived from environmental external factors, some drivers are unobserved internal factors, and sustainable public procurement is affected. The combination of raw and external factors. The sustainable development of public procurement is not the result of a certain factor, but the result of a combination of factors.

The second practical recommendation is to pay attention to and explore the connections established between all drivers. The driving force of SPP is a system in which various factors interact and internal factors are decisive. Research results and research show that interests and needs are the fundamental driving factors. The main decision-making power of external factors is in the hands of people, and internal factors such as human values, interest pursuits and commitments determine their behaviour, and ultimately decide outside. The nature of the factors and how to deal with the environment. There have been many obstacles in the operation of SPP in the past. A comprehensive utilisation of internal and external factors is fully considered. These obstacles are not insurmountable.

The third practical recommendation supported by the themes found in research and literature is that sustainable public procurement needs to be demand-oriented, people-centred, and meeting the needs of the public for sustainable development reflects current social trends. Emphasise demand orientation, establish demand expression mechanisms, and accurately predict future customer needs, identify public needs, provide quality services to the public, and meet public expectations. Moreover, the driving force for sustainable public procurement ultimately lies in the awareness and participation of the public.

### ***7.5 Limitations of this research Limitations of research***

The following discusses a range of possible limitations that may affect the conclusions of this study. Given the series of limitations

discussed in the following sections of this chapter, the conclusions presented in this research should be considered as providing information for theory and practice, and should serve as a starting point for further discussion, reflection, and research into the motivation mechanism of sustainable public procurement.

By exploring the limitations of this study, a range of areas for future research can be identified, and these areas are discussed in Section 7.7.

Participants in this study were limited to stakeholders identified by the researchers in the area of primary health sustainable procurement. This means that individuals who may be affected by public procurement and may affect sustainable primary health procurement are not included in the study if they do not hold formal positions in government, relevant colleges or primary health organisations. In addition, strong stakeholders in sustainable primary health procurement that are not in China and Beijing, such as those in the WHO and other areas of primary health procurement, are not included in this study. Therefore, the current study provides local rather than international perspectives related to sustainable primary health procurement in Beijing.

The scale of the sample covered in this study, including stakeholders for sustainable procurement of primary health care, can also be considered a limitation. Since this study involves a purposeful sampling approach for collecting in-depth information on research topics, sampling does not represent more stakeholders, which is related to random sampling. This study only surveyed one respondent within each organisation. Although respondents have

sufficient capacity to properly answer all survey questions, one respondent cannot represent all aspects of the entire organisation. Although single respondents are randomly selected, there is no guarantee that one respondent is someone who understands all aspects of the survey. Therefore, the results of current research may not be extended to countries around the world. Limitations should also be considered when applying these findings to countries and territories with similar demographics, culture, and primary health systems. In addition, the public was not included in the study, although they could also be considered as stakeholders in procurement.

Research issues involve interdisciplinary and cross-disciplinary approaches, and the experience of researchers in sustainable public procurement may have an impact on the scope of his initial contact with sustainable public procurement knowledge. Initially, researchers were only engaged in academic literature research in supply chain procurement because he worked in an academic environment. However, the researchers did explore a wide range of academic and practitioner literature related to the research topic (to ensure completeness) to confirm that the scope of sustainable public procurement that led to data collection was appropriate, involving the project practitioners.

Another limitation of the study is that information related to sustainable primary health procurement is based on the responses of the study participants and is not necessarily comprehensive. This is because other factors, not mentioned in the interview, including international political influences, and local implicit agreements

between government agencies and companies, are likely to affect sustainable primary health procurement, but not necessarily obvious. Another example of invisible forces that may be involved, but not mentioned in current case studies, includes personal preferences, prejudice, and regional favouritism of government officials and business leaders. In other words, the concept of political performance may play a role. Why some unsustainable procurement behaviours may be favoured under certain circumstances, rather than sustainable behaviour, even if this case study does not include this, interview participant's purposeful sampling may have also identified relatively similar subjects, as only a few scholars, medical organisations, and government leaders have been contacted. For example, other government-related department representatives, licensed health care workers, and a wider range of patients and organisations were excluded from the study.

Due to the nature of the methodology used in this case study, this is a qualitative phenomenological case study involving interviews, similar to other studies involving interviews, which were developed by researchers and did not assess their reliability or effectiveness. The researcher's personal experience in sustainable public procurement (taking into account his background in sustainable public procurement and general management research) and personal perceptions may influence the analysis of the data, which may lead to a distorted interpretation of the data, as this is considered inductive feature that exists in the qualitative analysis work. This is a general limitation of the induction method. When exploring the internal factors as an important factor and

determining the important role of demand orientation, as in the case of this study, it is considered appropriate. To alleviate this situation, a large number of data were obtained that met the literature recommendations (Mason, 2010; Saunders et al., 2012). Further data was collected for framework validation. It involves the adoption of data and compares the results produced by different data areas to ensure consistency. This helps ensure that the results are data-based rather than researcher-based. Researchers can also ask follow-up questions, explore more in-depth answers, and clarify any questions asked by interview participants. This process helps to increase the credibility of the interview data.

The validation process carried out in this work introduced the motivation public procurement motivations framework to three experienced sustainable public procurement scholars and practitioners, and helped establish the 'real' worldwide by bringing them into contact with them. Its actual availability. However, there are some limitations in this process, mainly because the theoretical framework has not been tested by applying it to actual procurement activities, but rather a range of experienced sustainable public procurement experts and practitioners. Then collect and analyse the framework to make some improvements to the framework and future research directions.

Validation provides some valuable insights into the importance of investigating and addressing areas of 'driver' and 'demand-oriented' and the need to underline investigations into further areas. Based on the opinions of experienced sustainable public procurement practitioners working in the industry, based on their thorough, but

theoretical understanding of the framework, this does not provide the same level of assurance as actual testing to confirm the theoretical framework in actual procurement practices. To address this limitation, it is recommended to validate the framework by applying the framework to real life projects.

### **7.6 Future research**

After discussing the limitations of this work in the previous section, there have been some areas for future research. Although progress has been made in increasing theory and practice, there is still a lot of work to be done in order to improve the integrity and usefulness of the framework presented in this work.

Overall, the conclusion of this research is that there is still a certain distance between the initiative to consciously use the driving factors of sustainable development of public procurement and the motivation mechanism procurement practice. If the public sector is to effectively promote sustainable procurement, it needs to conduct a more in-depth investigation of the drivers and motivation mechanisms that influence sustainable procurement. This research can be found that public sector decision makers still lack demand-oriented awareness and knowledge. Otherwise, despite various efforts and efforts, sustainable development cannot be achieved in the procurement process.

The biggest contributing factor is the clarification of the position of demand orientation in sustainable procurement. The concerns expressed by participants in this study echoed the problems

encountered in many countries and regions in primary health procurement. The development and use of a sustainable public procurement motivations conceptual framework can reveal the status and role of those drivers. Perhaps the most inspiring finding is that among all outcomes, there is a consensus on the desire for a proactive approach to demand-driven sustainable procurement.

Future research will further test this, examine how public demand becomes a guide to sustainable public procurement, and then review how to better achieve its guiding role. At the time of writing, there are vague goals and policies in the implementation of primary health sustainable procurement, such as public demand discovery, the path of demand expression, and the establishment of appropriate systems. Although there is a consensus on reflecting and meeting public needs, there is no clear norm in procurement implementation, and there is almost no additional guidance for practitioners and decision makers. Will better policies and systems improve the sustainability of public procurement? Will it improve the ability and performance of procuring sustainable action? Alternatively, has it only increased the awareness of sustainable service awareness?

