Customer Involvement in Service Innovation in Banking Sector of Pakistan

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Abstract
Customer involvement in service innovation has a positive impact on the performance and growth of banking sector. Prior studies recognize only importance of customer involvement in service innovation. Yet the researchers have not explored the relationship between technology advancement and customer involvement. The process of customer involvement in service innovation with mediating effect of technology is investigated by conducting quantitative research in banking sector of Pakistan. Data was collected by standard questionnaire. For data analysis, correlation coefficient was used through IBM SPSS Amos Software. The findings suggest that there is significant relationship between technology, customer involvement and service innovation.

Keywords: Customer involvement, service innovation, technology, quantitative study

1. Introduction
One of the most important factors in the national economies and in the developing countries is the services sector. There is highest contribution of services sector in the European countries and the work force is employed two third of the whole economy. The turnover of services sector is greater than industrial sector in most of the economies. Many countries are more focus on the services sector and less focus on the industrial sector. This change is required less investment for the natural capital or resources and more investment for the human power or capital and also more focus on the educated and skilled work force, national resource are less required.

Innovation in services, new or improved service products (commodities or public services). Often this is contrasted with "technological innovation", though service products can have technological elements. This sense of service innovation is closely related to Service design and "new service development". Customer involvement is about identifying and developing possibilities to involve customers in the business and product development process, such as design, marketing, sales, customer service, etc. The degree of involvement can be as far as to make the customer a part of the product, experience and delivery. Innovation in services, new or improved service products (commodities or public services). Often this is contrasted with "technological innovation", though service products can have technological elements. This sense of service innovation is closely related to Service design and "new service development". Customer involvement is about identifying and developing possibilities to involve customers in the business and product development process, such as design, marketing, sales, customer service, etc. The degree of involvement can be as far as to make the customer a part of the product, experience and delivery. Innovation in services, new or improved service products (commodities or public services). Often this is contrasted with "technological innovation", though service products can have technological elements. This sense of service innovation is closely related to Service design and "new service development".

Previous studies show that rapidly changing business environment has led to an upsurge in the innovation related activities in the financial service sector. Customer involvement is about identifying and developing possibilities to involve customers in the business and product development process, such as design, marketing, sales, customer service, etc. The degree of involvement can be as far as to make the customer a part of the product, experience and delivery. Innovation in services, new or improved service products (commodities or public services). Often this is contrasted with "technological innovation", though service products can have technological elements. This sense of service innovation is closely related to Service design and "new service development".

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So in our research we will try to understand the extent of customer involvement in service innovation related to some developing country and specially Pakistan.

Different variables are used in this research. Dependent variable is service innovation and independent variable is customer involvement “Customer involvement is the processes, actions and relations where a service provider works together with current or potential customer to learn about the market and change organizational behavior”. Purpose of customer involvement, Stages of involvement, Intensity of involvement and modes of involvement are customer involvement factors. Technological changes and advancement are used as mediator. This factor impact on both customer involvements has service innovations.

1.1: Purpose of Study
The purpose of this research is to identify opportunities for service organizations to involve customers in service innovation process. And examine that how much service innovation can bring a competitive advantage to a firm.
through customer involvement. And how technological changes impact on service innovation and customer involvement.

1.2: Research Questions

- What is the relationship between technology and customer involvement?
- What is the impact of technology advancement on service innovation?
- What is the impact of customer involvement on service innovation?

1.3: Significance of this research

This research is conducted to see the effect of customer involvement in the services sector of banking. It is beneficial for the bankers how much they must have to involve their customers for the service innovation because when customers are involved they become more committed to services of banks, they use more frequently that services in which they involved as a result, from this factor banks can expand their services level and more mark-up.

2. Literature Review:

In literature review the relevant researches and theories related to service innovation and customer involvement are discuss. This literature will provide the concept of innovation and customer involvement in the banking sector of Pakistan.

