The impact of culture on self-service technology adoption in the hotel industry

Abstract

Increasingly technology based solutions are being used to deliver customer service within the international hotel sector. Frequently, these are being driven by cost and operational efficiency concerns, rather than customer service concerns. The argument is presented in this paper that the undifferentiated use of these solutions across international hotel chains without consideration of the diversity of national cultures that may utilize these services may impact negatively on customer service and organizational performance. A number of propositions are suggested both for further academic research and as factors for consideration by hotel managers in this sector.

***Keywords*:** e-business, customer service, culture, international management, premium hotels

INTRODUCTION

Technology is altering the traditional concept of business and leaving few areas of it untouched. One area of technology that is having a large effect on traditional methods of business is self-service technology within the service industry. Self-service technologies are technological interfaces, which allow the customer to produce the service independent of direct involvement from the service employee (Meuter et al., 2000). This adoption of technology based service solutions is often in place of interpersonal service solutions as the use of self-service technology occurs during the service encounter. The service encounter is where the customer directly interacts with the service organization. Traditionally this service encounter is with a staff member but more recently it has become person to technology through the introduction of self-service technology. Despite this, there is an absence of research into both technology in the service encounter and the frameworks used by service marketers (Bitner et al., 2000). The majority of research on service encounters still focuses on the traditional interpersonal nature of the service encounter, as usually this was the gauge to measure the standard of the encounter (Meuter, 1999). It is becoming apparent, however, that the introduction of technology in the service encounter is not only altering the traditional service encounter but also in some instances eliminating the need for the interpersonal interaction with service staff (Bitner et al., 2000).

In many instances the introduction of a self-service system has been driven by cost rather than service considerations. This trend is particularly prevalent in the premium hotel sector of the hospitality industry (Brown & Dev, 2000). In this sector there is a growth of business to consumer technology solutions offered to captive consumers after the main purchase choice, the hotel's accommodation service, has been made. Automated check outs in hotels have been identified as one of the more frequently used form of self-service technology (Meuter et al.,

2002). The introduction of self-service technologies in premium hotels is dramatically altering a service industry where service levels are a key selling attribute, competition is intense and the need for meeting customer expectations is great. Given these requirements hotels are finding it difficult to introduce a variety of self-service technology while still maintaining service quality (Anderson, Fornell & Rust, 1997). In the past, the implementation of undifferentiated service strategies within, and sometimes across, international hotel chains has been an effective marketing tool. This has partly been because a relatively culturally homogeneous group of western travellers were the predominant consumer in this sector. This in turn led to consistency of customer expectations. However, with the growth of global business and expansion of the middle class in Asia (Tan, 1997) a greater diversity of consumers are now using the services of international hotels.

This paper initially considers the general barriers to the acceptance of self-service technology in the service encounter, and specific issues related to the international hotel context. We then examine cultural issues and their relationship to both customer service and technology. Finally, we draw these themes together and suggest a number of propositions focusing on the domains of consumer behaviour and the related impacts on service management within hotels. These propositions apply the broad general concerns that are applicable to successful self-service implementation to a cross cultural setting in hotels, looking specifically at the areas of power distance, uncertainty avoidance and time orientation.

LITERATURE REVIEW

Our literature review is divided into three sections: *Technology and the Service Encounter*, *Culture and Service Delivery* and *Culture and Technology*. We draw these three themes together later in the paper in the section entitled *Research Propositions*

Technology and the Service Encounter

It was stressed by Parasuraman and Grewel (1996) that the rise in self-service technologies demonstrates a fundamental shift in the nature of services. Understanding the impact of self-service technology is very important as its introduction is challenging traditional services marketing because it demonstrates that the customer-staff interface is no longer essential (Dabholkar, 2000; Meuter et al., 2000).

Despite the growth of self-service technology, there is very little theoretical and empirical research investigating the customer's perceptions of, and responses to, these innovations (Walker & Craig-Lees, 1998; Bitner et al., 2000; Meuter et al., 2000). As a result, many researchers have called for further investigation into this area (for example, Bitner et al., 2000; Dabholkar, 1994, 1996; Globerson & Maggard, 1991; Meuter et al., 2000). Furthermore, the introduction of self-service technologies appears across a range of industries, such as banks (automatic teller machines), airlines (self-service boarding pass dispensers), petrol stations (pay at the pump facilities) and hotels (automated check-in and check-out facilities). Research is therefore needed to better understand customers' preferences with respect to self-service technology, especially as continual increases in technological developments are only going to make the introduction of this service delivery option more prolific.

There have been calls for increased research into the relationship between the personal characteristics that customers bring to the service encounter and their interactions with technology (Parasuraman & Grewal, 2000). Research into this relationship is particularly

important for the premium hotel sector. The premium hotel industry has traditionally been considered high contact service settings with high amounts of personalized service (Bowen, 1990). High contact means that the customer usually interacts a great deal with hotel staff and these interactions play a large role in defining the hotel stay for the guests in terms of service quality and customer satisfaction. However, there is now increasing introduction in the hotel industry of self-service technology (Brown and Dev, 2000). Hotel management have the difficult task of trying to maintain customer service levels whilst introducing technology to the service encounter. Human resource management is regularly a concern for hotel management. However, hotel management now have to contend with technology management as well, which poses additional issues (Enz, 2001).