This research has focused on case study from a region of Beijing. Future research can expand to a larger extent and examine trends in developing countries or other countries. Are there other elements of SPP motivation? Demand-oriented procurement in other public sectors explores what sustainability means to them, and how to better align sustainability internal drivers with external drivers. The discussion of the sustainability of public procurement in different

areas may be different, but will it have the same value when applied to public procurement in other areas?

In addition to recommending studies to validate the results of current research and expand the population and psychological variables, the results of this study can also serve as a basis for exploring quantitative research (Cronin, 2014; Duxbury, 2012; Yin, 2013). Quantitative research can support a sustainable public procurement framework to achieve a ranking of the importance of the survey area to better understand the impact nature of its different drivers and to weigh it to better understand their sustainability of procurement practices. Relative impact.

Future research will also require continuous validation of the framework to ensure its effectiveness and relevance. This validation process needs to be extended to the core of the survey area as the basis of the framework to ensure its continued value and relevance, and further exploration, especially in the areas of 'internal factors' and 'demand-oriented'. Investigations and solutions will be identified as particularly updates which could be important in the framework validation process (Oruezabala & Rico, 2012; Vermeeren, 2014; Zhu et al., 2013). In order to ensure the framework components, the relevant components that represent state-of-the-art situations in SPP, require new data to enable more detailed analysis on all the internal and external drivers and motivations.

## ***7.7 Reflections on the researcher's research experience***

For a researcher who has never practiced in the medical field, the cross-disciplinary research experience that has been experienced in the past few years has many insights into the research process and lessons learned along the way. Given the empirical nature of the learning that emerged during this journey, reflection is rooted in the conceptual experiential learning cycle provided by.

Part of the motivation of the researcher for this study stems from his learning and exploration in the past supply chain and procurement, while at the same time ensuring human health, eradicating poverty, and improving people's quality of life through sustainable public procurement. This motivation leads people to believe that the contributions to theory and practice can be achieved through the research presented in this study.

The researcher began with the 'idea' and believed that this study will fundamentally change the theory and practice of sustainable public procurement (Back to Figure 1.1 the original design of research). The conclusion of the element is that the practical significance of this topic goes far beyond the original idea. This has prompted researcher to devote to this work over the past few years, with in-depth research in areas such as public administration, primary health care, and sustainable procurement. This is also one of the lessons learned during the research process and is the result of the 'active experiment' part of the learning cycle.

Reviewing the research experience, the researcher found that the most difficult aspect of this research program is multidisciplinary

literature review and data analysis using qualitative research. The researcher found that the processes associated with these processes are complex, and that researcher need sufficient time to achieve the necessary clarity in order to make the necessary progress, and ultimately establish a motivation conceptual framework for inquiry-based integrated sustainable public procurement.

The SPP motivations conceptual framework developed in this research has involved plenty of relevant theories and results in the process of continuous research. It is worth noting that when the research is written and proposed to defend, it is necessary to consider various readers. Given that this study involves interdisciplinary and field considerations that take into account the content of different readers' thoughts and work, not for themselves.

### ***7.8 To conclude***

The contribution of this research to the knowledge and practice of SPP motivation (including the decisive role of internal motivation in SPP and the importance of demand-oriented) comes from the construction of a novel, system-based conceptual framework of motivation mechanisms. See Figure 3.1, 6.1, and 6.2.

The important role of SPP in the primary health field and the lack of current theory and practice have brought great challenges to countries and regions, which proves the necessity of this research. Research fills a gap in this area, which contributes to the development of SPP theory and practice in this field.

With the help of system thinking and multidisciplinary theory, the comprehensive research method is the basis of the framework of the SPP motivation mechanism concept proposed in this work. In the SPP study, qualitative research methods are considered necessary to understand the uncertainty and complexity of human factors in procurement activities. The conceptual framework presented in this work provides the basic path for future sustainable procurement theory and practice.

Through this research, the researcher has improved the overall academic integrity and intend to make more contributions in the future exploration and research in the SPP field.

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## Appendices

### ***Appendix 1 Interview Participants Summary***

Department	Job title	Interview	Length	Name No.
National government				NG
WHO	director-general Professor	1	1	NG1
NHF	Primary Health Care Department Director	2	2	NG2 V3
NHF	Director	1	1	NG3
City Government				MG
Fiscal	Director	1	1	MG1
Human social security	Director	1	1	MG2
Health	Deputy director	1	1.5	MG3
Health		1	1.5	MG4
Health	Director of the drug	1	1	MG5
The community association	Director	2	1.5	MG6
Community management centre	Deputy director	1	1	MG7
Hospital authority	Deputy director	1	1	MG8

District Government				DG
Fiscal	Deputy director	2	1.5	DG1
Health	Deputy director	1	1	DG2
Health	Deputy director	1	1.5	DG3
Community management centre	Director	1	1.5	DG4
Experts				EP
Peking	Academician	1	1	EP1
Peking health	Professor	2	1.5	EP2
Peking health	Professor	1	1	EP3
Tsinghua	Professor	1	1	V1
Peking national research	Professor	1	1.5	EP4
Peking national research	Professor	1	1.5	EP5
Pharmacy	Director	1	1	EP6
Public Hospital				PH
Cancer	The hospital's	1	1	PH1
Tiantan	Director	1	1.5	PH2
Mental	Director	1	1	PH3
Community				CH

Changping	Director	1	2	CH1
Dongcheng	Director	1	1	CH2
Dongcheng	Deputy director	1	1.5	CH3
Haidian	Director	2	2	CH4
Dongcheng	Director	1	1	CH5
Haidian	Director	2	1	CH6
Haidian	Director	1	1.5	CH7
Changping	Doctor	1	1	CH8
Haidian	Director	1	1	V2
Company1	Procurement manager	1	1	C1
Company2	Manager	1	1	C2

## ***Appendix 2 Interview Questions***

1. Is public procurement (primary health procurement) currently integrated into the concept of sustainability? What do you think are the main drivers or impediments to sustainable procurement?
2. How do you evaluate the political drivers? The role of laws and regulations in implementing sustainable primary health procurement?
3. What is the driving role of government policies for sustainable primary health procurement?
4. What factors do you think are economically driven for sustainable public procurement?
5. Do you think that financial resources are positively related to sustainable procurement? What is the financial security?
6. What is the efficiency of fund use and procurement effectiveness in sustainable public procurement?
7. Is "value for money" emphasised? Can "value for money" drive sustainable primary health procurement?
8. Do you understand the impact of the supply chain on sustainable procurement? The basic process of primary health procurement and possible resistance?
9. Can primary health procurement stakeholders actively promote sustainable procurement?
10. The role of procurement-related organisations and institutions in promoting sustainable public procurement?
11. What do you think are the main reasons for the difference in sustainable primary health procurement?
12. Do you think that values and ideas are important drivers of sustainable medical procurement?

13. Is the primary health procurement stakeholder value concept consistent?  
Impact on sustainable procurement?
14. Do you think primary health procurement should be government-led? What is the government's responsibility for sustainable procurement?
15. Do you think that demand is a driver of sustainable primary health procurement?
16. How does primary health procurement identify and assess needs?
17. Can the procurement participants coordinate to meet the demand? What are the main motivations and resistances?
18. Do you think that sustainable primary health procurement should be considered strategically?
19. Does the World Health Organisation advocate that strategic purchases can promote sustainable procurement?
20. Please comment on the sustainable primary health procurement management system.
21. What other factors do you think are the driving factors for sustainable procurement? What do you think is the most important force driving sustainable public procurement?