2.1 Customer Involvement:

Overall services will be improved and successful (Parasuraman, 1987). Customer involvement gives the close information and does relationship or suggestion which actually customer wants the services and gives the diverse information (Granovetter, 1982; Granovetter, 1992). Helpful for the long term relationship with users (Kelley, 1992). The users or customers give the inputs for the new service development. Customers have not well experienced and have no ability of identify novel product attributes because they had no well awareness of product. So the customers leads well positioning by the almost same reasoning (Mckema, 1995; Wind & Mahajan, 1997). The quality of the service improved by getting the information from customer (Berry & Parasurman, 1997). The perception about the service is overseas with interaction (Bradly & Cronin, 2001). Customer orientation has plays a vital role to provide the valuable services in the service market issues and selection of services innovation (Swan, Bowers, & Grover, 2002). Users are use for co production (Bettencourt, Ostrom, Brown, & Rowntree, 2002).

Magnusson (2003) says that customer involvement in service provides the original ideas for the organization more effective but less reliable. Customer involvement in the new tangible products more effective prospective but the interaction with the customers gives the quick response for change or innovation (Bierns, 1991; Gruner & Homburg, 2000; Voss, 1985). More attention is paid on the customer’s interaction for the new service development (Alam, 2002; Magnusson, Mathing & Kristensson, 2003). Customer involvement has great impact on services innovation proved by the medical on research which tested on the customers thinking (Fredrickson 2003). Customer involvement easily showed the ratio of the negative and positive aspects (Losada and Heaphy, 2004). Satisfaction of customer needs is the assets for the firm (Gupta and Zeithaml, 2006). Through customer involvement easily judge the customer perceptions of value creating activities (Chan, 2010). Mostly companies involve their customer about customer satisfaction; it varies in different stages (Svensson, 2011). Wideroth (2011) states that companies develop a great innovation power with help of customers.

Customer involvement has different factors.

- Purpose of customer involvement
- Stages of involvement
- Intensity of involvement
- Modes of involvement

These four factors describe the theoretical framework of this research.

All factors are interrelated with each other and affecting each other.

2.1.1 Purpose of customer involvement:

The knowledge about the customer needs is tacit, which create difficulty to transforms the knowledge from the customer to the host (Von Hippel, 1994). Company purpose is not only creating the new ideas for services but also in the rest of innovating process. Customers are helpful for creating the new ideas and innovative services (Nambisian, 2002). Customer involvement generates the better services and more differentiated services to knowing the needs and wants of customers (Alam & Perry, 2002). The purpose is defined that what to innovate the services and how to take actions and making the strategies to know about the customers what types of services could be want and it will be a major advantage for the company if the company really know about the customer needs and the satisfaction of that needs (Lundquist & Yakhlef, 2004).

Alam (2006) argues that the front eye contact and front end stage is create fast cycle in the service
innovation and gain the first mover advantage for the organization. The different types of customers and the different objectives which involve the customer are depending on the innovations to the creation of companies services (Lettl, 2007). Customer involvement chosen carefully, attract the customer with high motivation, certain knowledge or certain participation of customer (Kristensson, 2011).

2.1.2 Stages of involvement:
Alam (2002) stress bon the idea generation, idea screening and business analysis when it comes customers input because the many ideas can be generated. Perry (2002) says that the constant flow in the service of new ideas is useful for the success. The customer involvement in the service process is positive influence of the performance and also be differentiated from the service of the competitors. Specific goals are made for the interaction needs set for customer innovation process (Alam, 2006).

Alam (2006) idea generation is occurring for how to come up with the new services innovation ideas. The technological change effects develop the innovations in services; company is dependent on technology and the capabilities (Lettl, 2007). Zolfagharian & Paswan (2010) says that new services go through different stages
• perceptual and evaluative process for goal setting
• emotional acceptance and resistance
• coping responses
• adopting decisions
Wideroth (2011) states that customer have a lot to offer in every stage of the service development process, from idea generation to support the customer.

