Determinants of Customer Satisfaction: A Model of Technology Integration in Thailand’s Insurance Industry

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Abstract
Adoption of technology can aid salespeople by giving them quicker access to better information, particularly when interacting with customers. Although academic research has begun to examine sales force automation (SFA), the understanding from the customer viewpoint is still vague. This paper proposes a conceptual framework to examine the influence of SFA technology integration on both salespeople and external customer satisfaction. Technology integration is probably quite important in the relationship-based cultures of Asia, where customers are strongly familiar with interpersonal service. The specific context of the discussion here is Thailand’s life insurance industry.

Keywords: Technology Integration, Customer Satisfaction, Thailand, Insurance

Introduction
Research in the sales literature has increasingly recognized that using IT as a distribution channel and medium of interaction is becoming a critical issue among practitioners (Gilbert and Powell, 1999; Glynn, 1997). Companies which use IT well can gain advantages, while organizations which do not learn and adapt to changing technology can face painful competition. However, integrating technology can require substantial re-thinking of the exact nature of customer relationships (Zineldin, 2000).

Some observers question whether technology can fully replace interpersonal relationships in financial services, even in the West (e.g., Howcroft and Durkin, 2000). In Asian countries, the strength of human relationships is much greater than in the West, and customers place even more value on strong relationships in business. For example, key account managers of banks operating in Hong Kong view a whole set of social interactions as quite important in facilitating information exchange for building and maintaining customer relationships (So and Speece, 2000). Thus, technology may need to integrate into relationships, rather than replace them, as Srijumpa et al. (2002) hint.
For high-level financial services, it is frequently difficult to separate technology from the relationship between firms and their customers. Thus, the impact of technology on customer satisfaction in the service interaction is a critical area of research. The context of this discussion is the insurance industry, but the issues seem highly relevant for any high level financial service, and many other services, where the customer interaction is critical. The insurance industry in Thailand has shown very strong growth, and even fared well during the economic downturn. However, IT usage in the industry is behind most of the developed world, as in most developing countries, and thus, SFA implementation is relatively new.

Exactly how the salesperson uses such technology could have a big impact on how customers perceive it. Thus, examining internal and external customer perceptions will require attention to technology integration – the extent to which the technology is integrated into interpersonal relationships, rather than substituting for them. Hence, organizations will likely have to understand their salespeople’s and customers’ perceptions and adapt technology implementation to those perceptions.

Therefore, this discussion contributes some awareness to both academics and practitioners by proposing a conceptual framework for exploring the impact of technology integration in SFA implementations on internal customer (salespeople) and external customer satisfaction. Such understanding is especially critical in an Asian developing country context such as Thailand, where customers embrace less technology in their daily lives and interpersonal relationships are more important than in most developed Western countries.

Technology Integration

Technology has become one of the key forces driving the competitive process. Although the future trend is likely to be towards more technology in the service encounter, research is just beginning to pay more attention to careful evaluation of these technology-
based service encounters (Joseph et al., 1999). The importance of understanding technology implementation is indicated by frequent research findings that business cannot compete on technology alone. For example, Powell and Dent-Micalef (1997) revealed that IT alone has not produced sustainable performance advantages, but firms have gained advantages by using IT to leverage intangible, complementary human and business resources, such as flexible cultures, strategic planning – IT integration, and supplier relationships. Similarly, Sohal et al. (2001) show that IT as a stand-alone resource does not create advantage. Technology alone is not sufficient to ensure competitive advantage, partly because of its fast evolution.

Even though the trend toward technology-based services is increasing in some developing countries, the lack of detailed knowledge about how customers feel about emerging technology services could set companies up for failure. While some developing Asian countries are making the transition to a higher technology environment, service firms that have rushed to take humans out of the customer interaction might be causing their customers to be dissatisfied with the self service technology (Srijumpa et al., 2002).

Some observers of internet marketing argue that integrating the internet into marketing competencies can play an important role in enhancing the productivity and effectiveness of the sales force (Kalokota and Whinston, 1997). Such integration is related to another issue of technology-based service encounters that must acknowledged. In the context of the sales force, using the technology depends partly on the perceptions of the technology users, i.e., salespeople, who must integrate technology into their interactions with their customers and assess its impact on their customers’ satisfaction.

