



CUSTOMER SATISFACTION MODEL AND ORGANIZATIONAL STRATEGIES FOR LAND REGISTRATION AND CADASTRAL SYSTEMS

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ABSTRACT: Many land registration and cadastre offices have now tremendous pressures from various public and private sectors to improve their workflows of the systems for land registration and cadastral surveying including archiving historical documents of deeds/titles and maps. In this era of Information Technology, the use of computers is seen as immediate solution for reengineering these systems and digital archiving. But the pressures have not only to do with the improvement of internal digital workflows and archiving but also to improve the customer satisfaction with the services and products offered by these digital systems.

Since the customer satisfaction and relationship are the most important, it is argued that the customer satisfaction model should be an integral part of organizational strategy model to delivery efficient and effective services and products to the customer. Customer satisfaction model normally relates to the delivering superior relative perceived value, getting substantial base in the market and gaining profitability via scale economies. Moreover, the relationships with customers are strongly dependent with the roles that both organization and customers have to play during interaction.

In this research paper, we discuss two issues on the customers and organizations relationships for the land registration and cadastral

systems. First issue concentrates the elements of customer satisfaction model and second issue deals with how this model can be incorporated into an organisational strategy model that could be either a push strategy or a pull strategy of reengineering process.

1. Introduction

The main aim of this research paper is to summarize the main elements of the customer satisfaction that are important to effectively operate land registry and cadastral systems, and information requirements as a part of need assessment as a strategy of implementing organization with respects to their customers. Instances of customer orientation with cases in Nepal and Bhutan are discussed and the traditional concept on satisfactions such as economic and non-economic satisfactions is highlighted in the section two.

Section three discusses the concept of perceived value, which plays the substantial role in getting customer satisfaction on services and products. The equation of perceived value and the effects of S-Curve are then discussed and seen as strong bases in the market orientation and gaining profitability.

Section four further elaborates on market orientation and satisfaction model where non-coercive strategy plays the prominent roles in effective communication between the suppliers and customers. Conflict management, trust and perceived value are leading elements in achieving customer satisfaction.

Last section five, emphasizes the need assessment as a part of the organizational strategies. To this end we have identified essential information that need to be derived from the relevant customers involved in the relationships with organizations.

2. Customer orientation in land registration and cadastral systems

It is generally known that in many developing countries, their land registry and cadastral systems suffer very much from the lack of customers' needs on their services and specifications. The lack of customer demands/needs probably also means the lack of meeting customer demands. These systems usually have a variety of many customers ranging from the land surveyors, real-estate officers, lawyers or solicitors, settlement officers, planners, valuers, etc. In some countries, these systems are combined under one organization, while in other countries they are separated under the different organizations. In both case, the information exchange and cooperation between the organizations are the key issues that need to be tackled for providing information to all customers involved in the land issues.

From the operational point of view, there are countries, where land registrars are very active in land registration, while in some other countries, land registration and cadastral systems have land registrars who have only passive role. Referring to the systems in Nepal, the district land registrars play a major active role in adjudication

and registering land transfers (Tuladhar, 2003). Here it is important that the systems are designed to focus towards not only to supply land information but also to provide the services such as helping on negotiation according to laws, settlement of disputes, detailed investigation of deeds and registrations. In these situations, satisfaction constitutes a construct of vital importance in the explanation of any type relationship between organizations and customers. The operations of the systems are highly dependent on the relationships that land registrars have with their customers (buyers and sellers in particular). The relationships in Nepal are normally maintained through a broker (or Lekhanda¹) who helps buyers/sellers to prepare and process deeds inside the district offices. Normally these brokers have very good relationships with the land registrars. Thus, for the quality services, these relationships between the district land registrars and customers can greatly be enhanced by making involvement with customers, information exchange and attention to customers for the final products (Forza et al, 1998). In this case, satisfaction can be considered as a positive, affective state, resulting from the evaluation of all aspects of the relationships between them.

In Bhutan, land registry office plays only a passive role in the registration processes, while the local courts and district magistrates (Dzongkhags) play the key roles in settlement and land transfers according to the land laws (Tuladhar, 2003). Land registry and cadastre systems of Survey of Bhutan maintain land records and supply land information to all customers. In this case involvement and communication with Ministry of Home Affairs, the District Magistrates, the local courts and other customers are extremely important for effective uses of land records.