2.1.3 The intensity of involvement:
Firms should involve the customers for getting the competitive advantage and also involve their employees (Nambisian, 2002). The service organizations should have to try fully involve in the services process for creating the innovative ideas organization have need to high intensity of customer involvement (Lundquist & Yakhlef, 2004). The interaction of users shows that it is helpful for the supporting tangible product and also creates the highly relationship with the users and this relationship is very important of organization (Matting, 2004). How much customer involvement influence on service innovation (Lundquist & Yakhlef, 2004). The relationship with new customers sometime creates conflicts with the old users or loyal customer they not want the innovation. So the new customers should be helpful for the development of new services, old users have to motivated by this and make them more loyal (Alam, 2006). Lettl (2007) says that intensity of involvement create customer passive role in the process of innovation.

2.1.4 The modes of involvement:
Von Hippel (1994) argues that reading the customers very deeply to understand the customer’s needs which make a difference to others. Sinkula (1994) says that communication with the customers and the suppliers of your product will leads to better understand that what actually customer wants. The suggestions from the customer for improve your org performance (Piahad & Ranawaswamy, 2000). Using these ways telephone conversations, meetings with the customers, customers observation, e-mails and the feedback of the customer in the process of services innovation (Alam, 2002).

The organizations are facing three major challenges
➢ is to find the actual users who have to involve
➢ is how the incentives or opportunities give to users for willingness
➢ is to how the new customers will be captured with using the new techniques (Nambisian, 2002).

How the companies gains the information from their users and how to make the strategies for the solution of the problems and getting information and knowledge of the customers for this purpose the companies use the different way brain storming, personal face to face interviews and also non interaction way telephone feedback and make mails or corresponding (Magnusson, 2003).

The ideas of customers are a source for companies to create the new innovative services and this process is on continuous basis (Magnusson, 2003). Customer should innovate their environment own by only observe the users because sometime interviews cannot achieve the right result (Mathing & Sanden, 2004). To judging the average customers is very hard time because they should be loyal or not for capturing those customer read their real life how they are living and actual want (Alam, 2006).

2.2 Technological advancement
How a customer is involved and how impact on service innovation. In banking sector different ways of customer involvement are introduced to generate new ideas and generate new development in services New technology is come with the passage of time so companies needs to know about the knowledge of new technology as well as attracts the new customers (Sawnhey & Prandelli, 2000). What type of technology is use currently and what should be use in future and how to implemented the users or customers have knowledge to identify the inappropriate features which are not applied it could be used by the companies to reduce the company cost and differentiated from others and also better understanding of customers needs which are different types or similar nature
(Nambision, 2002). Many companies tending toward inbound or technology searching aspects of open innovation (Bianchi, 2010).

2.3 Service Innovation:

Idea generation is subjected to be intense scrutiny because the idea generation take the meaning or describes the others stages of service innovation (Rochford, 1991). All previous studies take more attention on idea generation for understand poor services and stress on new idea generation techniques (Sowrey, 1990; Wagner & Hayash. 1994). There are different stages of service innovation like idea generation, idea screening and idea selection of the idea of new service (Perry,2002; Scheuing & Johnson, 1989). The growing work of research says that an organization will significantly manage and boast the developing of the service innovation and gain the success (Darl & Moreau, 2002; Khurana & Rosenthal, 1997). The studies have focuses on more impotence to the idea generation. Customer plays a vital role in service innovation he gives the external information for generating the new services (Alam, 2002). Steven and Burry (2003) states that “the first few plays of the game determine the outcomes”. Compare the expectations of customers with company’s services and evaluate the results that are positive or negative or meet the customers need or expectations (Cronin and Taylor and Dellande, 2004). Mostly customers are often check the benefits of new service if the attributes are preferable or if its price value (Kristensson, 2011). In banking sector face to face meeting is reliable it is difficult to maintain the relationship with customers through internet, mobile phones and telephone that are the most common way of banking sector (Wideroth, 2011). Customer involvement rising new level with help of toolkits, toolkits provide new way to create new ideas, open source of innovation (Svensson, 2011).