Recent research on financial services in Thailand has found that despite the preference of some customers to interact with humans rather than technology-based services, they may have negative attitudes towards human interaction if they lack confidence in the service providers. But while some small proportion of customers prefer technology-based services to
interpersonal ones, they always have the option to revert to the interpersonal encounter when they wish (Srijumpa et al., 2002).

The situation is similar among corporate banking customers – even when corporate customers use internet banking services they continue to conduct the majority of their transactions interpersonally (Rotchanakittumnuai, 2004; Rotchanakittumnuai and Speece, 2003). In general, many customers may simultaneously have both technology and human orientation, which affects how they evaluate service encounters (Srijumpa, 2002). Therefore, firms can gain competitive advantage by integrating both interpersonal and technology services to attract such people.

Despite beginning recognition that how technology is used in marketing and the sales force is critical, almost no research has been devoted to examining the issue of technology integration. The potential benefits of integrating the internet (including intranets and extranets) into marketing have been described anecdotally (e.g., lower cost, quality, product variety, customer service), but empirical examination of the impact of integration is rare (Prasad et al., 2001). A major premise of this discussion is that integration of the technology into sales force activities and interpersonal interactions, i.e., with the salespeople, would leverage the influence of salespeople and ultimately directly influence customer satisfaction. Thus, we can define the degree of technology integration as the degree to which salespeople use technology when interacting personally with customers in their sales activities. Technology used in other contexts (e.g., in the office for routine work) is not included.

Customer Satisfaction

Quite a lot of research has shown that service performance has a direct impact on customer satisfaction, particularly in the high-involvement situation (e.g., Churchill and Surprenant, 1982; Patterson, 1993). Sometimes also much satisfaction (or dissatisfaction) is
with the service encounter, as services are partly defined by the encounter, so that the service provider influences satisfaction. Salespeople are some of the key front line employees, so understanding the performance of salespeople is important in understanding customer satisfaction. Salespeople’s interaction with their customers plays a key role in organizational success or failure (Schultz and Good, 2000), and customer satisfaction is a critical performance indicator (Adsit et al., 1996). Simply assessing sales volume and/or market share is not sufficient for thinking about how to retain customers or enhance the customer relationship in a highly competitive marketplace.

Hence, successful service firms would focus their attention on both their customers and their employees, since the employees are the people who interact with customers and provide customer satisfaction. Piercy (1992) states that many organizations have increasingly recognized the need to view service personnel as customers, and to focus on both internal and external customer satisfaction. Thus, the front-line service employees would be viewed as internal customers in order to enhance efficient customer contact.

In summary, to determine whether the SFA systems implementation works well, one extremely important task is to investigate the attitudes of salespeople who use the SFA technology. In addition, if service firms employ the SFA system during the seller-buyer interaction, salespeople satisfaction toward using SFA can become a critical factor in external customer satisfaction. The customer satisfaction with service encounters with the salespeople will depend partly on the technology they see directly, and also partly on the attitude of the salespeople who are using the technology in the interaction.

**Internal Customer Satisfaction (Individual Salespeople)**

According to the internal marketing perspective, if the service organization wants its contact employees to do a great job with its customers, it must be prepared to do a great job
with its employees (George, 1990). Schneider (1980) found evidence that job satisfaction is a primary reason that employees deliver quality service. The attitude of the employee is a crucial factor in the performance of the customer-oriented company, not only in offering the basic product but also in offering all extra services (Vranesević et al., 2002). Thus, sales force acceptance would seem to be critical for successful implementation of SFA systems in many service industries, and usage of SFA does have an impact on sales performance. Attitudes towards information technology among salespeople need to be better understood since they are the main people to interact with external customers and they play a key role in the external customer relationship.

Keillor et al. (1997) found positive attitudes among salespeople toward using technology, which were measured and compared with level of experience and sales productivity. Both less and more experienced salespeople agreed that using computers as a part of their jobs made them more competitive and productive, and they perceived that computers are a viable means of interacting with customers. They also generally agreed that SFA technology contributes to their job satisfaction.