Hotel guests can often choose between personal service and using self-service technologies, and in many instances guests experience a mix of both service delivery modes. However, increasingly guests are not given a service delivery choice as self-service technology is being introduced to reduce interpersonal service. This is evidenced in automated room service ordering and housekeeping arrangements through the television.

There are many different types of self-service technologies that can be introduced to help deliver services to guests in hotels. For example guests may use an automatic check out facility in their hotel room rather than go to the reception desk and interact with the front desk staff, they may order room service via the television set or they may book a tennis court via the kiosk in the hotel reception area. By introducing self-service technologies, hotel managers are hoping to increase the speed and effectiveness of service delivery. The benefits that hotel management can achieve through the introduction of self-service technologies include cost savings, increased efficiency, and service standardization (Meuter & Bitner, 1998). Whereas, the

hotel guest may benefit through time and cost savings, greater control over the service delivery, reduced waiting time, enjoyment from technology interaction, increased location availability, and higher perceived level of customization (Dabholkar, 1996; Meuter & Bitner, 1998). As such, both guests and hotel management can often perceive the introduction of self-service technology very favourably. We discuss the changing cultural profile of premium hotel customers, and the impact this changing profile may have on service delivery expectations and perceptions in a later section of this paper.

As noted earlier, the interpersonal element is one of the traditional defining features of services marketing, especially in high contact service encounters such as those conventionally found in premium hotels (Gwinner et al., 1998). Connolly (2000, p.4) states that the hospitality industry "is people serving people on a personalized level with customized services." While the introduction of self-service technology may result in a number of positive outcomes there is also the potential for negative outcomes to occur, due to changes in the interpersonal element of the service encounter. Evidence exists that technology mediated communication changes the level of trust between the parties and decreases the richness of the message (Hiltz, Johnson & Turoff, 1986). Hackett (1990) cautions that when organizations introduce self-service technology customers may perceive that there is a lack of human intervention in the event of service failure, a lack of personal relationships between staff and customers, and an overemphasis on cost savings for the organization. In addition, Meuter et al. (2002) suggest that technology anxiety can also color perceptions regarding the use of self-service technology.

Meuter and Bitner (1998) stress that there are a number of major concerns with self-service technologies. These pertain to; service recovery, reduced interpersonal contact with service employees, the elimination of the social experience in the service encounter, an overemphasis on

organizational benefits, and a lack of sufficient costs savings. One additional concern relates to the use of technology as marketed as a means to compete with others. Meuter and Bitner (1998) term this an overemphasis on technologically based competitive advantages. All of the issues above highlight the need for careful planning and implementation of self-service technologies to reduce and ultimately eliminate these negative concerns (Dabholkar, 1996).

Given that there are particular issues about the introduction of self-service technology in such a traditionally high touch industry, research is needed to understand both the positive and negative aspects of self-service technology. It seems reasonable to assume that to ensure service quality hotel managers need to focus in the first instance on the negative factors and understand how these can be overcome to ensure that hotel guests continue to be satisfied, repeat customers. For the purposes of this paper we have chosen to focus on four issues only: service failure and service recovery, a reduction in interpersonal contact, the elimination of the social experience, and, because of its importance to relation to culture, technology anxiety. The four issues are discussed with regard to the hotel industry generally. .

When a hotel service is delivered via self-service technology when service failure occurs, as the very nature of self-service technology implies, as there is no hotel staff member directly involved, immediate recovery is made more difficult. This service failure can include a technological breakdown, inability to complete the transaction, or false service expectations. Service recovery extends also to facilities enabling the customer to complain to the hotel staff when something does go wrong (Meuter & Bitner, 1998). Previous research has found that virtually all negative self-service technology encounters resulted from a service failure (Meuter et al., 2002). In these instances there were generally no opportunities to recover the failure. This demonstrates the importance of service design systems allowing customers to

use technology to recover the service themselves wherever possible (Bitner et al., 2000). In the hotel industry, guests do have the advantage of proximity to staff members for service recovery. However service recovery still is not immediate as the guest has to search for, and wait for, a staff member to rectify the situation. One such example is an inability to book a tennis court via the kiosk in hotel reception. The hotel guest has to seek out a free staff member to rectify the situation and book the court.

As mentioned previously, the research focus with regard to service encounters and service delivery has largely focused on the interpersonal element. This previous research has highlighted the importance of interpersonal interactions in satisfying customers and making them loyal to organizations (McCallum & Harrison, 1985; Suprenant & Solomon, 1987; Czepiel, 1990; Bitner, 1990; Bitner et al., 2000). However, with the introduction of self-service technologies these interpersonal interactions are reduced. As there has been such an emphasis placed on interpersonal interactions in determining customer satisfaction and customer loyalty, by decreasing this interaction this may reduce satisfaction levels and have a negative effect on customer satisfaction and customer loyalty. Anderson, Fornell and Rust (1997) indicate that services like hotels have a distinct disadvantage when it comes to introducing self-service technology in the service encounter as hotel staff play such a dominant role in determining service quality. Therefore hotel managers need to pay particular attention when they substitute technology for labour in the service encounter to ensure that the same level of customized service is available to guests.

