Aligning Waiting Management Decisions with Service Demand Context to Improve Perceived Service Quality

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Abstract

Waiting in services is inevitable due to their nature. Service organizations see keeping customers waiting as a potential competitive problem. A position in this paper is that the focus should rather be on the perceived service quality. Three factors are identified that could influence the perceived service quality namely, service demand context, the queue management approach and the perceived waiting time. Relationships are proposed that constitute potential control points for achieving a high perceived service quality.

Keywords: Waiting Time, Queue Management, Perceived Service Quality, Service Operations, Service Capacity, Services cape

1.0 Introduction

The growth of the service sector in the recent past makes the need for adequate management of service operations more and more important in a modern economy. The increase in the number of service firms has resulted in a fiercely competitive sector in which firms must increase their efficiency, productivity and quality to remain competitive. Adequate management of available capacity becomes a key success factor (Johnson, 2005). The presence of the customer during production of a service makes this a complicated undertaking. The customer is present either in person or represented by own property.

The customer has a co-production role and brings in inputs that range from tangible belongings, body, to information. The resulting dual role of the customer with customer presence during production makes capacity an integral part of the service product and brings complexity to the management of service operations (Pullman & Moore, 1999). A capacity mismatch is then felt in terms of quality perception. A measure of mismatch has been used as a broad indicator of quality by Chase, Jacobs, Aquilano and Agarwal (2009).

Chase et al. (2009) describe three zones of service determined by the capacity mismatch as measured in terms of capacity utilization. The "zone of service" describes the situation which utilizes service capacity up to 70%. Operating in the "zone of service" keeps servers busy but allows a 30% capacity buffer for risks. The "critical zone" describes a situation which utilizes service capacity between 70% and 100%. In this "critical zone", there is no or inadequate buffer capacity to respond to the variability resulting from customer involvement.

Operations situation above the 100% capacity utilization is described as the "zone of non-service". It is argued that at this zone, many customers may not receive services even remotely close to what they expected. But with the capacity utilized fully, costs are kept low, the benefit from which can be passed to the customer. The flip-side to this is the waiting and its potential impact on not only actual service quality delivered but also perceived service quality, the two aspects of service quality.

1.1 Waiting in Services

Zeithaml (1988) argues that customers consider waiting time as a form of price. Price is described as what is given up or sacrificed in order to obtain a product. The arguments are that saving time can be equated with low prices. Waiting, therefore, influences whether customers return or not through its impact on value perception (Ittig, 2002). Seen as an order loser, waiting becomes a route to loss of business and therefore, managing waiting becomes a focus area for managers in the services sector.

Conventional approaches to managing waiting focus on waiting time and queue length management. Conceptually, the focus is on waiting experience rather than experience during wait. While the object in both concepts is the same, the customer, the dimension of focus in the "waiting experience" is the objective temporal dimension while the dimension of focus in the "experience during wait" is the subjective attitudinal dimension. In this approach, managing waiting does not necessarily focus on the waiting time and the related queue length but on the maintenance of favorable outcomes in the identified elements of attitude. Waiting time, in this view, is a temporal time element which is but one attribute of an "attitude object". Cognitive- Affective-Conative model describes an attitude towards an "attitude object" in terms of Cognitive, Affective and Conative components, relating to beliefs, feelings and behavior, respectively (Jain, 2014). The key is in the view of a service encounter as an event, an "attitude object".

A 3D model by Jain (2014) proposes what has been referred to as a "PPN Triode" in which a favorable outcome in behavioral element (conative component) is achievable with a negative outcome in the cognitive element when the affective element has a positive outcome. The focus of managers' actions in service operations is favorable outcomes in the behavioral element (conative component) of attitude towards the service encounter, as the attitude object. A focus on experience during wait will achieve the outcome in the "PPN Triode" model by enhancing the feelings that form the affective element in a context in which the service encounter becomes an event and feelings are developed around that event as an attitude object. An influencing factor in this will be the service demand context.

1.2 Service Demand Context and Waiting Management Focus

As a psychological concept, attitude entails feelings, emotions and behavior (Jain, 2014). The feelings and emotions have influencing role in the gap between the service as perceived and as delivered. The end outcomes of these attitudinal dynamics in the service demand context are two concepts used in service quality debate, namely, service quality delivered and perceived service quality (Parasuraman, Zeithaml and Berry, 1985). Conceptual issues in the demand context, therefore, include the objective aspects related to actual service quality delivered such as waiting time and other aspects of service encounter and the subjective attitudinal aspects. Armistead (1990) has used the terms "firm" and "soft" to categorize the service dimensions at the opposite ends of this spectrum.