Salespeople are satisfied with their higher sales performance when modern computer technology allows them to produce more professional presentations, to provide more up-to-date data and analysis for customers, and to improve the “professional image” of the sales team (Engle and Barnes, 2000). Consequently, particularly in service industries, SFA technology can enable salespeople to improve service productivity and responsiveness as they interact with customers. Thus, implementing SFA technology in the sales force would not only enhance the level of internal customer satisfaction, but also external customer satisfaction. Customers would be influenced since salespeople could achieve customization and flexibility, improve service recovery, and provide spontaneous delight to their customers with SFA technology (Bitner et al., 2000).
External Customer Satisfaction

In a highly competitive environment, the ability to retain satisfied customers represents a tremendous competitive advantage for any sales organization. Sales effort which emphasizes relationship building is more likely to generate satisfied customers (Kelley, 1992). Technology, if it helps salespeople interact more effectively with their customers, can have an impact on customer relationships and external customer satisfaction.

Both interpersonal interactions and self service technologies (SSTs) have their strengths and also weaknesses. In Asian cultures, customers are more strongly familiar with interpersonal service, and cultural values favor interpersonal relationships more strongly than in the West, but some elements of interpersonal service interaction still cause customer dissatisfaction (Srijumpa et al., 2002). In other words, interpersonal interaction alone is frequently not sufficient, even in a strongly human relationship oriented Asian culture, to fully meet customer needs and requests and respond to service failures, so that satisfaction is maximized and dissatisfaction is minimized.

Similarly, even though technology-based services play a critical role in this digital era, technology alone is frequently not sufficient to fully gain customer satisfaction. Even in the West, Bitner et al. (2000) have pointed out that it is a dangerous strategy to force customers to use technology in the service encounter without other viable options. Most Thai customers, even if they are comfortable with technology, would switch service suppliers if forced onto the technology alone. In high level financial services such as insurance, much of the relationship with the company comes from trust in the salesperson (e.g., Rajatanavin and Speece, 2004). For online stock brokerage services, the lack of human interaction is one important determinant of customer dissatisfaction (Srijumpa et al., 2002).

However, drivers of satisfaction / dissatisfaction are somewhat different in human vs. technology based interactions (Moutinho and Smith, 2000; Srijumpa et al., 2002). Thus,
strengths of one could offset weaknesses of the other. Srijumpa (2002) discusses how integrating the internet channel and the interpersonal interactions could enhance satisfaction drivers for both interpersonal and SST interactions, and solve some limitations of each, reducing dissatisfaction. With SFA technology, the technology is already mostly integrated from the customer perspective, so it should be able to enhance sources of satisfaction and reduce sources of dissatisfaction. Thus, if contact employees integrate the SFA into their interpersonal interactions well, the technology could enhance perceptions that the salespeople are competent and customer oriented, while reducing the level of customer dissatisfaction with service delivery failures that come from the interpersonal side.

For example, in insurance sales, some customers do not trust technology to process their money, so they might prefer to interact with humans directly in transactions involving money transfer. In Thailand, the insurance salespeople might go to see the customers, who prefer to pay the policy payment directly to the salesperson they trust. (This is still common in Thailand, although payment at banks for deposit into the insurance company account is more common.) With SFA, the insurance salesperson can immediately enter the payment into the system when it is received, i.e., the integrated technology becomes a positive element enhancing the interpersonal interaction, rather than a negative as in a stand-alone SSTs.

**Conceptual Framework Development**

This review has so far summarized the key concept of technology integration and looked at satisfaction of both the external customers and internal customers – the salespeople. These are the basis of the conceptual model proposed here. Beyond this core part of the model, the moderating influence of technology readiness must be examined. Customers are different in how they perceive technology, as well as in their willingness to interact with technology. Hence, understanding the perceptions of both internal and external customers
toward technology is a challenge, since it may influence how much or how little the degree of technology integration influences the internal and external customer satisfactions.

**Degree of Technology Integration and Salespeople Satisfaction.**

Some of the major benefits that salespeople perceive from SFA systems implementation are that it gives them quicker access to better information, particularly when initiating customer contact (Engle and Barnes, 2000), as well as increases effectiveness through better customer targeting, time management, and call planning (Weeks and Kahle, 1990). A coherent management policy to integrate SFA technology also contributes to the salespeople’s ability to be customer oriented, because the system supports customer orientation. Then, of course, customer oriented salespeople are more likely to be more satisfied when they integrate SFA technology during interactions with their customers, because customers like customer oriented salespeople better.

In other words, a higher degree of technology integration should lead to higher salespeople satisfaction. The salespeople will feel that they are doing a better job when they are able to integrate the technology more. Presumably degree of technology integration may enhance the level of satisfaction of salespeople, thus:

**H1:** The greater the degree of technology integration by the salesperson, the higher the salesperson satisfaction with his/her job.