While hotels may have the ability to implement technology in the delivery of their services, management may prefer *not* to implement it. This is due to the potential loss of the interaction with the staff member available in full-service options. Many guests enjoy

interactions with staff during the service encounter. Early self-service technology research in a banking environment found that the main reason for consumers not using Automatic Teller Machines (ATMs) was a preference for dealing with humans in banking (Marr & Prendergast, 1991). Although consumers have now largely accepted ATMs and this context may not longer stand it does illustrate some of the challenges faced by management when trying to limit interpersonal interactions where traditionally there has been high contact with staff members. In a study set in the hotel industry Mattila (1999a) revealed that often it was how the service was delivered by hotel staff that was more important to guests than the outcome of the service itself thus indicating the importance of interpersonal interactions with hotel staff in determining service quality.

As would be expected, those consumers who chose to use self-service technologies tend to be more comfortable with technology to begin with (Dabholkar, 1994). Therefore, it is likely that people have different perceptions and tolerances about the introduction of self-service technologies based on their level of technology acceptance and the importance of the interpersonal interaction to them during service delivery (Forman & Sriram, 1991; Dabholkar, 1996). Meuter et al., (2002) found that technology anxiety was a better predictor of self-service usage than demographic characteristics such as age and gender across a variety of service settings and self-service technologies including automated check outs in hotels. The results also suggest that not only does technology anxiety influence actual usage but it also indicates the overall experience of using the self-service, in particular, satisfaction levels, repeat usage and word-of-mouth. A low level of technology anxiety results in a favourable outcome for all aspects of self-service technologies.

Dabholkar (1996) notes that some studies have found that consumers enjoy interacting and playing with technology (Langeard et al., 1981; Holbrook et al., 1984) and it is suggested that this enjoyment may reduce consumers' need for interaction with service staff. Later studies have also found similar results regarding consumers' enjoyment of technology (Igbaria, Iivari & Maragahh, 1995; Igbaria, Parasuraman & Baroudi, 1996). It is likely therefore that those hotel guests who may not place such importance on the social aspect of an interpersonal interaction may be more receptive to a person-to-technology interaction as the core service offering has greater significance in determining satisfaction than the manner the service is delivered. Mattila (1999a) found that business travellers have a low tolerance for inefficient hotel employees. These guests often prefer self-service as they did not have to wait for hotel staff to complete the service for them. Therefore, the outcome of the service is more important to these guests than the manner in which the service is delivered.

There are approaches that can be used to limit customer uncertainty of self-service technologies. These include: 1, designing the self-service technology with a customer focus; 2, using technology in the process which is relevant to the task and not overly complicated; 3, providing training or educational programs when self-service technologies are first introduced or encountered; 4, giving customers a choice as to whether they use the self-service option or the interpersonal option therefore enabling customers to select the service delivery mode that best suits them; and 5, providing customers with an incentive or some other motivation to select the self-service option (Meuter et al., 2002). The challenge for hotel management is to find an appropriate level of technology suitable for *their* target market, which enables them to enhance customer satisfaction levels and perceptions of service quality for this particular group.

Culture and Service Delivery

While premium hotels have always catered for international visitors, the increased globalization of trade, the rise of newly industrialized countries, and the emergence of an expanded Asian middle class (Tan 1997) have lead to an increasing divergence in the cultural backgrounds of both business and leisure guests. Although this expansion may have stalled in the wake of the Asia crisis (Ang, Leong & Kotler, 2000), the importance of this segment to the hospitality industry remains (Cheung & Law 1998). In this section we argue that not only is the service encounter influenced by technological change, it also needs to be responsive to the way hotel guests of different cultures perceive technology in customer service delivery.

In recent times the model of national culture (power distance, uncertainty avoidance, individualism-collectivism and masculinity-femininity) suggested by Hofstede (1980) has been broadly accepted as a descriptor of national culture (Chow Shields & Chan, 1991; Shackelton & Ali, 1990; Triandis, 1982). In attempting to apply culture to the management of organizations five dimensions have been suggested that influence the approach taken by managers (Hofstede, 1995; Hofstede & Bond, 1988). These five dimensions are Hofstede's four dimensions and one additional dimension. The fifth dimension is long and short-term time focus, also called Confucian values. We recognise that the model proposed by Hofstede is only one of many models of culture, and is not without its critics. However, it is a commonly used, readily operationalized model, which in our opinion provides a workable cultural framework in which to investigate service delivery issues in premium hotels.