## **Appendix 3 Ethic approval and consent form**

THE UNIVERSITY OF HUDDERSFIELD

Business School Research Ethics Committee

### POSTGRADATE RESEARCH STUDENT ETHICAL REVIEW FORM

Please complete and return via email to [alex.thompson@hud.ac.uk](mailto:alex.thompson@hud.ac.uk) along with the required documents (shown below).

#### **SECTION A: TO BE COMPLETED BY THE APPLICANT**

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Before completing this section please refer to the Business School Research Ethics web pages which can be found under Resources on the Unilearn site (Ethics Policies and Procedures). Applicants should consult the appropriate ethical guidelines.

Please ensure that the statements in Section C are completed by the applicant (and supervisor for PGR students) prior to submission.

Researcher(s) details	GUANGYU SUN
Project title	Demand-oriented sustainable public procurement in health service – a case study of community health service in China
Award (where applicable)	
Supervisor details (where applicable)	Dr. Ozlem Bak and Dr. Nicoleta Tipi
Project start date	September 2015

**SECTION B: PROJECT OUTLINE (TO BE COMPLETED IN FULL BY THE APPLICANT)**

<b>Issue</b>	<b>Please provide sufficient detail for your supervisor to assess strategies used to address ethical issues in the research proposal. Forms with insufficient detail will need to be resubmitted.</b>
<p><b>Aims and objectives of the study.</b> Please state the aims and objectives of the study.</p>	<p>The aim is to find out how the demand-oriented sustainable public procurement within health service supply chain impacts on community health service management in China. There are three objectives in this research.</p> <p>The first objective is to develop a conceptual framework on demand-oriented sustainable public procurement. It focuses on the theoretical understanding of both demand management and sustainable public procurement to see the existed similarities and potential linkages.</p> <p>Secondly, it is to discuss the specifications of procurement in health service industry and particularly in community level. It will concentrate on the health service management within supply chain network and the procurement issues throughout the health service supply chain.</p> <p>Finally, the third objective is to learn the demand in community health service based on real cases in China. It will cover the learning of actual CHS demand and the investigation of actual procurement management in related public organisations or government.</p> <p>At the end, based on the theoretical findings, there are some impacts that sustainable public procurement can create for community health service after combining the demand management. As there is going to have a series of big changes and revolutions on China's health service industries in next 3-5 years, this research hopes to contribute on improving current public procurement for being sustainable and offering the possible changes that can be made by developing demand-oriented sustainable public procurement in community health service.</p>
<p><b>Brief overview of research methodology</b> The methodology only needs to be explained in sufficient detail to show the approach used (e.g. survey) and explain the research methods to be used during the study.</p>	<p>This research will apply case studies in learning the actual demand and procurement management in different Chinese communities in Beijing. Within case studies, this research will concentrate on using interviews to collect data from different participants. The interviews will be held in either structured or semi-structured, and will be organised in face-to-face conversation, phone calls, and email or other online dialogues. The amount of interview participants will be about 30 people in different job titles, departments of government and health service centres, and experts in particular area. The recording or writing documentaries of interview data will be re-organised after interviews and stored into personal computer and then copied into university's personal storage drive.</p>
<p><b>Does your study require any permissions for study?</b> If so, please give details</p>	<p>Yes. The interview will require the permissions from involved participants and their organisations.</p> <p>In this research, some of the interviewees are working for government and some parts of interview will be asked for permission on whether there are security and safe concerns. Similarly, another part of participants of interview will be officers and managers in hospitals or health service centres and medicine</p>

	companies. The questions on procurement processes and policies may be allowed to ask and collect the answers.
<p><b>Participants</b> Please outline who will participate in your research. Might any of the participants be considered 'vulnerable' (e.g. children)</p>	<p>In this research, there are three parts of interviews that go through different research questions and cover different participants in various job titles and departments in organisations.</p> <p>Firstly, the interviews will focus on the official managers from national level to community health service centre. In steps, they are managers and officers of National Health and Family Planning Commission of the People's Republic of China, Beijing Health and Family Planning Commission, community health service managers in either national office or Beijing government, and case communities' managers in different departments.</p> <p>Secondly, the interviewees are acting varied roles in a supply chain management perspective. For example, there are participants that are working in purchasing office, supplier management office, tendering and bidding offices, and etc. Also, there are a quantity of participants from selected medicine companies. They are some of main medicine or equipment providers of national health service organisations.</p> <p>The third part of interview will discuss some specific questions with relevant experts and professionals in university or public organisation in China. They are planned to offer some discussions on current problems found in previous interview and potential risks based on current development in China's community health service and public procurement.</p>
<p><b>Access to participants</b> Please give details about how participants will be identified and contacted.</p>	<p>In this research's interview, there are three sets of participants that will be involved into data collection. For the government officers, the recruit process will be firstly by emails in order to introduce research and interview design. After permission of interview, a phone call or further email will be used to organise interview date and time.</p> <p>Second part, the managers in medicine companies will be contacted with emails or phone calls at the beginning. Interviews will be held in their offices or their companies meeting room as I will be asked for permission to go to their company or industry to have conversation with different departments' managers. This may require more than one time of meeting and each time meeting will be pre-determined with time and place for interview and the interviewees' availability.</p> <p>Thirdly, professionals and experts in universities will be contacted by email and phone calls based on personal relationships and previous study experiences. Some of the professors are recommended by parents, previous classmates, and friends.</p>
<p><b>How will your data be recorded and stored?</b></p>	<p>During the interview, if permitted, the first type of data will be stored in voice recording. This will happen in both face-to-face interview or phone call conversation and email or online discussion. Alternatively, writing documentaries and conversation diary will also support the data collection. At the end, all the recording or meeting summary will be re-organised into Word files. The permitted voice recording will be firstly stored in removable device (smart phones or recording devices), and then copies will transfer to personal computer storage drive and university storage. Similarly, the writing summary and organised interview summary will store into university's computer drive as copy.</p>
<p><b>Informed consent.</b> Please explain how you will inform your</p>	<p>For this research, interview participants have full rights of learning every details of current outcomes of research and future plans of research. In addition, interview participants have rights to decide</p>

<p>participants about the study and whether they will be in a position to give informed consent.</p>	<p>whether to accept interview and allow the data to be used in my research after a full introduction about research and interview designs.</p> <p>As a preparation of interview, two parts of consent form have been set in a separate file (Appendix – Participant Consent Form). The first one is a basic introduction of research consists of research question, aim, objectives, research plan and current outcomes, interview design plan and expected results, methods of data collection and storage as well as safety.</p> <p>The second form is an official Participant Consent Form from The University of Huddersfield Business School Research Ethics Committee. Some of the original statements could be modified to be appropriate to this research.</p>
<p><b>Right to withdraw</b> Please identify whether you are offering your participants a right to withdraw from the study and/or to withdraw their data from the study and how this will take place. If you are not offering a right to withdraw, please explain why.</p>	<p>In this research, every participant has right to withdraw their interview data at any stage of my research. However, there could be two unusual issues that may happen during the research:</p> <p>Firstly, if the participants want to withdraw the data that refuse to offer their interview data before any parts of my research has been published or submitted, I will accept the data withdraw and hand out all the stored data to participants as well as deleting copies. There are two alternative plan to refill the withdrawal data. One is to select another interviewee with similar job position and familiarity of particular issues. The other is to re-discuss with the specific participants and look forward to refine some questions of interview in order to be allowed to do the interview again.</p> <p>Secondly, if the participants want to withdraw the data after some parts of my research have been published or submitted, an additional discussion will be held between interviewee and me. As part of the research introduction and basic information explanation, participants will be aware of how long my research will continue and on which part of my research will use their interview data. In addition, before any publishes or submissions, I will notice every quoted participant that which parts of their interview data have been referenced and where I am going to publish or submit.</p>
<p><b>Confidentiality</b> Please outline the level of confidentiality you will offer respondents and how this will be respected. You should also outline about who will have access to the data and how it will be stored. (This information should be included on Information your information sheet.)</p>	<p>There are two places for keeping and protecting data storage. One is my personal computer which has set password for power up and the other is copied in University's K-drive which can only be viewed by myself with username and password.</p> <p>During the later research, any quoted writing will apply participants' name in pseudonyms. Some of the job title will be used to explain focuses while the others will not be mentioned as there are specific job titles that can be easily categorised with participants.</p>
<p><b>Anonymity</b> If you offer your participants anonymity, please indicate how this will be achieved.</p>	<p>In this research, all the participants of interview will be provided with anonymity protection as their names in research will be in pseudonyms.</p>