In the context of cadastral systems in the Netherlands, van der Molen (2003) emphasizes six elements in order to make land registry and cadastre more structurally effective, namely the continuous awareness in customer requirements, products and services in compliance with the specifications, compliance with delivery schedule, rapid resolution of problems, settlement of complaints in a manner acceptable manner and the provision of support to customers in their use of the information they receive. He also provides a model for customer satisfaction with perception and expectations as key elements for satisfying customers of land registration and cadastre.

Traditionally, satisfactions may be divided into the economical and non-economical satisfactions of the relationships in delivering and using services and products as shown in the figure 1 (Sanzo et al, 2003).

Economic satisfaction can provide a positive affective response due to the effectiveness and productivity of the relationship, and to the financial gain. On the supplier side, more productivity means more financial gain with less cost of production. On the customer side, more effective products and services mean more financial gains in using them.

Non-economic satisfaction comes from a positive psychological response that a satisfied participant enjoys working with the partner, given the belief that the latter is concerned for their welfare and willing to exchange relevant information with them.

¹ A person who helps the buyers and sellers in drawing up deeds of transfers.

This is particularly important in land registry and cadastral systems; it comes from the social context in which market exchange is developed.

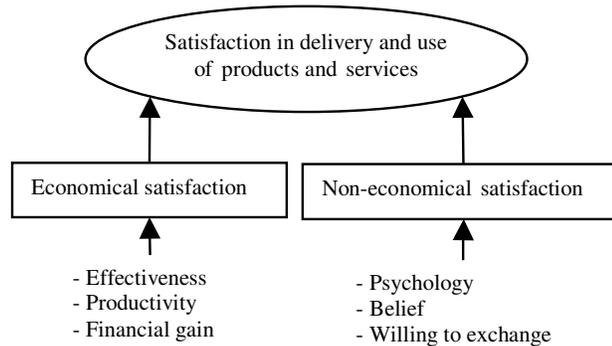


Figure 1 : Traditional satisfaction concept

In both of these satisfactions, three main contributing factors seem important (Sanzo et al, 2003):

- Effective bidirectional communication between the parties: This implies information exchange at the multiple exchanges and domains, performed regularly and whenever necessary. It is possible that effective communication between the parties exerts a positive influence on trust.
- Satisfaction can be related to the degree of conflicts. Non-coercive influence strategy on the part of the supplier's organisation may reduce the conflicts.
- Satisfaction depends to a greater extent on the perceived value of the products and services. In the quality service models, the perceived value is considered as a determining factor in customer satisfaction.

3. The concept of perceived value

The concept of perceived value is an important element of customer satisfaction. It brings customers confidences, attractiveness, appreciations and satisfaction trends on the services and products. However, our research indicates that customer expectations depend on the features of products/services, system structures and customer relationships.

In understanding the perceived value in relation to the cadastral systems, customers expect the products and services suited to their needs of required quality, reliable, user-friendly, customized to their requirements for the uses. Customers buy information not for their features or their specific functionalities, but rather for the perceived benefits that the products deliver. Features and functions, which are often the focus of product design specifications, are simply the 'envelop' for delivering the benefits that are desired by customers. Customer perceptions are critically important.

A product may meet objective of performance criteria (i.e. validated by internal tests), but an organisation only gets credit if the customers recognize that the product delivers the benefits.

Here the system structures means the structures of the information system that needs to be convenience, flexibility, efficient delivery time and required supports for the information supplied. They assess the organisation's ability to support their commitments and give customers what they need (convenience, accurate information, flexibility in ordering, etc.). For example, any tendencies to over promise and under deliver would affect on the perceived value.

The elements of customer relationships that affect perceived values as seen by the customers are based on the competence, openness, dependence, communication, trust and respect on two parties concerned. The human touch can make all the difference in customer loyalty. Competent representatives who understand what is and is not happening, and develop a bond *of trust and respect with their customers*, often form the foundation for long-term customer relationships, even informal partnerships.

Mistakes happen, and if they are handled appropriately, they have minimal effect on customer satisfaction. In fact, marketing research suggests that superior problem resolution can actually strengthen customer loyalty by improving customer confidence in the organization's ability to deliver what was promised or quickly make it right.

