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Paralympics Athletes Survey - Service quality at the London 2012 Games

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Abstract

To date there has been little evidence captured about athlete's satisfaction at the Paralympics Games, specifically about their perceptions of the service quality provided. Such research has the potential to evidence base and support future decision makers whilst planning and designing this complex sporting event. This survey captures this knowledge and highlights, in the athletes opinion, how well designed, organised and managed the London 2012 Paralympic Games were. Athletes rated 64 of 73 items with a score in the 'very satisfied' category. However, in any system there are areas for improvement (AFIs), these are highlighted for further investigation.

Keywords: Paralympics, Service quality, Performance Measurement

Introduction

The International Paralympic Committee (IPC) and the World Academy of Sport (WAoS) launched a study in 2012 to capture the 'voice of the athletes' during the London 2012 Paralympic Games. This study helped measuring and understanding what was critical for athletes in competing at the Paralympics. The objectives were to appreciate which criteria were important to optimise the Athletes' experience. It starts to establish a valid evidence base and establish how London 2012 performed against multiple key criteria. The questionnaire was designed by the IPC and the WAoS with direct support and facilitation from the University of Huddersfield (UoH). The research was then undertaken and facilitated at London 2012 between 29/08/12 and 04/09/12. This utilised a team of four IPC Academy Interns led by an IPC Academy Research Fellow – the team facilitated the survey over six days through 1:1 interviewing. Following the departure of the Research team the survey was available for on-line completion. This paper presents the key findings and outcomes from the survey results up to 09/10/12.

Literature

Successful Olympics and the Paralympics

The Olympic and Paralympic Games are recognised as the most prestigious sporting event in the world. The Games were re-introduced in Athens in 1896 following the ideas of Pierre de Coubertin who viewed it as "the theories of physical exercise as the basis of a balanced education and organised sport as an agent of international unity and social equality" (Chalkley & Essex, 1999, p.369). Over the past 116 years significant

infrastructure developments have been observed for the host cities. The Games offer the host cities huge opportunities for regenerating the urban environment, stimulating their economic growth throughout jobs creation, improving transport facilities as well as enhancing its global recognition (Blake, 2005; Chalkley & Essex, 1999).

Chalkley & Essex (1999) explained that a total of 311 athletes from 13 countries participated in the Games held in Athens in 1896 (230 of the athletes were Greek). However, fast forward to 1996 and in Atlanta, 10788 athletes from 196 Countries took part; a relevant indicator of the impact of the games. In London 2012 for the 30th Olympiad nearly 11,000 athletes participated; and 4278 Paralympics athletes took part in the 14th Paralympics games. This made it the largest Paralympics games ever organised (IPC, 2012).

In terms of academic research there is extensive literature that describes the advantages of organising the games. Our research project investigated a rather unrepresented area, the perceived 'quality' of the games from the different groups of stakeholders: public; government; press; and the athletes. In this paper the focus remains exclusively on the athletes and their perception of the quality of the Paralympic games. This service quality study was developed in active collaboration with the IPC, the organisation overseeing and controlling the sporting mega-event, and the WAOs who facilitated the Games Experience programme for external observers (future games makers).

Service Quality

Service quality has been investigated over the past three decades very comprehensively. However, there is less evidence of its application within the sporting environment (Trenberth & Hassan, 2012, Bamford et al., 2012, De Knop, 2004). It is only recently that sport organisations have started to appreciate the importance of service quality and the potential organisational and business benefits they could develop by understanding it further (Tsitskari et al, 2006).

In this paper, it is assumed that Sport events and games can be categorised as services, that their consumption is intangible, heterogeneous, simultaneously produced and consumed and perishable (as per Parasuraman et al., 1985). Measuring service quality has always been a rather controversial topic within academia (Brady and Cronin, 2001; Tsitskari et al, 2006) but it is accepted as being the stakeholders or consumers perceptions of the service excellence. The objective being to match the performance with the stakeholders or consumers' expectations for an optimum delivery. Bernthal and Sawyer (2004) explained that the limited research which has investigated service quality in the sport industry have so far focused almost exclusively on the satisfaction from the fans perspective. It is therefore recognised that a lack of evidence exists which investigates the athletes' perspective regarding their perception of sport event service quality. This is the core rationale for this study.