<p><b>Harm</b> Please outline your assessment of the extent to which your research might induce psychological stress, anxiety, cause harm or negative consequences for the participants (beyond the risks encountered in normal life). If more than minimal risk, you should outline what support there will be for participants. If you believe that there is minimal likely harm, please articulate why you believe this to be so.</p>	<p>Currently, the design of research has not provided any harm during the interview or writing session.</p>
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**Retrospective applications.** If your application for Ethics approval is retrospective, please explain why this has arisen.

No

**SECTION C – SUMMARY OF ETHICAL ISSUES (TO BE COMPLETED BY THE APPLICANT)**

Please give a summary of the ethical issues and any action that will be taken to address the issue(s).

**SECTION D – ADDITIONAL DOCUMENTS CHECKLIST (TO BE COMPLETED BY THE APPLICANT)**

**Please supply copies of all relevant supporting documentation electronically. If this is not available electronically, please provide explanation and supply hard copy.**

I have included the following documents

- |                   |   |   |
|-------------------|---|---|
| Information sheet | Yes <input checked="" type="checkbox"/> | Not applicable <input type="checkbox"/> |
| Consent form      | Yes <input checked="" type="checkbox"/> | Not applicable <input type="checkbox"/> |
| Letters           | Yes <input type="checkbox"/>            | Not applicable <input type="checkbox"/> |
| Questionnaire     | Yes <input type="checkbox"/>            | Not applicable <input type="checkbox"/> |

Interview schedule

Yes



Not applicable

University of Huddersfield

*Business School Research Ethics Committee*

Participant Consent Form (Part A)

**Title of Research Study:** Demand-oriented sustainable public procurement in health service – a case study of community health service in China

**Name of Researcher:** Guangyu SUN

**Participant Identifier Number:** U1571114

## Research Introduction

This research is designed based on the knowledge of supply chain management, sustainable procurement in public service, health service, community health service, and demand management. The research topic is 'Demand-oriented sustainable public procurement in health service – a case study of community health service in China. The research aim is to find out that how the demand-oriented sustainable public procurement within health service supply chain impacts on community health service management in China.

In this interview section, there are three parts of interview that will take about 30 participants in different job positions. Generally, the selection of participants follows the designs of research that the first group of participants are working in government departments ranging from national level to community managers. The focus of interviewing these group of people is to learn the current policies and development on public health service procurement in community-based system as well as future strategies in both short-term and long-term. Second part of interview will select participants by their job positions and follow the supply chain network structure.

It aims to see how the health service flows from suppliers to customer and how the demand of service can be learnt from downstream of supply chain to upstream procurement. The last group participants will be experts or professionals in university or other college level. There will be several particularly designed questions offered to these group of interviewees. The main discussion will be existed studies and research within China context on related topics and the gap between theoretical focuses with real issues.

After interview, all the data and writing documents are allowed to withdraw any time. However, if there are some part of data that have been involved in published paper, the withdraw issue could be different. There will be a detailed discussion with each participant about the issue about withdraw of data.

**Participant Consent Form (Part B)**

- I have been fully informed of the nature and aims of this study as outlined in the information sheet version (), dated ().
- I consent to taking part in this study
- I understand that I have the right to withdraw from the research (withdrawal arrangements has been explained on Research Introduction).
- I give permission for my words to be quoted (pseudonym).
- I understand that the information collected will be in kept secure conditions for a period of () years at the University of Huddersfield.

- I understand that no person other than the research/s and facilitator/s will have access to the information provided
- I understand that my identity will be protected by the use of pseudonym in the report and that no written information that could lead to my being identified will be included in any report

**Name of Participant:** .....

**Signature of Participant:** .....

**Date:** .....

**Name of Researcher:** Guangyu SUN

**Signature of Researcher:**

**Date:**

**Appendix 4 Table of Public health service in Beijing**

Number	Category	Service object	Project and content
1	Setting up health records for residents	Permanent residents in the District, including non-resident residents who live for more than half a year.	<ol style="list-style-type: none"> <li>1. Establish health archives</li> <li>2. Maintenance and management of health archives</li> </ol>
2	Health Education	Permanent residents in the District	<ol style="list-style-type: none"> <li>1. Provide health education information</li> <li>2. Setting up a health education column</li> <li>3. To carry out public health advisory services</li> <li>4. Hold a lecture on health knowledge</li> <li>5. Carry out individualised health education</li> </ol>
3	Vaccination	0-6 year old children and other key groups in the jurisdiction	<ol style="list-style-type: none"> <li>1. Administration of vaccination</li> <li>2. Prophylaxis</li> <li>3. Suspected treatment of abnormal immunisation</li> </ol>
4	Health management of children	A permanent 0-6 year old child in the jurisdiction	<ol style="list-style-type: none"> <li>1. Family visit to newborns</li> <li>2. Full moon health management of newborns</li> <li>3. Health management for infants and young children</li> <li>4. Preschool children's health management</li> </ol>
5	Health management of pregnant and lying in women	Permanent pregnant and parturient women in the jurisdiction	<ol style="list-style-type: none"> <li>1. Early pregnancy health management</li> <li>2. Middle trimester health management</li> <li>3. Health management in the late 3. trimester of pregnancy</li> <li>4. Postpartum visit</li> <li>5. Health examination after 42 days of postpartum</li> </ol>
6	Health management for the elderly	Permanent residents over 65 years of age in the jurisdiction	<ol style="list-style-type: none"> <li>1. Life style and health status assessment</li> <li>2. Physical examination</li> <li>3. Auxiliary examination</li> <li>4. Health guidance</li> </ol>

7	Health management for patients with chronic diseases(hypertension)	Patients with hypertension in the area over 35 years old	<ol style="list-style-type: none"> <li>1. Inspection discovery</li> <li>2. Follow-up assessment and classified intervention</li> <li>3. Health examination</li> </ol>
	Health management of patients with chronic diseases (type 2 diabetes)	Type 2 diabetes among residents over 35 years of age in the district	<ol style="list-style-type: none"> <li>1. Inspection discovery</li> <li>2. Follow-up assessment and classified intervention</li> <li>3. Health examination</li> </ol>
8	Management of patients with severe mental disorders	Patients with severe mental disorders diagnosed and living in residence in the district	<ol style="list-style-type: none"> <li>1. Patients information management</li> <li>2. Follow-up assessment and classified intervention</li> <li>3. Health examination</li> </ol>
9	Health management of tuberculosis patients	Pulmonary tuberculosis patients diagnosed in the area	<ol style="list-style-type: none"> <li>1. Screening and referral of referral</li> <li>2. The first visit to the household</li> <li>3. Administration of medicine and follow-up management</li> <li>4. Case assessment</li> </ol>
10	Health management of traditional Chinese Medicine	Residents aged 65 or above and 0-36 months in the district	<ol style="list-style-type: none"> <li>1. Old people's constitution identification of Chinese Medicine</li> <li>2. Children's traditional Chinese Medicine</li> </ol>
11	Reporting and handling of infectious diseases and public health emergencies	Service population within the jurisdiction	<ol style="list-style-type: none"> <li>1. Risk management of infectious diseases and public health emergencies</li> <li>2. Discovery and registration of infectious diseases and public health emergencies</li> <li>3. Reports of infectious diseases and public health emergencies</li> <li>4. Disposal of infectious diseases and public health emergencies</li> </ol>