Normally customers make decision to purchase the products considering perceived price, which might be just the cost of producing the product. But this not necessarily reflects reality. Actual price may be calculated as the sum of total cost of production, minimum profit and price range as follows.

$$AP = \sum (TCP + MPR + PR)$$

Where AP is actual price, TCP is total cost of production, MPR is Minimum profit gained by organization, and PR is Price range depending upon the market orientation.

From the organizational point of view, the above equation suggests that it is possible to set minimum price ceiling and still earn acceptable profits from the point of view from the organizational strategies for maintaining various resources.

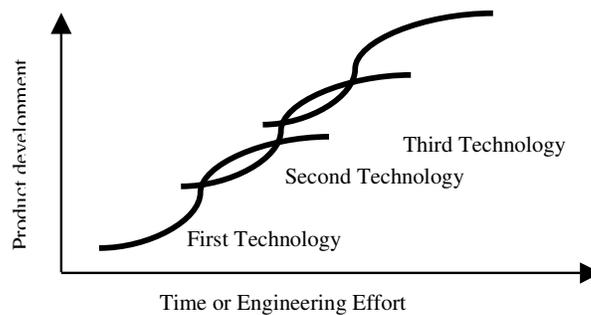


Figure 2 : S-curve economics (adopted from Nolan, 1973)

The effect of S-curve economics: S-Curve is based on so called stage theory from Nolan (1973). According to this theory, the perceived value as perceived by the customers can be different after certain period of time due to new technological impact on the system product development. S-curve in the figure 2 suggests us that during initial periods of system operation the rate of performance improvement starts gradually, then accelerates and slows again as it approaches performance limits using the first available technology. During these periods, the price ceiling might have been minimum whereby the customers are already satisfied with the products and services what they get. However, in the course of time, new technology would push the organizations (suppliers and customers) to deliver the products and services in a new way. This requires huge investment in term of finance and capacity building for changing the system features and functions. Similarly in the next generation of technology also shows similar behaviours.

This suggests us that the high levels of satisfaction may be constrained by S-curve economics, since it may be too costly to provide the services and products required to satisfy the customers at the high level. It may also be possible that if an organisation makes delays in using the next generation, there may be risks for its survival to capture its market share. On the customer side, it is important that customers should understand why there are the difficulties on the supplier side to achieve the high level of satisfaction. Therefore, the relationships with customers are strongly dependent with the roles each party has to play in achieving satisfaction on both sides.

4. Market orientation and satisfaction model

Market orientation is considered as influential factor in the customer satisfaction, because in order to perform well, organisations needs relevant and timely information about the markets i.e. their customers and stakeholders or competitors (Otten et al, 2002). Because opportunities and threats continuously change e.g. due to the move made by stakeholders or competitors, the emergence of new technology, or shifts in customers' preferences and behaviours, the market must continuously be surveyed. In land registry and cadastral systems, similar behaviours can be seen (Oosterom et al, 2002). Therefore we argued that the continuous stream of market data need to be collected, interpreted, distributed among organisation members, and be adequately utilised and exploited to stay competitive in the market.

Market orientation promotes the acquisition of information on customers, competitors, suppliers and environmental forces in such a way that all this information can be treated collectively by the organisation, with the end of creating and maintaining an offer that generates greater value. It is also considered that effective communication between the parties possesses a market orientation culture in building satisfaction, and combination of market orientation and noncoercive strategies would require effective communications with customers as shown in the figure 3 (Sanzo et al, 2003).

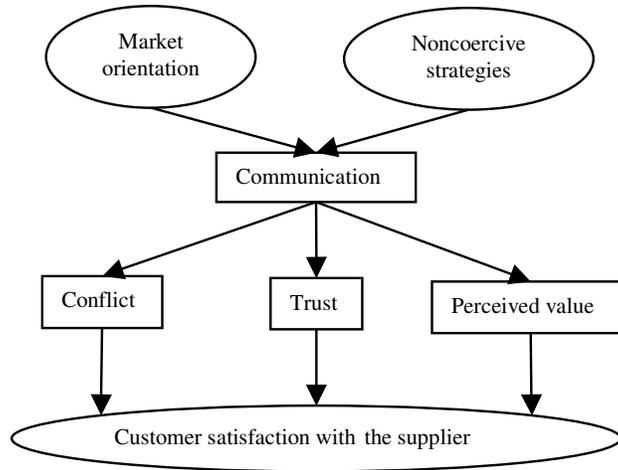


Figure 3 : Satisfaction model relating market orientation (adopted from Sanzo et al, 2003)