There is much debate as to the way in which culture contributes to organizational effectiveness. Divergent theorists argue that organizations are more effective and competitive

when the practices in the organization are consistent with culture (Burns & Stalker, 1961; Earley, 1994; Powell, 1992). By contrast, convergent theorists see that organizations should transcend differences in national culture (Porter, 1986) and operate under a common corporate culture (Yip, 1992). Between these groups are researchers who argue that corporate culture can influence, but not eliminate, national cultural values (Adler, 1997; Ricks, Toyne & Martinez, 1990), or others who point to crossvergence, a combination of the organizational culture and national cultural values (Ralston, Holt, Terpstra & Kai-Cheng, 1995).

Regardless of whether management is converging, diverging or crossverging, culture can be seen as having an important influence on the effectiveness of organizations. The solutions to the culture problem suggested by the theories are, respectively, to reflect, eliminate or adapt. However, in the service encounter, less opportunity exists to eliminate culture, or even to adapt the culture of the customer. While some e-service encounters may be culture free, we suggest that, in general hotel managers are almost forced to follow a strategy of reflecting the culture of customers.

There has been a growing amount of literature on the relationship between culture and various aspects of marketing, for example segmentation (Taylor, 2000; Douglas & Wind, 1973; 1987) sales practices (Murphy, 1999), advertising (Zhang & Neelankavil, 1997), purchasing decisions (Chiou, 2000), customer satisfaction and loyalty (Crotts & Erdmann, 2000), sales management leadership style (Larsen, Rosenbloom, Anderson & Mehta, 1999), and marketing ethics (Singhapakdi, Rallapalli, Kumar, Rao & Vittell, 1995). While there is evidence of globalization of markets as suggested by Levitt, (1983), the need to adapt products and services in international markets to meet differing cultural needs is well documented (Ozsomer, Bodur & Cavusgil, 1991; Quelch & Hoff, 1986; Douglas & Wind, 1987; Bartlett &

Ghoshal, 1989). Even global brands are increasingly localized (Linder, 1997; Watson, 1997; Roth, 2001).

The effect of culture has been highlighted in a number of studies focusing on service delivery and the service encounter. Within the area of service delivery, Winsted (1997) suggests that there are differences in the constructs United States and Japanese national groups use to assess service encounters, while Mattila (1999b) extends this to specifically address the relationship between cultural frameworks and service evaluation in luxury hotels. Danthu and Yoo (1998) identified cross-cultural differences in expectations of service quality. In an empirical, cross cultural study in the hotel industry in Hong Kong, Armstrong, Mok, Go and Chan (1997) identified difficulties in measuring service quality caused by differences in both expectations and perceptions. Furrer, Liu and Sudharshan (2000), in a study that that addressed perceptions of the service encounter in retail banking, found support for a relationship between service encounter evaluation and Hofstede's (1991) cultural dimensions. What is important to note here, however, is that all of this previous research focuses on interpersonal service encounters, rather than those that utilize self-service technology. Our literature review revealed no research specifically addressing the effect of culture on self-service technology within the service encounter.

Culture and Technology

The previous two sections highlighted the importance of service and technology, and service and culture to the premium hotel market. In this section we focus on the relationship between culture and technology.

Straub, Loch and Hill (2001) note the lack of extensive empirical research into the relationship between technology and cultural variables. However, some empirical and descriptive research which does exist, points to differences in the way that technology is accepted and used in different cultural contexts. Straub (1994), Straub, Kiel and Brenner (1997) and Gefen and Straub (1997) identified differences in email and fax use between American and Japanese samples. There is also evidence of that culture influences the acceptance and use of electronic conference systems (Raman & Wei, 1992). Straub, Loch and Hill (2001) found that culture specific beliefs influence information system outcomes in a multi-country sample of people of middle-eastern culture. In addition, Bredin (1996) suggests that the use of communication technologies varies greatly across cultures, while Roth (2001) notes intercultural differences in the meaning of the messages sent and received via computer.

In a broader context, cultural barriers to technology transfer between western and other cultures have been well documented (Scheraga, Tellis & Tucker 2000; Jensen & Scheraga, 1998). Wicklein (1998) specifically notes the need to examine social contexts in selecting the appropriate types of technology to be used in educational settings, arguing that in some cultures individual technological competence is not rated highly as an educational goal. In addition, Slowikowski and Jarratt (1997) identify cultural factors which influence consumer behavior related to the adoption of high technology products, while Phillips, Calontone and Ming-Tung (1994) suggest that culture influence also positively influences the acceptance of technology in uncertain demand conditions in industrial marketing contexts.

In the literature on organizational, rather than national, culture there is strong evidence that shared beliefs, expectations, values, attitudes and behaviors influence the use of communication and information technology (Sitkin, Sutcliffe & Barrios-Choplin, 1992;

Webster & Trevino, 1995; Fulk & Boyd, 1991; Zack & McKenny,1995). Cabrera, Cabrera and Barajas (2001) draw parallels between the influence of national and organizational culture on technology driven change. We argue that it is not a large conceptual jump, given the extensive literature on organizational culture and technology, and the emerging literature on national culture and technology, to suggest that national culture will influence the use of self-service technology in premium hotels.