12	Health planning Supervision and management	Residents within the jurisdiction	<ol style="list-style-type: none"> <li>1. Food borne diseases and related information reports</li> <li>2. Hygienic safety inspection of drinking water</li> <li>3. School health services</li> <li>4. Information report on illegal medical practice and illegal blood supply</li> <li>5. Related information report on family planning</li> </ol>
13	Free contraceptives	<ol style="list-style-type: none"> <li>1. The provincial health and family planning department is the main purchaser of free contraceptives in the region, and the purchase of contraceptives is carried out according to law.</li> <li>2. Provincial, municipal, and county level family planning administration agencies are responsible for the storage and allocation of free contraceptives.</li> </ol>	
14	Health literacy promotion action	<ol style="list-style-type: none"> <li>1. Health promotion county (District) construction</li> <li>2. Health Science</li> <li>3. Health promotion hospital and the construction of smoking cessation clinic</li> <li>4. Health literacy and tobacco epidemic monitoring</li> <li>5. 12320 hotline consulting service</li> <li>6. Health education for key diseases, key areas and key groups</li> </ol>	

**Appendix 5 Table of Overall Coding Summary**

Major Themes	Composite Themes	Composite Codes	Coding Examples	Counts
2. Political factors	1. Law	Laws, regulations, legislation, law enforcement, certification, agreements, contracts, conventions, international law, binding, compulsory, prohibition;	MG7: The law is the most powerful, one is mandatory and the other is fairness; EP2: Legislation promotion in ecological protection is very effective; MG5: Primary health procurement requires regulatory support, and existing regulations are not suitable. Some things cannot be relied upon and are not easy to handle;	34
	2. Policy	Notices, documents, resolutions, announcements, requirements, plans, opinions, advocacy, guidance, policy functions;	MG2: Primary health procurement is mainly driven by policies, especially when the regulations are not perfect; CH1-8: Policy directly stipulates and constrains purchasing options, such as supplier and drug selection C1: Our company mainly studies policies, otherwise we cannot enter this market.	34
	3. Political claims	Politic, ruling party, idea, routine, position, spirit, ideology, attitude, strategy;	NG2: Environmental protection and health strategies are already basic national policies and national strategies that must be implemented. MG4: Keep non-profit on primary health service and refuse profit-based service mode, increase the government input, these are leading requirements for relative procurement. EP3: Solving the problem of 'difficulty in seeing a doctor, expensive medical treatment' and issues of health justice are related to social stability and the position of the ruling party. Therefore, political forces are very effective.	32

4. Regulations and standards	System, structure, institutional, regulations, norms, arrangements, practices, examples, rules, supervision, certification, authorisation, standards, allowance;	CH8: Community medical procurement has relevant institutional norms, such as centralized drug procurement, service project declaration and purchase, which are sustainable guarantees; MG3: The procurement platform has a series of systems, purchases, evaluations, price comparisons, complaints, etc., to ensure compliance and operation with sustainable requirements; C1: The medical system determines procurement, and the changes in the medical system reform are constantly changing the content and methods of procurement. It turns out that some institutional problems will lead to unsustainable	29
5. Supervision and assessment	Monitoring, assessment, political performance, generation switch, job occupation, goals, job report, interest balance, proposals, reports, corruption, punishment, interference, standard, execution, evaluation;	MG2: The People's Deputies and the CPPCC Committee have proposed and discussed the issues in this regard, and put some pressure on officials. EP5: If the performance assessment result cannot reach the goal, the relevant ruler will face job stress. DG1: The government managers may balance the usage of fiscal capital as well as the interests of environment and economy. C1: There are strict standards for our corporate environment and raw materials, and we must meet the standards for production; PH3: Waste and corruption are much better under supervision and pressure;	25
6. Media	Publicity, popularisation of science, multimedia, exposure, events, appeals, stress;	EP4: Incidents can be alarming, spurring short-term improvements that are not being valued for a long time, such as vaccine events, such as SARS, which promotes public health sustainability; DG3: The exposed organisation will lose business opportunities, and the pressure constitutes a supervisory role;	22

			MG1: New media promotes greener and more efficient procurement and service methods, such as online procurement and real-time settlement of medical insurance;	
2. Economic Factors	1. Economic development	Total amount, capability, enough ability, national income, improvement, structure, development, progress, improvement, affordability, sustainability, growth;	<p>EP3: How to meet the primary health needs depends on the national and local fiscal revenues. The scale and content of procurement are based on economic strength.</p> <p>MG2: Low income levels may not lead to illness, and high income levels may lead to over-medical treatment, which is reflected in demand and thus affects procurement.</p> <p>CH3: The economy has developed, and the country has significantly increased its investment in primary health care. The scale and level of procurement have been greatly improved.</p>	30
	2. Finance	Fundraising, taxation, policy, distribution, income and expenditure, fees, purchases, decentralisation, resource allocation, investment, budget, agency certification, purchase subject, transfer payments, subsidies, depreciation, compensation, payment methods, health insurance;	<p>DG2: How much money is going to be done, and the financial support for primary health procurement is the most critical;</p> <p>EP3: For procurement agency identification, public procurement catalogues and certifications are financial decisions, such as green products, cost-effective regulations, to ensure sustainable standards.</p> <p>CH5: Most government-funded construction, personnel income and service project purchases in community medical institutions are also financially funded, directly guaranteeing the sustainable performance of procurement;</p> <p>EP6: There is obvious drawback if the payment methods are simply depending on service-based or people-based. It requires a multi-hierarchy and mixed payment system, which is also a development trend.</p>	34

			CH6: Payment relates to cost allocation. The innovation on payment could relieve the difficulty of receiving health services and the stress faced by organisations.	
	3. Value for money	Results, costs, finances, procurement lists, funding reductions, prices, price/performance, goals, criteria, assessments, social benefits, quality, safety,	MG3: Pursuing 'value for money' will definitely promote sustainable procurement because standards and principles are in it. MG4: The procurement platform needs to compare prices, the first is to look at quality and safety, and the second is price. EP6: The cost is considered as a whole. For example, Beijing's pharmaceutical companies basically move out of the local market, and environmental costs are among them; for example, some special medicines are expensive but related to life, and they should be purchased as much as possible to meet the needs.	27
	4. Procurement efficiency	Capital, efficiency, use, effectiveness, utilisation, waste, cost, savings, cumbersome, tendering, centralized procurement, incentives;	DG1: Emphasise that the efficiency of capital use is very important for sustainable procurement, such as what to buy and how to buy it; CH1-8: Considering the efficiency of purchasing a service, for example, it takes a lot of effort to manually create a health record, but the utilisation rate is very poor; EP6: Sustainable procurement will improve a lot if it solves management fragmentation;	25
3. Supply chain and organisation	1. Organisation	Organisational culture, organisational incentives, leaders, teams, learning, training, collaboration, standardising environmental pressures, codes of conduct, customary methods, risk	DG4: Pharmacy and treatment could help the popularisation of sustainable knowledge and products; MG6: Our CHS industry organisations have a great role in setting norms and strategies; CH7: The government will invite social organisations to participate in the supervision and evaluation of the quality of our procurement and purchase services;	34