2.4 Theory

When a person is emotionally involved in an issue they will process information and hence react in a different way to when the issue is not important and they are not really paying attention to it. Involved people want to make their own decisions. Non-involved people do not want to put effort into decisions and will probably let you tell them what to think. Involved people want clear and sufficient information from which to draw conclusions. People can be encouraged to become non-involved people when they are snowed with a lot of complex information. Quantity may thus be inaccurately equated to quality. This involvement theory is related to our research in which customer involvement is included in service innovation. How the customers are involved in different situations and how they react.

2.5 Conceptual framework of the research:

Fig 1: conceptual framework

2.6 Hypothesis:
H:1 There is positive relationship between technology and customer involvement.
H2: There is positive relationship between customer involvement and service innovation.
H3: There is positive relationship between service innovation and technology advancement.
H4: There is significant relationship between technology, service innovation and customer involvement.

3. Methodology:

This section discusses the research design, population, sample size and instruments used to measure the variable of the study.

3.1 Research design

Descriptive research design was used to collect the data. This type of data collection method was used as it was less expensive and facilitated in collecting responses within a short period of time. The design was appropriate because the main objective was to explore the relationship and describe the variables.
3.2 Population
The target population of this study was the customers of banks. Those are using bank facilities in Pakistan.

3.3 Sample Design
From the above population we were using simple random sampling which gives each item in the population an equal and known chance of being selected. The sample of the study consisted of 170 customers of different banks in two cities of Pakistan cities Multan and D.G.Khan. Total of 170 questionnaires were distributed, 150 questionnaires were returned and these questionnaires were suitable for data analysis.

**Table 3.1:** The Main Characteristics of the Sample (N = 150)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>101</td>
<td>67.3</td>
</tr>
<tr>
<td>Female</td>
<td>49</td>
<td>32.7</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-25</td>
<td>118</td>
<td>78.7</td>
</tr>
<tr>
<td>26-30</td>
<td>29</td>
<td>19.3</td>
</tr>
<tr>
<td>Above 30</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td><strong>Qualification</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>14</td>
<td>9.3</td>
</tr>
<tr>
<td>Graduate</td>
<td>57</td>
<td>38.0</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>79</td>
<td>52.7</td>
</tr>
</tbody>
</table>

Table 3.1 presents the main characteristics of the sample. About (67.3%) are male and (32.7%) are female. About (78.7%) are 21-25 age and (19.3%) are 26-30 age and (2%) are above 30 age. About (9.3%) are under graduate and (38%) are graduate and (52.7%) are postgraduate.

3.4 Measure
The questionnaire was the primary data collection instrument. The questions were designed to collect quantitative data. General questions are included like age, gender and qualification. A five point likert scale was used ranging from 1 (Strongly Agree) to 5 (Strongly Disagree).

3.5 Data Analysis
Data analysis includes the relationship of different variables using in research. SPSS Amos version 20 has been used to analyze statistical data of the study and for evaluate the hypothesis. The reliability of the questionnaire has been checked of 150 customers of different banks. The Cronbach's coefficient alpha is (=0.803) and reliability is determined and questionnaire is accepted. Individually customer involvement questionnaire Cronbach's coefficient alpha (=0.670), technology advancement questionnaire Cronbach's coefficient alpha (=0.638) and service innovation questionnaire Cronbach's coefficient alpha (=0.643).

3.6 Descriptive statistics
Table 3.2 presents the descriptive statistic of all variables of the study. Customer involvement mean (M= 1.8747) and technology advancement mean is (M = 1.9656) and service innovation mean is (M = 1.9292).