Waiting and waiting time fall in the category of dimensions classified by Armistead (1990) in the "firm" category and are subject to actions of capacity management, productivity management and the more mechanistic process factors. In the "soft" category are the dimensions that require actions that are socio-behavioral in nature and include what Armistead (1990) refers to as style, steering and safety aspects. A position by Ross (1993) that it is not the behaviors and actions of the service providers that determines how good a service provided is but how these actions are perceived and interpreted by the customer suggests the two categories of firm dimensions are not completely independent but are interlinked. Accepting this position, then it can be argued that responses to factors of waiting and waiting time, classified by Armistead (1990) as being in the "firm" dimensions, ought to include consideration of the attitudinal aspects such as waiting time tolerance, waiting tolerance stimuli and psychology of the customer.

As pointed out by Armistead (1990) the service levels achieved in these dimensions are related to the price and customer value. Yet customer perception of how good the service will have been and the value attached to it must still be dependent of customer perception, an attitudinal concept.

These arguments point to availability of two routes through which the dynamics in service encounter can be managed so as to achieve strategic objectives. Options available entail focus on the demand context and the subjective socio-behavioral perceived quality or a focus on the internal service system and internally focused "firm" dimensions of service quality. A focus on service context essentially starts from service market segmentation, service productization and perceived quality.

Various studies suggest the bases for service market segmentation can be personality (Bennet, 1998; Hornik, 1984; Maister, 1985; Mobach, 2013), and culture (Morden, 1999). Each of these bases of segmentation, according to the literature, relate to individual time perception and presentation of wait situations. The differences in time perception and presentation show in overestimation and underestimation of waiting time, which in turn, influence the key factors in perceived service quality, namely, word of mouth and evaluation of service quality delivered.

Hornik (1984) and Mobach (2013) suggest over or under-estimation can be as by as much as 40 per cent of the actual waiting time depending on the personality of the individual customer. It is suggested by Maister (1985) that some personalities, described as the watchers, may, in fact, even enjoy the waiting provided the wait is not what Maister describes in the study as a "lonely wait". Consistent with this view are the personality type classification by Bennett (1998) in Type A personalities are characterized by exaggerated sense of time urgency, easily irritated, excessively competitive, hypercritical, aggressive and always in a rush. It is suggested that, more irritable with having to wait, customers of Type A personality are more likely to overestimate waiting time than the type B customers, who are described as more relaxed, unassertive and conciliatory towards the outside world.

Such differences in tolerance to waiting, or intolerance, may also be predicted by the national culture making up the service demand context as pointed out by Morden (1999), who suggests time sensitivity as a dimension in a national culture classification. Identifying two broad national culture types, namely, monochronic and polychromic, Morden (1999) describes characteristics of monochronic culture type in terms of time sensitivity, a view of time as a scarce resource, and a perception that time is money. In contrast, polychronic culture type characteristic are listed as lack of concerns about time, multi-tasking is seen as natural and stimulating. In this respect, it can be argued, unconstrained by the inner need for linear schedule, order, productivity, economic progress, and clarity of purpose, as is the case with monochronic culture, a polychronic culture type would probably see a service encounter as an event in which other stimulating activities are expected and present.

This tolerance and intolerance to waiting are attitudinal. Expectancy–value model, one of the earliest attitude models, considers the two dimensions of cognitive component of attitude, "perceived instrumentality" and "value importance" are manipulatable (Jain 2014). A "PPN Triode" proposed by Jain suggests a favorable outcome in the behavioral element, a key focus for service encounter activities, is feasible even with a negative outcome in the cognitive element of attitude. Buell and Norton (2011) have demonstrated the manipulability of the cognitive element of attitude, suggesting that, through what they term as "labor illusion", people can prefer service encounters with longer waits to those with shorter waits even where the end service product is the same. According to Buell and Norton (2011), the "labor illusion" effect can be brought about by operational transparency, suggesting that such transparency induces a feeling of reciprocity that mediates the link between reality and the service value perception.