		responsibilities, identification acceptance, benefit protection		
	2. Stakeholder	Government, financial department, health department, enterprise, medical institution, logistics, industry management, patients, residents, medical insurance institutions, purchase subject, use subject, undertake subject, supervisory subject, willingness, enthusiasm, distribution, kinetic energy, equity, profit, business, profit, competition	EP4: Government-led procurement, the ideas and preferences of the main leaders at all levels of government are important factors; PH2: The policy determines the enthusiasm of the health care provider and then communicates to the performance of the purchase service. CH2: The scope and basic configuration of community medications are the government's standards. How to seek medical care, what services to provide, and what medicines to purchase depends mainly on policies;	31
	3. Human resources	Procurement staff, medical staff, distribution staff, supervision staff, learning, knowledge, ability, quality, experience, professionalism, training, judgement, levels, encouragement, attitude	EP5: Local government has important role on balance economic development, environmental protection, and people living standards; MG8: In the process of executing procurement, the role of procurement personnel is obvious, and the choice space is large; CH2-5: The human resources of government procurement organisations are scarce, and support for sustainable procurement must be changed; MG2: Service providers' capability impacts on the performance of health service purchasing; MG8: Professional procurement staff are few as well as experts in government departments. This has created	30

			difficulty in 'active purchase' and sustainable procurement process.	
	4. Supply chain	Supply chain, service chain, process, stakeholders, production enterprises, logistics, distribution, coordination, cooperation, interest appeal, impact, pressure, graded referral	<p>C1: Raw material supply, production process and logistics and transportation. All supply chain environmental protection is the basic bottom line, and it is becoming more and more strict</p> <p>C2: The logistic costs in remoted area are relatively higher and it could only be solved by enterprises themselves.</p> <p>CH2: There are plenty of stakeholders involved throughout the primary health service procurement, they may promote to each other or restrict to each other.</p>	17
4. Value and resources	1. Value view	Values, ideas, opinions, beliefs, awareness, norms, positions, human rights, comprehensive sustainability, environmental sustainability, social sustainability, new ideas, new concepts, spirits, convictions, pursuits, conscious behaviours, dominant values, mainstream values, common Values,	<p>MG5: The first thing to do is to change the behaviour;</p> <p>EP6: Values are important, governments and the public change values, and sustainability is more motivating;</p> <p>DG1: Many problems stem from the concept, the concept of procurement is not uniform, and sustainability will form resistance;</p> <p>EP1: Some advances in sustainable procurement are related to changes in values, such as awareness of grassroots health and awareness of big data, which greatly enhances these strategic procurement inputs.</p>	34
	2. Culture	Medical culture, health concept, health culture, organisational culture, social culture, habits, traditions, theory, education, unspoken	EP2: Social civilisation and culture can promote sustainability, such as recycling and moderate medical care;	34

		rules, scientific popularisation, political culture, business culture, public power, cultivation, change, communication, promotion,	<p>NG3: Organisational culture is binding on members of the organisation and forms a convergence of sustainable behavior;</p> <p>PH1: Changes in health culture and medical culture can promote sustainability;</p> <p>CH2: The long-established health culture and medical culture of the residents should be studied. The purchase of services requires individualisation to be worth the money.</p>	
	3. Resources	History, conditions, resources, endowments, differences, pursuits, human resources, inputs, foundations, assets, information, technology, means, tools, methods, paths, support, objective, backward, lack, superior, waste, reserve, integration, technology	<p>NG2: The resources in different regions are different, and the abundant resources have great advantages for purchasing and purchasing services. However, this history is difficult to change at a time;</p> <p>MG4: The social foundation is important in terms of social sustainability. Insufficient procurement talents and insufficient service talents have led to procurement efficiency and performance to a certain extent.</p> <p>MG1: Purchasing now uses Internet and communication technologies to reduce costs and increase efficiency.</p> <p>EP4: There is information asymmetry in health service procurement. Information sharing and communication can promote SPP efficiency.</p> <p>CH3: New technology products help reducing the pollution and increase the efficiency.</p>	31
5. Interests and responsibility	1. Responsibility self-conscious	Government, official, responsibility (different expression in Chinese), obligation, governing program, leadership, task, commitment, conscious, cognition, commitment,	<p>CH7: The government realizes that responsibility is conducive to social sustainability. Primary health care is public service, mainly the responsibility of the government;</p> <p>EP4: Primary health care adheres to public welfare. The government plays a decisive role and cannot be</p>	34

	responsibility, consciousness, function, role, positioning	<p>solved by marketisation. Otherwise, it is impossible to achieve sustainable goals.</p> <p>NG1: Primary health procurement is led by the government. If the government recognizes and fulfils its sustainable responsibilities, it can lead other participants, and this is the internal motivation and commitment.</p> <p>NG3: The concept of development and health is a process of continuous improvement. Now it emphasises 'everyone enjoys health', fairness and justice become sustainable connotations. The government can realise that changing the governance model, the government does not realize that you are off target.</p>	
2. Demand	Needs, motivations, behaviours, levels of demand, changes in demand, externalities of demand, non-competitiveness, health justice, vulnerable groups, political stability, social harmony, polarisation between rich and poor, health needs, demand, material needs, spiritual needs, internal motivation ,	<p>NG1: The need for health and fairness and justice is growing stronger, leading procurement to place more emphasis on social sustainability goals;</p> <p>CH3: The financial contribution, the supplier does not necessarily provide good products, because we do not understand the demand, we invite them to design and transform together in the community, the effect is different;</p>	34
3. Interest	Benefit-driven, interest-seeking, interest protection, central government, local government, government departments, enterprises, medical institutions, employees, long-term	<p>EP1: All parties involved have their own interests, the internal interests are driven by the interests, the procurement is beneficial to them, and how to balance and form synergy;</p> <p>CH2: Self-interest is linked to sustainability, and there is a motivation to satisfy interest demands</p>	34

	<p>interests, short-term interests, political interests, economic interests, doctor-patient relations Collusion, appeal, benefit, personal interest, group interest, public interest, source of power</p>	<p>C1: Enterprises participate in primary health procurement for the benefit, although there are no profits in some aspects, to meet the needs of patients and countries, but also to ensure their survival. EP5: What is important to bring the specific interests of all parties in the implementation of sustainable procurement, the government often cannot balance the interests of all parties, and the power mechanism fails.</p>	
4. Demand-oriented	<p>Real needs, false demand, excessive demand, induced demand, patient needs, medical needs, government-led, government-oriented, demand-oriented, customer-oriented, market-oriented, demand-driven, demand-centric, demand-driven, internal drive, orientation,</p>	<p>CH2: The government does not understand the demand very well. Once the demand is found and the procurement content and methods are improved, the results are very different, so the demand feedback is very important. EP3: Some needs need to be carefully analysed, and procurement does not necessarily achieve sustainable goals because of false demand guidance. For example, just take a slow injection, take medicine casually, and reimburse most of it... DG2: The public health awareness and demand are constantly improving, which has led to the expansion and upgrading of primary health procurement. The main problem is that supply is in short supply. CH6: 'The top-level design is subject to demand-oriented and will bring strategic changes. For example, by purchasing services to change resource allocation, it has already achieved great results, such as 'guarantee basic, strong grassroots' and 'three medical linkage' reforms.'</p>	21