The diverse models for measuring service quality that have been most tested are often derived from SERVQUAL (Parasuraman et al, 1988) where they developed a five-factor model. Murray and Howat (2002) explored the relationships between service quality, value and satisfaction in the sport environment using the SERVQUAL instruments. Of the 22 original SERVQUAL items they identified 18 attributes, amongst these are: parking safety and security; facility cleanliness; up-to date information available; programmes start and finish on-time; broad range of activities available; how well the centre is organised and run; the physical comfort of the centre; value for money services; equipment quality and maintenance; food and drink services; staff experience and friendliness. Other studies have demonstrated that the measured

factors often focus on different feature combinations, such as: reliability; tangibles; personal attention; and convenience (Carman, 1990) or personnel, core and peripheral (Howat et al., 1999). In our research the IPC were keen to establish a framework that will enable future Games decision makers to have a better understanding of the athletes' perception of quality. To help structure the dissemination of our research a two-fold research question was developed using features defined from the available literature: 'what are the most important factors for the key client group (the athletes) and how did the London 2012 Paralympics perform against these criteria?'

Methodology

The survey instrument was designed by a joint team from the IPC, WAOs and the UoH from May 2012. The research was then undertaken and facilitated at London 2012 between 29/08/12 and 04/09/12. A team of four IPC Academy Interns led by an IPC Academy Research Fellow facilitated the survey over six days through 1:1 interviewing. Following the departure of the Research team the survey was made available for on-line completion (c.f. Duffy, 2005). The survey sought to provide an evidence base against two primary objectives: i) identifying what are the specific Paralympics Games criteria impacting the athlete experience, and ii) establishing a baseline against each of the core criteria by measuring the performance of the London 2012 Paralympics. The survey was a combination of closed, fixed-response questions using a 5-point scale and open dialogue boxes for respondent opinion and suggestions. The developed survey was facilitated through a dedicated web application.

Based on the literature and the IPC aims and objectives 10 criteria were identified: Paralympic village; competition venues; transport; catering; volunteers and staff; ceremonies; pre-game information; medical and healthcare; arrival and departures; and anti-doping. In each category between 4 and 12 items were defined to form the survey items, a total of 73 were created.

Due to the large number of athletes involved (4278) the research team used a rationale sampling system to target 323. This also ensured as wide a representation across the countries represented as possible. 250 responses were collected (during the fieldwork the team recorded 130 questionnaires; 120 were subsequently completed on-line).

The Findings

Profile

36% of the respondents were wheelchair users, 19% visually impaired and 45% ambulant, and this across most of the 166 disciplines. The most represented countries were Brazil 11.24%, China 9.24% and the US 9.24%. The rest of the sample was reasonably distributed amongst the other countries. Regarding the gender of the respondents 62% were male and 38% female. Furthermore, 72% of respondents were between 16 and 34 years old.

Themes weighting

10 Themes were selected and their boundaries defined, expressed by 73 items. In order to assess each themes importance, the survey asked the respondents (the athletes) to select their five most important themes. From this it was possible to extract a normalised weight according to the results for each theme. Table 1 below summarises the results.

Table 1: Themes and their associated weight

Themes	% weight
Paralympics village	17.50
Competition venues	17.06
Transport	14.57
Catering	12.08
Volunteers and staff	8.52
Ceremonies	8.00
Pre-game information	7.63
Medical and healthcare	6.83
Arrivals and departures	5.05
Anti-doping	2.76

The Paralympics village, the Competition venues, Transport and Catering services were the most important themes. The athletes appeared sensitive to the operational environment that impacts their performances.

The research was interested in not only collecting the ‘voice of the athletes’ but also assessing the operational performance of the London 2012 Paralympics Games. This could set a benchmark for future reference and facilitate the comparison of sporting events. Therefore, the survey asked respondents to express their satisfaction with the service received using a scale from 1 to 5 (1=very satisfied, 2=satisfied, 3=neutral, 4=dissatisfied, 5=very dissatisfied). By compiling all the results it was possible to define the performance for each theme as shows Table 2.