**Internal Customers (Salespeople) and External Customer Satisfaction**

Berry and Parasuraman (1991) suggest that in understanding customer satisfaction, organizations should consider customer expectations, how customers perceive service delivery relative to these expectations, and whether this confirms their expectations or not.
Since most of the service which is easily visible to the customer is delivered during the customer interaction, this satisfaction is highly dependent on the service interaction. The quality of the customer and salesperson interaction, as perceived by the buyer, is important in determining customer satisfaction.

Critical incident research, for example, has shown that when customers are confronted with pleasant, unexpected actions, the result is high levels of customer satisfaction (Bitner, 1990; Bitner et al., 1990). Customer satisfaction and employee satisfaction act on each other as cause and effect (Vranesevic et al., 2002). Ryan and Schmit (1993) found that customer satisfaction was positively related to employee perceptions of a manageable workload, lower stress, and opportunities for training and development.

Piercy (1995) suggests the need to further investigate the internal market aspects of the customer satisfaction issue, and to examine how to use internal marketing as an operational approach to handle the implementation issues implicit in external customer satisfaction. Salespeople are internal customers – they must be satisfied with the technology integration system if it is to be used well. Generally, salespeople have the most direct contact with the customer, and, as noted, the satisfaction of internal service personnel affects external customer satisfaction. Salespeople who are satisfied in their jobs are also happy to provide services to customers, which leads to enhanced customer satisfaction as well.

**H2:** The greater the salespeople satisfaction with their jobs, the higher the levels of customer satisfaction which will be achieved.

**Degree of Technology Integration and External Customer Satisfaction**

The interactive nature of many sales technology applications may also enhance the relationship process through customer empowerment (Keillor et al., 1997). The increasing
role of technology can provide substantial benefits for customers, but only if implemented well and if customers like dealing with the firm through technology. In SFA applications, though, the customer can gain many of the benefits without dealing directly with the technology. The degree to which technology is integrated into sales force activities can therefore influence the satisfaction level of external customers.

Customers are greatly satisfied with unexpected elements of a service encounter if the service employee pays special attention to the customer without having been requested (Bitner et al., 1990; Bitner et al., 1994). Customers could derive their satisfaction from interacting with salespeople who have integrated technology into their sales activities. Hence, integrating the technology into the human service encounter is likely to enhance the level of customer satisfaction.

H3: The degree of technology integration will positively influence external customer satisfaction.

These elements are fundamental issues in thinking about SFA systems. However, one additional element must be included in the proposed model: technology readiness, which is about customer perceptions toward technology.” Some people like technology quite a lot, some do not, and these attitudes are likely to affect the nature of the relationship between technology integration and satisfaction for both internal and external customers.

Technology Readiness in Service Industries

In general, customers have different views in how they perceive technology and in their willingness to interact with technology (e.g., Mick and Fournier; 1998; Parasuraman, 2000), as do salespeople (Parhasarathy and Sohi, 1997). Hence, understanding customer and
salespeople perceptions toward SFA technology in the salespeople – customer interaction is a challenge to the present study, necessary for better conceptualization of the issues here.

On the practical level, understanding perceptions toward technology is also important in managing implementation of SFA systems. There is evidence of increasing frustration among both internal and external customers in dealing with technology-based systems. Technology can facilitate feelings of intelligence or efficacy, but it can also lead to feelings of ignorance or ineptitude (Mick and Fournier, 1998). Consequently, internal and external customers may have positive and/or negative feelings about technology.

Parasuraman (2000) has proposed the Technology Readiness Index (TRI) to measure such customer perceptions of technology. The TRI is a multiple-item scale that companies can use to gain an in-depth understanding of the beliefs and attitudes toward technology which indicate readiness among customers (both internal and external) to interact with technology. Parasuraman (2000) defined technology readiness as people’s propensity to embrace and use new technologies for accomplishing goals in home life and at work. In his conceptualization of TR, customer perceptions of technology fall into four broad dimensions: optimism, innovativeness, discomfort, and insecurity.

Each customer has a different level of willingness to embrace and use new technologies, resulting from interaction between drivers (optimism, innovativeness) and inhibitors (discomfort, insecurity) of technology readiness. When customers’ net perception of technology is positive, they will use technology more than they did in the past. These optimistic and innovative customers (internal and external) enjoy using technology since it allows them to be more effective and/or efficient in their jobs and personal lives. On the other hand, pessimistic internal and external customers want to see the benefits to technology proved before they make a decision to use it. Many pessimistic customers believe that the benefits of new technologies are often overstated. Such customers who perceive technology
negatively may prefer to deal with interpersonal services rather than use SSTs in business transactions (Srijumpa, 2002).