	5. Demand expression	Discovery, expression, request, response, response, feedback, communication, solicitation, channel, path, approach, advice, proposal, complaint, improvement, listening, demand list, demand collection, demand composition,	<p>CH1-8: We are close to the client, and many needs and interests are improved through our relevant departments.</p> <p>DG1: Demand discovery mainly follows expert opinions, NPC deputies' proposals, and direct patient needs come from service organisations.</p> <p>NG2: 'Bottom-up' feedback still found some problems and promoted the formation of the solution</p> <p>EP5: Establish a stable and standardized demand expression mechanism and channel that can facilitate the sharing of information among procurement parties and achieve synergy.</p>	25
6. Strategy and governance	1. Strategy and innovation	Planning, strategy, layout, long-term, overall, comprehensive, system, reform, health system, progress, new means, new technology, Internet, online procurement, organisational innovation, institutional innovation, payment innovation, management innovation	<p>NG2: The country promotes sustainable procurement through linkages between health care, health care and medicine.</p> <p>CH1-3: Community health services are extended from patients to all populations; service cores are shifting from treatment to health management; new health services and health care personalized service package purchases are a sustainable strategic layout.</p> <p>MG5: The Sunshine Procurement Platform is innovative, improving efficiency, maintaining transparency and achieving economies of scale;</p> <p>C1: Sustainable procurement needs to take into account the interests of all parties, and the payment method has a great impact on the interests of enterprises and patients. Innovative payment methods are necessary.</p>	28
	2. Strategic procurement	Centralised procurement, selective purchase, contract service, service package, public health project, undertaking entity, principal	<p>NG1: What to buy and how to buy is a strategy. It is a primary health purchase. What are the problems to be solved? If the money is effective, it will be sustainable.</p>	22

	agent, contract, contract service, forward-looking, partnership, supplier, bidding, competition, medical insurance fund, medical insurance payment, patient participation Public satisfaction, social harmony, health for all	MG4: Now pay attention to this issue, pay more attention to the overall effect and create value in terms of procurement content and methods. PH1: There is a lack of regulations and coordination mechanisms among government departments, which leads to fragmentation of management, resulting in problem transfer, conflict of objectives, individual governance, and reduced citizen satisfaction.	
3. Governance and cooperation	Negotiation, decision-making, political participation, regulation, negotiation, cooperation, top-down, bottom-up, democracy, decision-making, department, fragmentation, UN, WHO, international agreement, international public opinion, infectious disease flow, interaction, good governance	NG3: Primary health procurement involves international sensitive issues such as human rights and poverty eradication. NG1: The guidance provided by the World Health Organisation in providing policies and standards is highly visible. MG6: Public procurement should be a complex process involving multiple entities. It turns out that traditional top-down national regulation methods have drawbacks. The broad participation of multiple entities and the inter-subjects collaboration is a trend.	28
4. Participation	Public, social organisations, community medical institutions, patients, enterprises, CPPCC representatives, NPC deputies, CPPCC members, third-party institutions, non-medical institutions, discussions, forums, suggestions, suggestions, feedback, questions,	CH4-8: Public appeals reflect their urgent demands, and our feedback will affect purchasing decisions. EP1: The starting point and the foothold of demand-oriented primary health procurement are to meet the health needs of residents. This requires community residents to participate, express their own interests and create good conditions for demand-oriented mode.	32

		consultations, proposals, assessments		
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**Appendix 6 Table of final comparing results of research findings**

Literature Findings		Major Themes	Data Analysis Findings		
Theoretical Themes			Composite Themes	General Themes	Composite Codes
Brammer et al., (2011); Giunipero et al., (2012); Oruezabala (2012); Testa et al., (2012); Zhang (2014); Hasselbalch et al., (2014); Smith and Terman, (2016);	1. Law	1. Political factors	1. Law	Legal norm Legal sanction Legal system Fairness and justice	Laws, regulations, legislation, law enforcement, certification, agreements, contracts, conventions, international law, binding, compulsory, prohibition;
Walker, 2011; Brammer et al., 2011; Ju, 2013; Yin et al., 2016; Zhang et al., 2015; OECD, 2017; Bai, 2018	2. Policy		2. Policy	Policy function Policy guidance Policy interpretation Policy changes	Notices, documents, resolutions, announcements, requirements, plans, opinions, advocacy, guidance, policy functions;
Brammer et al., 2012; Meehan et al., 2017; Roman, 2017;	3. Regulations and standards		3. Regulations and standards	Health system	System, structure, institutional, regulations, norms, arrangements,

Hasselbalch et al., 2014; Smith and Terman, 2016				Procurement system Division of powers and responsibilities System implementation	practices, examples, rules, supervision, certification, authorisation, standards, allowance;
Walker et al., 2009, Brammer et al., 2011; Hasselbalch et al., 2014; Smith and Terman, 2016; Roman, 2017	4. Supervision and execution		4. Supervision and assessment	market access Standard specification social supervision Public interest	Monitoring, assessment, political performance, generation switch, job occupation, goals, job report, interest balance, proposals, reports, corruption, punishment, interference, standard, execution, evaluation;
			5. Political claims	Ideology Normative constraint	Politic, ruling party, idea, routine, position, spirit, ideology, attitude, strategy;

				fundamental policy Post assessment	
			6. Media	New media Educational guidance Supervision pressure Influence decision-making	Publicity, popularisation of science, multimedia, exposure, events, appeals, stress;
Scherer et al., 2010; Mladovsky et al., 2012; Walker 2015; Jiang, 2018; Zhang et al., 2015; Mladovsky et al., 2012; Meehan et al., 2017	5. Economic foundation	2. Economic factors	7. Economic development	Economic growth Income level Government expenditure Quality of social life	Total amount, capability, enough ability, national income, improvement, structure, development, progress, improvement, affordability, sustainability, growth;
Hawkins et al., 2011; Geels 2014; Walker et al., 2009;	6. Finance		8. Finance	financial support budget control	Fundraising, taxation, policy, distribution, income and expenditure, fees,

Brammer et al., 2011; Zhu, 2013				Financial instruments Expenditure	purchases, decentralisation, resource allocation, investment, budget, agency certification, purchase subject, transfer payments, subsidies, depreciation, compensation, payment methods, health insurance;
Egger, 2010; Ismail et al., 2012; Burger et al., 2012; Liu 2013; Bukarica et al., 2013; Yin et al., 2015; Tang et al., 2016; Jiang, 2018	7. Value for money		9. Value for money	Value for money Cost performance Life Cycle Cost Estimation Purchasing strategy	Results, costs, finances, procurement lists, funding reductions, prices, price/performance, goals, criteria, assessments, social benefits, quality, safety;
Brammer et al., 2011; Reuter, 2012; Bratt et al., 2013; Melissen and Reinders, 2012; Giunipero et al., 2012;	8. Procurement efficiency		10. Procurement efficiency	Procurement items procurement cost Demand response	Capital, efficiency, use, effectiveness, utilisation, waste, cost, savings, cumbersome, tendering,