Table 2: Themes and their assessment scores

Themes	1-5 Assessment
Volunteers and staff	1.486
Ceremonies	1.488
Medical and healthcare	1.517
Arrivals and departures	1.671
Paralympics village	1.810
Transport	1.812
Competition venues	1.820
Catering	1.846
Anti-doping	1.894
Pre-game information	1.999

All theme assessments have a score between 1.486 and 1.999, which means that overall respondents indicated they were ‘very satisfied’ with all processes, services and facilities provided during the Paralympics 2012. However, it is not the most important areas that ‘scored’ best (comparing Table 1 with Table 2). There are, therefore, still areas for improvement that should be taken into account for in planning, designing and organising following Paralympics events. The four most ‘performing’ activities were Volunteers and staff, Ceremonies, Medical and healthcare and Arrivals and departures. Although none of these were considered by the athletes to be the most important (they rated the Paralympics village, Competition venues, Transport, and Catering).

Findings – Theme by themes analysis

In this section, we analyse in detail each theme individually and their associated items, by theme importance order. We were interested in understanding in greater detail what the athletes considered as important and how did London 2012 perform in each.

Paralympics village

The Paralympics Village was considered as the most important area from the athletes' perspective but only ranked at the fifth position in term of overall performance. The Village was defined by 12 items, as Table 3 illustrates.

Table 3: Paralympics village indicators weighting and scoring

Ref	KPI	Weighting	Scoring
1	internal transport system	9.84	1.86
2	access to internet	13.83	1.55
3	social activities	8.4	1.93
4	resident centre service	6.45	1.88
5	room house keeping	13.23	1.99
6	hygiene	13.15	1.76
7	laundry services	12.21	1.72
8	language services	5.6	2
9	NPC services	3.31	1.87
10	multi-faith centre	0.93	2.04
11	repair centre	3.48	1.81
12	village plaza	8.4	1.76

(Note: 1-5 scale; 1=very satisfied to 5=very dissatisfied)

Access to internet, the room house keeping service, the hygiene and the laundry service were the four most weighted indicators. Their performances were also excellent as the athletes rated them between 1.55 and 1.99, which correspond to 'very satisfied', based on the 1 to 5 discrete scale developed. It might be relevant to note that the least important items were the NPC (National Paralympics Committee) services and the multi-faith centre respectively weighted at 3.31 and 0.93.

Competition venues

The Competition Venues were ranked second in terms of perceived importance, with a normalised weight of 17.06. However, they ranked at the seventh position in terms of performance. Clearly a mismatching ratio can be seen in this category. 9 items were identified and selected as Table 4 shows.

Table 4: Competition venues indicators weighting and scoring

Ref	KPI	Weighting	Scoring
13	warm up area	18.66	1.79
14	waiting call area	11.65	2.02
15	distance to drop off	11	1.86
16	field of play	16.4	1.51
17	access and changing room	10.03	1.86
18	mixed zone	3.67	2.01
19	athlete lounge	8.95	1.98
20	equipment storage	6.58	1.95
21	training venues	12.19	1.78

The most important items were the warm-up area, the field of play, the training venues and the waiting call area, these items performed well with a scoring between 1.51 for the field of play and 2.02 for the waiting call area which was seen as 'very satisfactory' or 'satisfactory'. The athletes considered equipment storage and mixed zone as secondary.

Transport

Transport services in and around the Paralympics Games were seen by the athletes as the third most important area, with the total weight of 14.57. However, they only came in sixth position in terms of assessment and performance.

Table 5: Transport indicators weighting and scoring

Ref	KPI	Weighting	Scoring
22	travel time	18.41	1.83
23	quality of buses	15.67	1.78
24	adequacy of transport info	7.59	1.88
25	accessibility	15.8	1.75
26	adherence to public schedule	9.33	1.79
27	frequency of transport	16.92	1.76
28	transport to observe other sports	7.59	2
29	transport of equipment	8.08	1.85

As shown in the table above, 8 items constituted the transport service. 4 items can be distinguished from the others: Travel time, frequency of transport, accessibility and quality of buses with weights between 18.41 and 15.67. Their performances were also considered as ‘very satisfying’ by the athletes, meeting their expectations. The four other items were not seen as important by the athletes.

Catering

Catering services have been weighted as fairly important by the athletes, with an associated weight of 12.08. However, in term of performances the catering services are ranked in eighth position. We questioned the athletes on 6 items. 5 of these were seen as important. The athletes’ diet is critical and impacts their performances, it must be thought and planned very carefully; this could explain the reason why most of the items of this theme were importantly rated.