RESEARCH PROPOSITIONS

In the previous sections of this paper we have discussed *customer service and technology*, *customer service and culture* and *culture and technology* separately. In this section we suggest a number of propositions that bring these aspects together in a hotel setting. As we are discussing both consumer behaviour and related impacts on service management in hotels, we present propositions for both of these domains. This section outlines the cultural theories and applies them to the self-service technology dimensions highlighted earlier. These dimensions include service recovery and service failure, the reduction in interpersonal contact, the elimination of the social experience, and technology anxiety.

Our first propositions are based on Hofstede's power distance, uncertainty avoidance, and time dimensions. Mattila (1999b) suggests that in high power distance cultures, service employees, being of lower status, are expected to provide high levels of service to customers. Research by Furrer et al., (2000) supports this contention, and also suggests that those who are at the higher levels of society in large power distance cultures have high expectations in this regard. It can be assumed that guests of premium hotels who come from cultures that have large power distance, are likely to be from the higher levels of society, and therefore are likely to expect high quality interpersonal service. In addition, consistent with Danthu and

Yoo (1998) guests from the higher level of high power distance cultures will be less tolerant of service failure. Due to the need to keep distance and save face (Hofstede, 1991) these guests will also be less likely to either utilize self-service technology, or to seek assistance from low level hotel staff in the case of service failure resulting from the guest's unfamiliarity with the service delivery systems. Similarly, guests from high uncertainty avoidance cultures will be less likely to utilize self-service technology than those from low uncertainty avoidance cultures. Finally, reliability, responsiveness and empathy are important to long-term oriented cultures (Furrer et al., 2000). While all three of these items may be modified by the move from interpersonal service with hotel staff to self-service technology, it is empathy, which we suggest will have the most effect.

This leads us to the following propositions:

Consumer Behaviour Propositions

1. Hotel guests from high power distance cultures are less likely to accept self-service technology than those from low power distance cultures.
2. Hotel guests who come from high power distance where saving face is an important component of the culture will be less willing to utilize unfamiliar self-service technology for service delivery.
3. Hotel guests who come from high power distance cultures where saving face is an important component of the culture will be less likely to report service failure with self-service technology.
4. Hotel guests from high uncertainty avoidance cultures will be less likely to utilize self-service technology than those from low uncertainty avoidance cultures.

5. Hotel guests from high power distance cultures will be less likely to return to organizations where they perceive self-service technology delivery solutions inadequately meet their service delivery needs, than those from low power distance cultures.

Flowing from the consumer behaviour propositions outlined above, we have used inductive reasoning to suggest a number of service challenges for hotel managers, which may also exist in the resulting hotel context:

Hotel Management Propositions

1. Hotel management will delay effective implementation of self-service technology delivery solutions because of a lack of acceptance due to the cultural reasons (high power distance, high uncertainty avoidance, long term time orientation).
2. Hotel management will have difficulty in maintaining the quality of the service experience because of the reluctance of hotel guests to utilize self-service technology delivery system due to cultural reasons (high power distance, high uncertainty avoidance, long term time orientation).
3. Hotel management will have difficulty in maintaining quality of the service experience, because there will be less opportunity for service recovery to occur due to the lack of reporting of self-service technology delivery failures due to cultural reasons (high power distance, high uncertainty avoidance, long term time orientation).

4. Hotel management commitment to self-service technology delivery solutions will decrease as a response to this lack of reporting of service failures.

CONCLUSION

This paper has introduced an area of research that has important practical and theoretical implications to premium international hotel management. Technology is dramatically altering the way business is conducted and the speed and effect of this business change is only going to continue to occur. One area where this change is being felt is the service encounter. Traditionally these encounters have been interpersonal but they are now frequently becoming person-to-technology through the introduction of self-service technologies.

One service industry where these service developments are having a large effect is the hotel industry given its traditionally high element of personalization. Not only has the introduction of self-service technology reduced the interpersonal interaction that the guest has traditionally had with hotel staff, but it also raises the issue of the acceptance of these self-service technologies by the various customer groups of these hotels. The broad concerns of service failure, the reduction of interpersonal contact and social benefits, and technology anxiety are enhanced even further when the effect of culture is considered. This paper suggests some initial propositions focusing on the domains of consumer behaviour and the related impacts on service management. Further research is needed to test these propositions empirically in a cross-cultural setting in the hotel industry. The propositions proposed in this paper may also be applicable in other settings beyond hotels. Other applicable settings where culture is a possible concern include service industries, which have both these mixes (self-service technologies and culture) such as tourist destinations and airlines. For example, airports have

introduced E-Ticketing and self-service check in facilities. The discussions in this paper may also extend to these types of other hospitality industries.