Further evidence for manipulability of cognitive element of attitude have been provided by Maister (1985) and Antonides, Verhoef and Van Aalst (2002). The suggestion by Maister (1985) that occupied wait may feel shorter provides support for manipulating the cognitive structure as it relates to waiting by providing time fillers with the effect that the perceived waiting time can be significantly reduced. Physical environment is suggested by Mansor, Hasanordin, Rashid and Wan Rashid (2012) as one overriding factor in achieving desired outcome in behavioral component of attitude in some service encounters. Mansor et al. (2012) stress the importance of what they have termed "interaction quality" in achieving the desired outcome in the component. The outcome in this behavioral component of attitude can, conceptually, be argued to be a mediating factor between the service encounter and perceived service quality. The reasoning would be that management must focus on this "interaction quality" so as to achieve perceived service quality objectives.

2.0 Perceived Service Quality as an outcome of Attitudinal Outcomes

Service quality is defined as the customers impression of superiority or inferiority of services and the organization relative to other organizations and their services (Johnston, 1995). The concept of perceived service quality is explained by the Gap Model developed by Parasuraman et al. (1985).

The Gap model outlines four gaps on the service provider's side that can affect the consumers' service quality evaluation. These gaps exist between consumer expectation and management perception of those expectations, between management perception and the service specifications, between the specifications and actual service delivered, and between actual service delivered and organization's externally communicated service information.

On the consumers side, Ross (1993)'s suggestion that service quality concept that has business value is that which results from the way the customer perceives and interprets the behaviors and actions of the service providers rather than the behaviors and actions themselves is consistent with Gap Model (Parasuraman et al., 1985) description of the fifth gap. This perception and interpretation by the customer entails a key concept in achieving desired behavioral outcome from the consumer, the perceived service quality. The gap between the perceived service and expected service is a function of the external communication and attitudinal outcomes.

This gap, according to extant literature, is the essence of customer satisfaction (Wirtz, Mattila and Tan, 2007). The researchers have used the terms congruency, arousal levels and service environment stimulation to relate the dynamics in the demand context described by the Gap Model. The arguments are that desirable behavioral outcomes are achieved by bringing about arousal congruency between the consumers initial arousal-level expectations and perceived stimulation from the service environment as created by the physical aspects and behaviors and actions of the service providers. These socio-behavioral concepts also suggest manipulability of the important elements in service encounter. As argued by Buell and Norton (2011), the cognitive element of attitude, is manipulatable through "labor illusion" to bring about positive behavioral outcome from a service encounter. These arguments buttress the position that the focus of service encounters management ought to be perceived service quality, which, being attitudinal in nature, is subject to customer perception and interpretation and hence manipulable through the cognitive element of the attitude.

Attitudinal factors in service quality are also suggested by Gronroos (1984) model that identifies three types of service quality, "Technical quality", "Functional quality" and "Image". In the classification model, technical quality relates to what is received, as a benefit, after the service has been delivered and is judged from the outcome of the service. Functional quality relates to the consumer interaction as an event, concerns the experience, and is judged from the process. A combination of technical, functional and external factors influences a third component of quality – the Image. Dependent on the maintenance of functional and technical quality performance over a period, Image impacts customer reaction and perception through its influence on the tolerance levels of the customers to short falls in the other two components.

2.1 Waiting Management Focus as a Variate in Perceived Service Quality Model

Conventional thinking consider waiting time as the key focus for service management decisions. In this view waiting relates to an important "firm" category dimension (Armistead, 1990). Management is faced with trade-offs with cost as the issues are related to capacity and productivity. Hard elements of management such queuing theories, simulation, and capacity variation are the core practices and techniques (Afrane and Appah, 2014; Desai and Hunsucker, 2008; Chase et al., 2009).

The position by Pullman & Moore (1999) that the dual role of the customer makes capacity variation an important factor in managing service quality also brings to fore another issue or, as one can also call it, opportunity or route to achieving desired outcome. Ross (1993) has argued that the behaviors and actions of the service providers have less significant weight than how the customer perceives and interprets them. Being attitudinal, perception and interpretation of the customer is manipulable (Buell and Norton, 2011). A proposition from this is that, it is not the waiting that will determine whether the customer returns or not as suggested by Ittig (2002) but the feelings aroused by the experience during the wait, more of an outcome of "interaction quality" (Mansor et al., 2012).

The resulting service quality model would then have waiting management focus as the core variate with factor interaction from service demand context variable. This is not to challenge the arguments by Zeithaml (1988) that customers consider waiting time as price, but seeks a moderation of the same by considering that the service context has variates that include psychological and other attitudinal aspects. A feasible proposition is that a focus on perceived service quality will necessarily redirect waiting management decisions to the soft dimensions (Armistead, 1990), and require service demand context-specific considerations in view of Ross (1993) assertions.