Piening, 2013; Gillingham, 2014; Meehan et al., 2017				Procurement management	centralised procurement, incentives;
Walker et al., 2009; Roman, 2017; Islam et al., 2017; Christensen, Mackey and Whetten (2014); Syed et al., 2018	9. Organisation	3. Supply chain and organisational factors	11. Organisation	Organisational environment Organisational culture Organisational constraints organisation incentive	Organisational culture, organisational incentives, leaders, teams, learning, training, collaboration, standardising environmental pressures, codes of conduct, customary methods, risk responsibilities, identification acceptance, benefit protection;
Diggs et al., 2012; McCue et al., 2012; Wolf, 2013; Claro et al., 2013; Hazlett et al., 2013; Leppelt et al., 2015; Pandey et al., 2016	10. Stakeholder		12. Stakeholder	Procurement subject Collaborative cooperation Sharing mutual benefits	Government, financial department, health department, enterprise, medical institution, logistics, industry management, patients, residents, medical insurance institutions, purchase subject, use

				innovation management	subject, undertake subject, supervisory subject, willingness, enthusiasm, distribution, kinetic energy, equity, profit, business, profit, competition;
Walker et al., 2011; Choi 2011; Pagell et al., 2014; Vermeeren, 2014; Grandia, 2015; Grandia, 2016	11. Human resources		13. Human resources	Leader Purchasers Professional competence Positive mental attitude	Procurement staff, medical staff, distribution staff, supervision staff, learning, knowledge, ability, quality, experience, professionalism, training, judgement, levels, encouragement, attitude;
Preuss, 2009; Meehan et al., 2011; Van Der Valk et al., 2011; Claro et al., 2013; Van Der Valk et al., 2015; Leppelt et al., 2015; Vedel et al., 2016	12. Supply chain		14. Supply chain	Logistics distribution Environmental protection Member collaboration	Supply chain, service chain, process, stakeholders, production enterprises, logistics, distribution, coordination, cooperation, interest

					appeal, impact, pressure, graded referral;
Tang, 2012; Testa et al., 2012; Zhu et al., 2013; Cockerham, 2014; Grandia, 2015; Yuan, 2017;	13. Value view	4. Value and resources	15. Value view	Value concept Dominant values Overall sustainability Common values	Values, ideas, opinions, beliefs, awareness, norms, positions, human rights, comprehensive sustainability, environmental sustainability, social sustainability, new ideas, new concepts, spirits, convictions, pursuits, conscious behaviours, dominant values, mainstream values, common values;
Gonzalez-Padron et al., 2008; Matthyssens et al., 2016; Pinnington et al., 2016;	14. Culture		16. Culture	Medical culture Organisational culture Health culture	Medical culture, health concept, health culture, organisational culture, social culture, habits, traditions, theory, education, unspoken rules,

				Cultural change	scientific popularisation, political culture, business culture, public power, cultivation, change, communication, promotion;
Roberts et al., 2003; Scherer et al., 2010; Burger et al., 2012; Mladovsky et al., 2012; Spence & Bourlakis, 2009;	15. Resources		17. Resources	Resource conditions Resource allocation Social resources Technological innovation	History, conditions, resources, endowments, differences, pursuits, human resources, inputs, foundations, assets, information, technology, means, tools, methods, paths, support, objective, backward, lack, superior, waste, reserve, integration, technology;
Kindornay, 2012; Crespin-Mazet et al., 2012; Gormly, 2014; Hasselbalch et al., 2014; Smith and Terman, 2016; Dr Tedros, 2018;	16. Government responsibility	5. Interests and responsibility	18. Responsibility self-conscious	Government role Government duties	Government, official, responsibility (different expression in Chinese), obligation, governing program, leadership, task,

				The government promised Self-construction	commitment, conscious, cognition, commitment, responsibility, consciousness, function, role, positioning;
Martin et al., 2012; Zhu et al. 2013; Thoms Leppelt et al, 2015; Lotta Haukipuro, et al., 2016; Roman; 2017;	17. Interest		19. Interest	Source power Sharing cooperation Balance of interests Interest inducement	Benefit-driven, interest-seeking, interest protection, central government, local government, government departments, enterprises, medical institutions, employees, long-term interests, short-term interests, political interests, economic interests, doctor-patient relations  Collusion, appeal, benefit, personal interest, group interest, public interest, source of power;

<p>Edquist et al., 2012; Oruezabala et al.,2013; Zhu, 2013</p>	<p>18. Demand</p>		<p>20. Demand</p>	<p>Health needs Level of demand Behavioural motivation Internal power</p>	<p>Needs, motivations, behaviours, levels of demand, changes in demand, externalities of demand, non-competitiveness, health justice, vulnerable groups, political stability, social harmony, polarisation between rich and poor, health needs, demand, material needs, spiritual needs, internal motivation;</p>
			<p>21. Demand expression</p>	<p>Expression mechanism Demand discovery demand collection Feedback response</p>	<p>Discovery, expression, request, response, response, feedback, communication, solicitation, channel, path, approach, advice, proposal, complaint, improvement, listening, demand list, demand</p>

					collection, demand composition;
			22. Demand-oriented	Demand orientation Demand-centred Government-led Inducing demand	Real needs, false demand, excessive demand, induced demand, patient needs, medical needs, government-led, government-oriented, demand-oriented, customer-oriented, market-oriented, demand-driven, demand-centric, demand-driven, internal drive, orientation;
Kourula, 2010; Qiu, 2016; Gormly, 2014; Hasselbalch et al., 2014; Prier et al., 2016; WHO,2016; Europe, 2014;	19. Strategy	6. Strategy and governance	23. Strategy and innovation	Strategic thinking Strategic choice Value proposition innovative development	Planning, strategy, layout, long-term, overall, comprehensive, system, reform, health system, progress, new means, new technology, Internet, online procurement, organisational innovation,

					institutional innovation, payment innovation, management innovation;
Bovaird et al., 2012; Lonsdale, 2012; Bastani P2016; Uenk et al., 2018;	20. Strategic procurement		24. Strategic procurement	Strategic purchase fellowship Purchasing mode Create value	Centralised procurement, selective purchase, contract service, service package, public health project, undertaking entity, principal agent, contract, contract service, forward-looking, partnership, supplier, bidding, competition, medical insurance fund, medical insurance payment, patient participation Public satisfaction, social harmony, health for all;
Stiglitz, 2011; Christensen et al., 2011; Frederickson, 2013; Cockerham, 2014; Liu et al.,	21. Governance		25. Governance and cooperation	Interactive negotiation	Negotiation, decision-making, political participation, regulation,

2014; Zhang et al., 2015; WHO, 2018;				<p>From bottom to top</p> <p>Fragmentation</p> <p>Global governance</p>	<p>negotiation, cooperation, top-down, bottom-up, democracy, decision-making, department, fragmentation, UN, WHO, international agreement, international public opinion, infectious disease flow, interaction, good governance;</p>
			26. Participation	<p>decision to participate</p> <p>Social participation</p> <p>Interactive communication</p>	<p>Public, social organisations, community medical institutions, patients, enterprises, CPPCC representatives, NPC deputies, CPPCC members, third-party institutions, non-medical institutions, discussions, forums, suggestions, suggestions, feedback,</p>

					questions, consultations, proposals, assessments.
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**Appendix 7 Table of SPP related laws**

Legal System	Enactment of regulations	legal validity
National laws and regulations	Government Procurement Law, Tendering and Bidding Law, Budget Law, Contract Law, Administrative Litigation Law, Administrative Reconsideration Law, and Implementation Regulations of the Government Procurement Law (Draft)	high
Ministries of the State Council	Interim Administrative Measures for Government Procurement, Measures for the Implementation of Central Government Procurement Management, Measures for Government Procurement of Government and Social Capital Cooperation Projects, and Measures for Government Procurement Management of the Ministry of Commerce	medium
Local administrative department	Supplier management system, bidding agency management system, bidding management system, professional and technical personnel management system, procurement unit management system, bid evaluation management system, government procurement fund management system, government procurement supervision and management system	low