There is currently little research addressing the issue of culture and self-service technology. Although culture is likely to have a significant effect on the use and acceptance of self-service technology, it is by no means the only factor. It is possible that a number of personality traits such as social motivation and technology attitudes will also affect the usage and acceptance of self-service technologies. Demographic factors such as age, education and sex have also been investigated with regard to technology acceptance (Igbaria, Pavri & Huff, 1989). Therefore given that as the introduction of self-service technology in the service encounter is only reasonably recent there are still a lot of unknown factors, of which culture is only one. Keeping this in mind, however, with the development of global business and the growth of technology in the service encounter there is an increasing need to focus on culture and self-service technology and to understand the relationship between them.

REFERENCES

Adler, N. J. (1997). International dimensions of organizational behavior. Cincinnatti, Ohio: South-Western College Publishing.

Anderson, E. W., Fornell, C. & Rust, R. T. (1997). Customer satisfaction, productivity, and profitability: Differences between goods and services. Marketing Science, 16 (2), 129-145.

Ang, S. H., Leong, S.M., & Kotler, P. The Asian apocalypse: Crisis marketing for consumers and businesses. Long Range Planning, 33, (1) 97-119.

Armstrong, R.W., Mok, C., Go, F & Chan A. (1997). The importance of cross-cultural expectations in measurement of service quality perceptions in the hotel industry. International Journal of Hospitality Management, 16, (2), 181-190.

Bartlett, C. A., & Ghoshal, S. (1989) Managing across borders: The Transnational solution. Boston: Harvard Business School Press.

Bitner, M .J. (1990). Evaluating service encounter: The effects of physical surroundings and employee responses. Journal of Marketing, 54, April, 69-82.

Bitner, M. J., Brown, S. W. & Meuter, M. L. (2000). Technology infusion in service encounters. Journal of the Academy of Marketing Science, 28, (1), 138-149.

Bowen, J. (1990). Development of a taxonomy of services to gain strategic marketing insights. Journal of the Academy of Marketing Science, 18 (1), 43-49.

Bredin, D. (1996). Transforming images; Communication technologies and cultural identify in Nishnawabe-Aski. In D.Howes (ed.) Cross cultural consumption , 161-177. London, New York Routledge.

Brown, J. R. & Dev, C. F. (2000). Improving productivity in a service business. Evidence from the hotel industry, Journal of Service Research, 2, (4), 339-354.

Burns, T & Stalker, G. M. (1961). The management of innovation. London: Tavistock.

Cabrera, A., Cabrera, E.F., & Barajas, S. (2001). The key role of organisational culture in a multi-system view of technology driven change. International Journal of Information Management, 21, 245-261.

Cheung, C., & Law, R. (1998). Hospitality service quality and the role of performance appraisal. Managing Service Quality, 8 (6) 402-406.

Chow, S. W., Shields, M. D. & Chan, Y. K. (1991). The effects of management controls and national culture on manufacturing performance. Accounting , Organisztions and Society, 16, 209-26.

Chiou, J. S. (2000). Investigating the consumer social adjustment and value expressive perceived ends in product purchasing decisions: A cross-national study. Journal of International Consumer Marketing, 12(2), 87-109.

Connolly, D. J. (2000). Shifting paradigms: Using information technology to enhance service dyads in luxury hotels. Journal of Hospitality and Leisure Marketing, 7 (2), 3-38.

Crotts, J. C., & Erdmann, R. (2000). Does national culture influence consumers' evaluation of travel services? A test of Hofstede's model of cross-cultural differences. Managing Service Quality. 10 (6), 410-419.

Czepiel, J. A. (1990). Service encounters and service relationships: Implications for research. Journal of Business Research, 20, 13-21.

Dabholkar, P. (1994). Technology-based service delivery: A classification scheme for developing marketing strategies. Advances in Services Marketing and Management, 3, 241-271.

Dabholkar, P. (1996). Consumer evaluations of new technology-based self-service options: An investigation of alternative models of service quality. International Journal of Research in Marketing, 13, 29-51.

Dabholkar, P. (2000). Technology in service delivery: Implications for self-service and service support. In T. A. Swartz & D. Iacobucci, (Eds), Handbook of Services Marketing and Management, (pp. 103-110). Thousand Oaks, CA: Sage.

Douglas, S. P., & Wind, Y. (1973). Environmental factors and marketing practices. European Journal of Marketing, 7 (3), 155-165.

Douglas, S. P., & Wind, Y. (1987). The Myth of Gloabalization. Columbia Journal of World Business, Winter, 19-27.

Danthu, N. & Yoo, B. (1998). Cultural influence on service quality research. Journal of Service Research, 1(2), 178-86.

Earley, P. C. (1994). Self or group? Cultural effects of training on self-efficacy and performance. Administrative Science Quarterly, 39, 89-117.

Enz, C. A. (2001). What keeps you up at night? Key issues of concern for lodging managers. Cornell Hotel and Restaurant Administration Quarterly, April, 38-45.

Forman, A. M. & Sriram, V. (1991). The depersonalization of retailing: Its impact on the "lonely" consumer. Journal of Retailing, 67 (2), 226-243.

Fulk, J., & Boyd, B. (1991). Emerging theories of communications in organisatizations. Journal of Management, 17, 407-466.