Table 6: Catering indicators weighting and scoring

Ref	KPI	Weighting	Scoring
30	variety of cuisine	22.14	1.64
31	food quality	24.58	1.72
32	menu rotation	17.64	1.97
33	access to food at different location	17.07	1.89
34	athlete lounge food provision	15.57	2.11
35	boxed meal	5.44	1.96

Volunteers and staff

Volunteers and staff were ranked fifth in the weighting table with 8.52, this was the best performing service provided according the athletes. The performance scores were extremely high. The athletes recognised and were greatly satisfied with the workforce’s motivation to assist (1.31), their level of training (1.45), the appropriate number (1.46), their language skills (1.57) and their non-intrusive ability (1.64). The methodology for staff training, recruitment and development could certainly be replicated elsewhere, as sport events greatly rely on the volunteers and staff to provide a high service quality.

Table 7: Volunteers and staff indicators weighting and scoring

Ref	KPI	Weighting	Scoring
36	well trained and informed	20	1.45

37	adequate number	20	1.46
38	motivated and keen to assist	20	1.31
39	good language skills	20	1.57
40	non-intrusive workforce	20	1.64

Ceremonies

From the data it was established that the Ceremonies were an important part of the Games experience for the athletes. The 4 items ranked in order of importance is not surprising: the opening ceremony (32.72), the team welcome ceremony (29.04), the closing ceremony (21.27) might not have been attended by all the athletes and the victory ceremonies (15.95) will have been influenced by individual results. The 4 items achieved a very high score between 1.34 and 1.61 as Table 8 demonstrates.

Table 8: Ceremonies indicators weighting and scoring

Ref	KPI	Weighting	Scoring
41	team welcome ceremony	29.04	1.52
42	opening ceremony	32.72	1.34
43	closing ceremony	21.27	1.61
44	victory ceremony	15.95	1.57

Pre-Game information

Pre-game information was not considered too critical. It has an aggregated weighted of 7.63. It ranked last in term of performances with a total ratio of 1.999, which is still a high score but considered within the bottom end of the ‘very satisfying’ discrete category.

Table 9: Pre-game information indicators weighting and scoring

Ref	KPI	Weighting	Scoring
45	departures and arrivals	18.1	1.69
46	accreditation	19.54	1.75
47	ticketing	14.94	1.81
48	qualification process	17.82	2.7
49	classification opportunity	10.92	2.08
50	games related information	11.21	2.04
51	anti-doping	6.03	1.9

The pre-game information encompassed 7 items and the most important were: accreditation, departures and arrivals, qualification process and ticketing. The athletes were possibly expecting more information about: the qualification process (2.7); the classification opportunity (2.08); and games related information (2.04), the least performing overall indicators. Interestingly anti-doping information was considered as the least important items.

Medical and healthcare

Medical and healthcare services were ranked eighth in term of importance (6.83); it did not appear as critical as one might think to the athletes. It was ranked third in terms of performance (1.517). Athletes were very satisfied with the provided medical and healthcare services. The respondents were especially satisfied with the physiotherapy (1.43), the on venue first aid (1.44), the polyclinic general service and the optometry both with a score of (1.46).

Table 10: Medical and healthcare indicators weighting and scoring

Ref	KPI	Weighting	Scoring
52	Polyclinic general service	10	1.46
53	physiotherapy	10	1.43
54	dental care	10	1.52
55	optometry	10	1.46
56	on venue first aid	10	1.44
57	emergency medical aid	10	1.48
58	sport medicine	10	1.51
59	hydrotherapy	10	1.53
60	primary care	10	1.65
61	pharmacy	10	1.69

Arrivals and Departures

Arrivals and departures ranked ninth in term of importance with an aggregated weight of 5.05. However, it performed relatively well achieving the fourth position and a total score of 1.671. There were 7 items assessed in this category. The athletes were ‘very satisfied’ with the provided services, especially regarding the accreditation process at the airport (1.52), the available wheelchair at the gate (1.61), the assistance in the baggage collection (1.62) and the processing through village (1.64), as table 11 below illustrates.