Technology Readiness of Internal Customers

Though advances in IT have resulted in important changes for all functional areas in service firms for several years, there has not been very extensive examination of determinants and degree of technology acceptance by employees who directly implement technology (e.g., Davis 1989; Venkatesh and Davis 1996). In a sales context, a Singapore survey shows that salespeople believe IT is important for many applications in interaction with customers, but the strength of this belief depends on which product categories their firm is most involved in (Speece, 2000). Parthasarathy and Sohi (1997) show that less experienced salespeople would be more accepting of changes toward computer technology than experienced and traditional salespeople. Higher performance salespeople were more likely to feel that technology can make them more competitive and productive.

Technology Readiness of External Customers

Many observers view information technology as a strategic resource that facilitates major changes in competitive behavior, marketing, and customer service in service firms. Where customers see the technology, this can bring positive benefits if customers are positively inclined toward technology. Customers might have a positive view of technology and belief that it facilitates feelings of more control over things (Dabholkar, 1996). However, technology can also lead to feelings of ignorance or ineptitude (Mick and Fournier, 1998), so some customers may dislike it when it is brought into the service interaction. Srijumpa (2002) shows that TR affects customer satisfaction and dissatisfaction with both interpersonal service interactions and SSTs.
The Moderating Effects of Technology Readiness

As Mick and Fournier (1998) suggest, both internal and external customers may have positive and negative feelings about technology. Different salespeople have different views toward technology; some like it more and some dislike it. The impact of degree of technology integration on salespeople satisfaction might be influenced by the technology readiness of salespeople. Salespeople who like technology should be more strongly satisfied when they integrate it than those who do not like it.

H4: Technology readiness of salespeople will moderate the relationship between degree of integration and individual salespeople satisfaction. In other words, technology readiness influences H1, and more TR should lead to a stronger relationship.

As also noted, customers see something of the technology when the salesperson uses it, and can tell if it is integrated into the salesperson’s interaction with them. However, the salesperson is an intermediary between the technology and the customer, and customers do not have to deal with the technology directly. Some salespeople even assess how receptive customers are to technology, and adapt the way they use technology in the customer interaction (Larpsiri and Speece, 2004). Thus, satisfaction with salespeople using technology should not depend on how much technology readiness the customers might have. Thus:

H5: Technology readiness of customers will not moderate the relationship between degree of integration and customer satisfaction. In other words, TR of customers has no impact on the relationship in H3.

These five proposed hypotheses are summarized schematically in Figure 1.
Figure 1: Conceptual model: technology integration and customer satisfaction

Conclusions

The most prominent contribution of this discussion is proposing a way to conceptualize the role of SFA technology in contributing to customer satisfaction. The SFA literature has rarely examined the customer satisfaction side directly, and it rarely looks at how salespeople use SFA, as opposed to how much they use it. Thus, the model proposed here motivates the inclusion of SFA technology into models predicting internal and external customer satisfaction, and, importantly, suggests that the amount of technology used is not the only issue. The way the technology is used is quite important.

Technology integration allows technology to improve interpersonal interactions and enhance personal relationships, which is especially critical in high level financial services. In fully integrated SFA systems, customers might not even think about the technology at all, because it becomes simply a routine part of their interpersonal interaction. This is critical, as
is the need for the salesperson him/herself to play an important role in this integration. SFA integration, then, is about salespeople using SFA to enhance relationships with customers, not about using technology to replace the salesperson’s role in the customer interaction.

Further, many customers who are strongly familiar with interpersonal services may never be satisfied with purely technology-based services. This is probably even more important in the relationship-based cultures of Asia. Customers seem to want technology to be integrated into interpersonal relationships, not to replace them, regardless of their own personal technology readiness. Larpsiri and Speece (2004) even cite cases of IT managers who, despite their own very high technology competence, want the human relationship with insurance salespeople. The perception of customers is that salespeople can use technology to solve their problems, helping to develop a sense of trust and satisfaction that is likely to extend their relationship. The salespeople are the critical element in the interaction and relationship, and technology’s role is a support element that helps them develop their relationships.
References