The basis for this proposition, notwithstanding the assertion by Zeithaml (1988) that waiting time is a form of price, experience during the service encounter event, including during waiting, constitute attitude objects that stimulate and can be evaluated in terms of congruence with the customer cognitive structure (Jain, 2014; Wirtz et al., 2007). Figure 1 below is a graphical representation of the resulting model in which waiting management focus can take two states. In one state, the focus is on "waiting time" with evaluation of performance emphasizing the dimensions in the "firm" category as described by Armistead (1990).

In the alternate state, the focus is on "experience during wait" with the emphasis on the "soft" dimensions. A factor interaction between the waiting management focus variable and the service demand context is hypothesized. The variable of service demand context is made of psychological factors (Maister (1985), national culture issues (Morden, 1999), dominant personality in the market segment (Bennett, 1998), and attitudinal model focus of strategy (Jain, 2014).

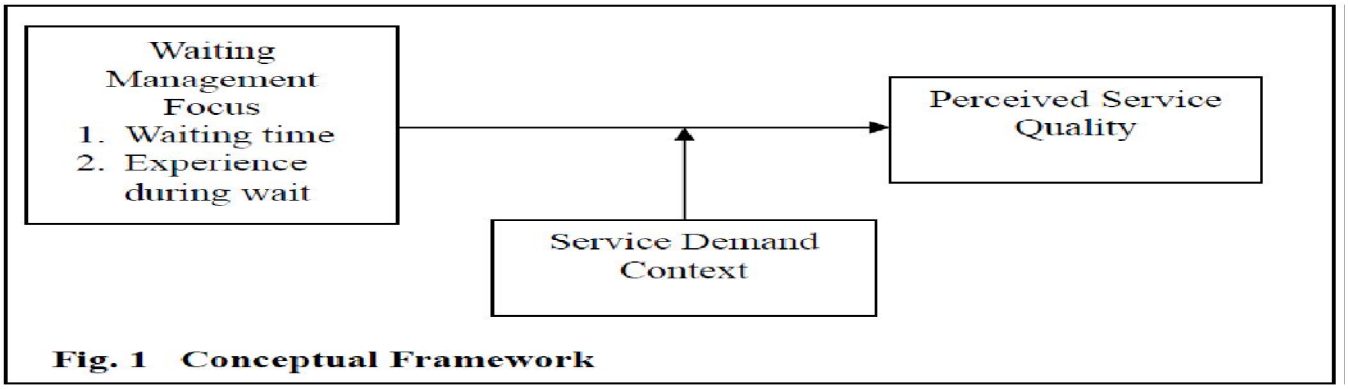

Fig. 1 Conceptual Framework

The conceptual model in figure 1 is based on a position that the quality of service perceived by a customer is a product of the interaction of the management of the waiting experience and subjective factors related to the customer. Management of the waiting experience include elements of queue management such as number of servers, type of queue, queue discipline, the service scape, the service process and the interactions during the service encounter. The subjective factors include psychological influences, personality, cultural disposition, familiarity, expectations and socio-economic status.

The focus on perceived service quality rather than the service quality delivered may require emphasis to be shifted to the softer and subjective elements of the service system design. This entails a shift to giving consumers value for their waiting time so that they do not realize it is waiting time after all. It is a change from "waiting for service" to service event, and a session that takes some time and which has stimulating aspects that a customer values. It is a position in which the emphasis is on managing the continued interaction so that waiting time is converted to a useful session and a perception of lower waiting is achieved.

3.0 Conclusion and Areas for Empirical Investigations

Emerging issues of technology, globalization, deregulation and democratization have influenced service possibilities. Service productization, customer segmentation and application of yield management practices can be explored for various service scenarios. Globalization has resulted in more people crossing borders and cosmopolitan lifestyles mean bases for achieving competitive advantage in services operations has expanded significantly. The design of service concept needs to take account of these emerging issues so as to achieve greater value perception in this dynamic environment. Focus on traditional static objectives like reduced waiting time is not sufficient, and service quality as perceived by the customer becomes the key focus point. Major conclusions drawn from the literature are that opportunities exist to moderate the often hard-to-balance trade-offs that organizations are forced to take to achieve service quality objectives without becoming uncompetitive in the market. Socio-behavioral factors that influence service outcomes provide opportunities for greater success in terms of customer perceptions. Management of queues and customer service must be seen as a dynamic process and modeling waiting and queue management has to be expanded to include environmental, physical, behavioral and socio-economic aspects.