Furrer, O., Lui, B. S. C. & Sudharshan, D. (2000). The relationship between culture and service quality perceptions: Basis for cross-cultural market segmentation and resource allocation. Journal of Service Research, 2 (4), 355-371.

Gefen, D., & Straub, D.W. (1997) Gender differences in the perception and use of E-mail; An extension of the technology acceptance model. MIS Quarterly, 21 (4) 389-400.

Globerson, S. & Maggard, M. J. (1991). A conceptual model of self-service. International Journal of Operations and Production Management, 11 (4), 33-43.

Gwinner, K. P., Gremler, D. D. & Bitner, M. J. (1998). Relational benefits in services industries: The customer's perspective. Journal of the Academy of Marketing Science, 26 (2), 101-114.

Hackett, G. P. (1990). Investment in technology – The service sector sinkhole. Sloan Management Review, Winter, 97-103.

Hiltz, S.R., Johnson, K., & Turoff, M. (1986). The virtual classroom: Learning without limits via computer networks. Norwood.NJ: Ablex.

Hofstede, G. (1980). Cultures consequences: International differences in work related values. Newbury Park, CA: Sage.

Hofstede, G. (1991). Cultures and organisations. London: McGraw Hill.

Hofstede, G. (1995). The business of international business is culture. Cross-cultural management. Butterworth Heinemann Ltd. (pp. 150-165).

Hofstede, G. & Bond, M. H. (1988). The Confucius connection: from cultural roots to economic growth. Organization Dynamics, 16, 4-21.

Holbrook, M. B., Chestnut, R. W., Oliva, T. A. & Greenleaf, E. A. (1984). Play as a consumption experience: The roles of emotions, performance and personality in the enjoyment of games. Journal of Consumer Research, 11 (September), 728-739.

Igbaria, M. & Pavri, F. (1989). Microcomputer applications: An empirical look at usage. Information and Management, April, 16 (4), 187-196.

Igbaria, M., Iivari, J. & Maragahh, H. (1995). Why do individuals use computer technology? A Finnish case study. Information and Management, 29, 227-238.

Igbaria, M., Parasuraman, S. & Baroudi, J. J. (1996). A motivational model of microcomputer usage. Journal of Management Information Systems, 13 (1), 127-143.

Jensen, O. W., & Scheraga, C. A. (1998) Transferring technology: costs and benefits. Technology in Society, 20, 99-112.

Langeard, E., Bateson, J. E. G., Lovelock, C. H. & Eiglier, P. (1981). Marketing of services: New insights from consumers and managers. Report No. 81-104, Cambridge, MA: Marketing Science Institute.

Larsen, T.,Rosenbloom, B., Anderson, R. & Mehta, R. (1999). Global sales manager leadership styles; the impact of national culture. Journal of Global Marketing, 12 (2), 31-48.

Linder, R. (1997). Global logo, local meaning. Focaal, 30/31, 193-200.

Levitt, T. (1983) The globalization of markets. Harvard Business Review, May-June, 92-102.

Marr, N. E. & Prendergast, G. P. (1991). Strategies for retailing technologies at maturity: A retail banking case study. Journal of International Consumer Marketing, 3 (3), 99-125.

Mattila, A. S. (1999a). Consumers' value judgments. Cornell Hotel and Restaurant Administration Quarterly, 40 (1), 40-46.

Mattila, A. S. (1999b). The role of culture and purchase motivation in service encounter evaluations. Journal of Services Marketing, 13 (4/5), 376-389.

McCallum, R. J. & Harrison, W. (1985). Interdependence in the service encounter. In J. A. Czepiel, M. R. Solomon & C. F. Suprenant (Eds.), The Service Encounter: Managing Employee/Customer Interaction in Services Business (pp. 35-48). Lexington, MA: Lexington Books.

Meuter, M. L. (1999). Consumer Adoption of Innovative Self-Service Technologies: A Multi-Method Investigation. Unpublished PhD thesis, Arizona State University, August.

Meuter, M. L. & Bitner, M. J. (1998). Self-service technologies: Extending service frameworks and identifying issues for research. Paper presented at the AMA Winter Educator's Conference. D. Grewal & C. Pechmann (Eds.) Vol 9, (pp. 12-19). Chicago, IL: American Marketing Association.

Meuter, M. L., Ostrom, A. L., Roundtree, R. I. & Bitner, M. J. (2000). Self-service technologies: Understanding customer satisfaction with technology based service encounters. Journal of Marketing, 64 (3), 50-64.

Meuter, M. L., Ostrom, A. L., Bitner, M. J. & Roundtree, R. I. (2002). The influence of technology anxiety on consumer use and experiences with self-service technologies. Journal of Business Research, forthcoming.

Murphy, W. H. (1999). Hofstede's national culture as a guide for sales practices across countries: The case of a MNC's sales practices in Australia and New Zealand. Australian Journal of Management, 24, (1), 37-58.

Ozsomer, A., Bodur, M., & Cavusgil, S.T. (1991). Marketing Standardisation by multinationals in an emerging market. European Journal of Marketing, 25 (12), 50-63.