In the structural building of a long-term relationship for the customer satisfaction, an effective communication system needs to be placed. The roles of each participants (including customers and suppliers, must be clearly specified taking all the aspects that may potentially create occasions for conflict. Such initiative should lie with both suppliers and customers; the leaders in both parties involved in the relationship must fulfill an absolutely essential role in putting this strategy into effect and minimizing the level of conflict that may occur. To be more effective the contacts must involve all levels of organisations. Initiatives such as the creations of multifunctional teams with individuals from the both organisations, the design of training programme or the use of structured forms may be done by the specialists of suppliers' organizations, customers and/or the directors of the organizations. For all, it is absolutely essential to have efficient information management system and databases focusing on the customer needs and services e.g. electronic front door system. In addition, intra-organizational communication with each respective organization is required for effective inter-organizational communication.

As we discussed above, the value perceived by the customers increases satisfaction and similarly trust is also contributing factor to satisfaction. The maintenance of open lines of communication with the customer, a service guarantee and a higher standard of conduct contribute to the degree of trust.

Similarly, the effective communication contributes achieving higher perceived value at all the levels of organizations.

5. Need assessment as a part of organizational strategies

In order to make organisations competitive and effective, it is essential to include the elements of the customer satisfaction as a part of the organisational strategies. Within the strategic management concept, the first way to reduce threats and weakness is to conduct need assessment regularly with all customers involved in the information flows. People performing need assessment should be able to step into a customer's role and listen carefully to the customers following the noncoercive strategies. In careful listening it is important to take into account and understand customer's background and values, map customer's problems and opportunities, and to notice unspoken concerns (Kärkkäinen, 2001). Secondly the suppliers always needs to keep informing all newly changes in the products and services including the roles that the customers' roles, the suppliers continuously gets feedbacks on the products and services. These are important organisational strategies to keep always customer satisfactory.

In need assessment programme, the following are essential information that needs to be assessed from customer's viewpoint (Kärkkäinen, 2001), and the need assessment can be part of organisational strategies to be continuous vigilant to the market orientation:

- Customers and their market segments;
- Customers objectives, problems, requirements and needs;
- Customers' business environment, requirements and needs;
- Structured picture of business chain and stakeholders;
- Customers' real needs and technical requirements, and comparison criteria;
- Information of needs that should be given special attention and target levels;
- Common, prioritized view of most important needs, competitive situation and product attributes;
- Most vital product concepts – strength and weakness of concepts;
- Most probable problem sources and customer's possible negative views of the products and rough estimate of probability;
- Estimate of product competitiveness in the market.

Need assessment for product development (such as cadastral domain model) should be seen as a broader task for organization not just seen as single activity in the beginning of the product development. It should be carried out continuously in order to get need information early enough for product development decisions.

To safeguard the continuous need assessment and satisfaction monitoring, the various levels of the organization should be involved. First of all the day-to-day contacts with the customer should be organisationally embedded. Therefore, organizations create the account management function, providing opportunity for good customer relationships. At managerial level, directors should focus on good relationships with umbrella organisations of customers, like Associations of Solicitors. A sideline benefit is that within the umbrella organizations expectations are coordinated and communicated in a natural way. At top level (director general, board members) organizations should institutionalise good customer contacts, in the form of

a user board or alike. One might even consider expanding such institutionalised meeting points to participation of stakeholders in general. At the same time, establishing customer relations at various organizational levels, requires good internal communications. Nothing will lead to more customer-confusion than different communications from different levels.

6. Concluding remarks

This paper summarizes three main issues namely: traditional satisfaction concept, the concepts of perceived value and satisfaction model incorporating market orientation that are fundamental to the customer satisfaction. It also emphasizes on the conflict management, trust and perceived value as important components on the effective communication.

Need assessment with involvement of all customers for the product development cycle is a must as a compulsory item of the organizational development strategies through noncoercive strategies.

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