An empirical study to test this model would help expand the understanding and in the development of management practices consistent with the dynamic context businesses must now operate in. Understanding issues such as national culture and waiting tolerance, gender and waiting tolerance and attitudinal related factors would provide managers with the knowledge for more effective decision-making.

Other issues of interest for empirical research include environmental stimuli, their influence on customer service provider staff and interactions in the service encounter.

References

Afrane, S. &Appah, A. (2014). Queuing theory and the management of Waiting-time in Hospitals: The case of Anglo Gold Ashanti Hospital in Ghana. International Journal ofAcademic Research in Business and Social Sciences, 4(2), Feb 2014.

Antonides, G., Verhoef, P.C. & Van Aalst, M. (2002). "Consumer perception and evaluation of waiting time: a field experiment. Journal of Consumer Psychology, 12(3), 193-202.

Armistead, C.G. (1990). Competitive Service Strategy and the Service Operations Task.Cranfield School of Management, Bradford. Retrieved from
https://dspace.lib.cranfield.ac.uk/bitstream/1826/351/2/SWP4090.pdf

Bennett, R. (1998). Queues, customer characteristics and policies for managing waiting lines in supermarkets.International Journal of Retail & Distribution Management, 26(2), 78-87

Buell, R. W. & Norton, M. I. (2011). The Labor Illusion: How Operational Transparency Increases Perceived Value, Management Science, Articles in Advance, 1–16, July 2011

Chase, R.B., Jacobs, F.R., Aquilano, N.J. &Agarwal, N.K., (2009). "Operations Management for competitive advantage", 11th Edition, Tata McGraw Hill, New Delhi

Desai, S. S. &Hunsucker, J. L. (2008). A sensitivity analysis tool for improving the capacity of amusement rides. Journal of Simulation, 2, 117–126

Gronroos, C. (1984). A service quality model and its marketing implications.European Journal of Marketing, 17, 36-44

Hornik, J. (1984). Subjective vs objective time measures: a note on the perception of time in consumer behavior. Journal of Consumer Research, 11, 615-18.

Ittig, P.T. (2002). The real cost of making customers wait. International Journal of Service Industry Management, 13(3), 231-241.

Jae-Ko, Y., &Pastore, L. (2004).Current Issues and conceptualizations of Service Quality in the Recreation Sport industry.Sport Marketing Quarterly, 13(2).

Jain, V. (2014).3D Model of Attitude.International Journal of Advanced Research in Management and Social Sciences, 3(3).

Johnston, R. (1995). The determinants of service quality: satisfiers and dissatisfiers. International Journal of Service Industry Management, 6(5), 53-71.

Johnston, R. (2005). Service operations management; return to roots. International Journal of Operations and Production Management, 25(12), 1278 -1297

Maister, D.H. (1985). The psychology of waiting lines., in Czepiel, J.A., Solomon, M.R. and Surprenant, C.F. (Eds), The Service Encounter, Lexington Books/DC Heath, London.

Mansor, A. A., Hasanordin, R., Abd Rashid, M. H., & Wan Rashid, W. E. (2012).Hierarchical Service Quality Model towards Student Satisfaction.International Journal of Innovation,Management and Technology, 3(6), Dec 2012

Morden, T. (1999). Models of National Culture - A Management Review, Cross Cultural Management, An International Journal, 6(1), 19 – 44

Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1985). A Conceptual Model of Service Quality and Its Implications for Future Research**,** Journal of Retailing, 49(4), 41-50.

Pullman, M., & Moore, W. (1999). Optimal Service Design: Integrating Marketing and Operations Elements for Capacity Decisions. International Journal of Service IndustryManagement, 10(2), 239 – 260

Ross, G. F. (1993). Service Quality and Management: The perceptions of hospitality employees. The Journal of Tourism Studies, 4(2), Dec 1993

Wirtz, J., Mattila, A. & Tan, R. (2007).The role of arousal congruency in influencing consumers' satisfaction evaluations and in store behaviors.International Journal of Service IndustryManagement, 18(1), 6 – 24

Zeithaml, V. A (1988). Consumer perception of price, quality and value: a means-end model and synthesis of evidence. Journal of Marketing, 52, July, 2 - 22