Table 11: Arrivals and departures indicators weighting and scoring

Ref	KPI	Weighting	Scoring
62	meet your wheelchair at gate	14	1.61
63	access toilet after plane	14	1.81
64	assistance baggage collection	14	1.62
65	accreditation process at airport	14	1.52
66	travel to village	14	1.81
67	process through village	14	1.64
68	remote checking	14	1.69

Anti-doping

Anti-doping services were the least important theme from the athletes’ perspectives, with a total aggregated weight of 2.76. In term of performance, although satisfied with these services the athletes have it at the ninth position with a total score of 1.894. There are 5 items associated with the anti-doping theme, all scoring between 1.83 and 1.96.

Table 12: Anti-doping indicators weighting and scoring

Ref	KPI	Weighting	Scoring
69	education book and info	20	1.89
70	anti-doping staff chaperone	20	1.85
71	anti-doping staff officer	20	1.94
72	efficient anti-doping process	20	1.96
73	anti-doping station facilities	20	1.83

Discussion

Table 13 below represents for each theme the aggregated performance and weighting, based on the survey order.

Table 13: The overall results in the questionnaire order

Themes	Assessment	weight
Paralympics village	1.810	17.50
Competition venues	1.820	17.06
Transport	1.812	14.57
Catering	1.846	12.08
Volunteers and staff	1.486	8.52
Pre-game information	1.999	7.63
Medical and healthcare	1.517	6.83
Arrivals and departures	1.671	5.05
Anti-doping	1.894	2.76
Ceremonies	1.488	8.00

We can conclude from this study that from the athletes perspective the Paralympics game processes, services and facilities were excellent, and to some extent exceeded the respondents' satisfaction, with a total of 1.822. Both those involved in the survey design and the athletes really started to appreciate the importance of service quality and impact it can make (Tsitskari et al, 2006).

Note that the scores used in the survey design are based on a discrete scale from 1 to 5, 1 being very satisfied, and 5 being very dissatisfied. This report has demonstrated that although athletes were delighted by the games organisation, the themes considered as the most important: Paralympics village, Competition venues, Transport and Catering were not the best rated. These were respectively at the fifth, seventh, sixth and eighth position. The least important rated items by the athletes such as Anti-Doping, Arrivals and Transport, Medical and Health Care were wholly organized and facilities for them by their NPC's. All the 'important' rated items were things that the athletes had more direct contact with. Of course, measuring service quality is a rather controversial topic within academia (Brady and Cronin, 2001; Tsitskari et al, 2006) but we should recognise the usefulness of this evidence based study that incorporates the athletes views. Bernthal and Sawyer (2004) identified that the limited research into service quality in sports focused almost exclusively on fans perspective. Rather a missed opportunity in terms of designing sporting operational infrastructures that are fit for purpose (Dale et al, 2005)

When the findings are taken forward they will lead to improvements in the planning, design and organisation of future Paralympic events, supporting and informing the decision makers for the Brazil 2016 Paralympic Games and potentially used as a Benchmarking framework for comparison of future Paralympic Winter Games (c.f. Tsitskari et al, 2006).

Conclusion

It would be useful to reflect further on why the most important themes were not necessarily the ones that performed best according to the athletes' perspectives. However, we should reiterate that all themes were meeting, even exceeding, the athletes' expectations, considering their scoring, <2 means 'very satisfied'. This study started to establish a valid evidence base and establish how London 2012 performed against multiple key operational criteria.

This research highlights, in the athletes opinion, how well designed, organised and managed the London 2012 Paralympic Games were. The athletes rated 64 of the 73 items with a score in the 'very satisfied' category (<2). Only 9 items have a score

belonging to the 'satisfied' discrete category (<3). This is evidence that, from the athletes' perspective, their expectations have been met and mostly surpassed. Volunteers and staff services were rated as the best performing by the athletes. This is extremely interesting to note as the academic literature related to sport highlights the problematic nature of managing these critical criteria (the multiple roles and direct impact that volunteers and temporary staff have on the perception of service quality).

However, in any system there are areas for improvement (AFIs), which should be highlighted and investigated further. This research has highlighted the following AFIs: i) the criteria rated as most important by the athletes: Paralympic village; Competition venues; Transport; and Catering were not the ones that scored best in terms of actual performance. Volunteers and staff, Ceremonies, Medical and healthcare, and Arrivals and departures were rated as the best performing. This should be investigated further to understand why the most important criteria were not the best performing, from the athletes perspective.

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