A. Parasuraman, A. & Grewal, D. (2000). The impact of technology on the quality-value-loyalty chain: A research agenda. Journal of the Academy of Marketing Science, 28 (1), 168-174.

Parasuraman, A. & Grewal, D. (1996). Understanding and leveraging the role of customer service in external, interactive and internal marketing. Paper presented at Frontiers in Services Conference, Nashville, TN, USA.

Phillips, L. A., Calantone, R., & Ming-Tung, L. (1994). International technology adoption: Behavior structure, demand certainty and culture. The Journal of Business and Industrial Marketing, 9 (2), 16-28.

Porter, M. (1986). Changing patterns of international competition. California Management Review, 28 (2), 9-40.

Powell, T. C. (1992) Organizational alignment as competitive advantage. Strategic Management Journal, 13, 119-34.

Quelch, J., & Hoff, E. (1986). Customizing global marketing. Harvard Business Review, May-June, 56-68.

Ralston, D. A., Holt, D. H., Terpstra, R.H. & Kai-Cheng, Y. (1995). The impact of culture and ideology on managerial work values: A study of the United States, Russia, Japan, and China. *Academy of Management Journal, Best Paper Proceedings*, 187-191.

Raman, K. S., & Wei, K. K. (1992). The GDSS Research Project . In R.P Bostrom, R. T. Watson & S.T Kinney (Eds) Computer Augmented Teamwork: A Guided Tour, 210-220. New York. Van Nostrand Reinhold.

Ricks, D. A., Toyne, B., & Martinez, Z. (1990). Recent developments in international management research. Journal of Management, 16 (2), 219-253.

Roth, K. (2001). Material culture and intercultural communication. International Journal of Intercultural Relations, 25, 563-580.

Shackleton, V. J. & Ali, H. A. (1990). Work related values of managers: A test of the Hofstede model. Journal of Cross-Cultural Psychology, 21, 109-18.

Scheraga, C. A., Tellis, W. M., & Tucker, M.T. (2000). Lead users and technology transfer. Technology in Society, 22 (3), 415-425.

Singhapakdi, A, Rallapalli, K.C., Kumar, C., Rao, C.P., & Vitell, S.J.(1995). Personal and professional values underlying ethical decisions: A comparison of American and Thai marketers. International Marketing Review, 12 (4), 65-77

Sitkin, S. B., Sutcliffe, K. M. & Barrios-Choplin, J.R. (1992). A dual capacity model of communication media choice in organizations. Human Communication Research, 18, 563-598.

Slowikowski, S., & Jarrat, D. G. (1997). The impact of culture on the adoption of high technology products. Marketing Intelligence and Planning, 15 (2), 97-105.

Straub, D.W. (1994). The effect of culture on IT diffusion; email and FAX in Japan and the U.S. Information Systems Research, 5, March, 23-47.

Straub, D. W., Loch, K. D., & Hill, C. E. (2001). Transfer of information technology to the Arab world: A test of cultural influence modelling. Journal of Global Information Management, Oct-Dec, 6-28.

Straub, D.W., Kiel, M & Brenner, W. (1997) Testing technology acceptance model across cultures: A three country study. Information and Management, 31, 1-11.

Surprenant, C., & Solomon, M. (1987). Predictability and personalization in the service encounter, Journal of Marketing, 51 (April), 86-96.

Tan, K. (1997). East Asia as an independent engine of growth: Prospects and implications for managers. Management Decision, 35 (8), 574-586.

Taylor, C. R. (2000). Emerging issues in marketing, Psychology and Marketing, 17 (6), 441-447.

Triandis, H. C. (1982). Review of culture's consequences. Human Organization, 41, 86-90.

Walker, R & Craig-Lees, M. (1998). Technology-enabled service delivery: At risk of compromising the customer-service provider connection? Paper presented at the Australia New Zealand Marketing Academy Conference, (pp. 2760-2779), Dunedin, New Zealand.

Watson, J. L. (Ed.) (1997). Golden Arches East. McDonald's in East Asia. Stanford, DA: Stanford UP.

Webster, J., & Trevino, L.K. (1995). Rational and social theories and complementary explanation of communication media choices: two policy capturing studies. Academy of Management Journal, 30 (6), 1544-1572.

Wicklein, R. C. (1998) Designing for appropriate technology in developing countries. Technology in Society, 20 (3), 371-375.

Winsted, K. F. (1997). The service experience in two cultures: A behavioral perspective. Journal of Retailing, 72 (3), 337-60.

Yip, G. S. (1992). Total Global Strategy: Managing for Worldwide Competitive Advantage. Englewood Cliffs, NJ: Prentice Hall.

Zack, M. H., & McKenny, J. L. (1995). Social context and interaction in ongoing computer-supported management groups. Organization Science, 6 (4), 394-422.

Zhang, Y. & Neelankavil, J. P. (1997). The influence of culture on advertising effectiveness in China and the USA: A cross-cultural study. European Journal of Marketing, 31 (2), 134-149.