**Table 3.2 Descriptive Statistic**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI</td>
<td>1.8747</td>
<td>.45689</td>
<td>150</td>
</tr>
<tr>
<td>TA</td>
<td>1.9656</td>
<td>.55405</td>
<td>150</td>
</tr>
<tr>
<td>SI</td>
<td>1.9292</td>
<td>.50322</td>
<td>150</td>
</tr>
</tbody>
</table>

3.7 Correlation analysis
Correlation results presented in table 3.3 indicate that there was significant positive relationship between customer involvement and technology advancement (r = .517, p<0.01). There was significant positive relationship between service innovation and technology advancement (r = .578, p<0.01). A significant positive relationship between service innovation and customer involvement (r = .657, p<0.01). In addition, there is significant positive relationship between technology, customer involvement and service innovation (r = .326, p<0.01).
### Table 3.3 Correlation

<table>
<thead>
<tr>
<th>Variables</th>
<th>CI</th>
<th>TA</th>
<th>SI</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA</td>
<td>.517</td>
<td>1</td>
<td>.578</td>
</tr>
<tr>
<td>SI</td>
<td>.657</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

#### 3.8 Regression analysis

### Table 3.4 Regression

<table>
<thead>
<tr>
<th>No</th>
<th>DV</th>
<th>IV</th>
<th>Beta</th>
<th>T</th>
<th>Sig. T</th>
<th>F</th>
<th>Sig. F</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CI</td>
<td>TA</td>
<td>.517</td>
<td>7.340</td>
<td>.00</td>
<td>53.88</td>
<td>.000</td>
<td>.262</td>
</tr>
<tr>
<td>2</td>
<td>SI</td>
<td>TA</td>
<td>.578</td>
<td>7.210</td>
<td>.00</td>
<td>74.419</td>
<td>.000</td>
<td>.330</td>
</tr>
<tr>
<td>3</td>
<td>CI</td>
<td>SI</td>
<td>.657</td>
<td>10.601</td>
<td>.00</td>
<td>112.375</td>
<td>.000</td>
<td>.428</td>
</tr>
<tr>
<td>4</td>
<td>SI</td>
<td>CI</td>
<td>.326</td>
<td>4.833</td>
<td>.00</td>
<td>76.357</td>
<td>.000</td>
<td>.502</td>
</tr>
</tbody>
</table>

The results of regression are presented in table 3.4. The beta value of customer involvement and technology advancement is .517. And the beta value of service innovation and technology advancement is .578. The beta value of service innovation and customer involvement is .657. The beta value of combine technology, customer involvement and service innovation is .326. Results indicate that customer involvement is positively associated with service innovation.

### 3.9 Hypothesis

**H1:** There is significantly positive relationship between customer involvement and technology advancement. Results of correlation, regression and significant of variables shows that there is positive relationship between technology advancement and customer involvement. That supports the first hypothesis. One can argue that with customer involvement bank can introduce more technology.

**H2:** There is positive relationship between service innovation and technology advancement. Results of correlation, regression and significant of variables shows that there is positive relationship between technology advancement and service innovation. That supports the second hypothesis. One can argue that with technology advancement more services are introduced in banking sector.

**H3:** There is positive relationship between customer involvement and service innovation. Correlation, regression and significant results of variables show that there is positive relationship between customer involvement and service innovation. That supports the third hypothesis. One can argue that with customer involvement bank can bring innovation in services.

**H4:** There is significant relationship between customer involvement, service innovation and technology advancement. Correlation, regression and significant results of variables shows that there is positive relationship between customer involvement, technology and service innovation. That supports the fourth hypothesis. One can argue that with customer involvement and technology bank can bring innovation in services.

#### 4. Discussions

The study focuses on the relationship between customer involvement and service innovation with the role of technology as a mediator. The obtained results show the direct relation exist between customer involvement and service innovation and technology makes strong and clarified that relationship. If that process of customer involvement with technology advancement is used in cities of Pakistan then it brings new changes in services that are provided by banks.

#### 5. Conclusion

The major finding of this research is that customer involvement source of positive impact that influences service innovation directly or indirectly with help of the technology advancement. Customer involvement has positive
consequences for new service innovation for the banking sector. With technology advancement new services can be offered for the customer to increase the markup of the organization. Using that approach one bank can get competitive advantage on others in the market.

6. Future direction
This research uses a quantitative method which consists of closed ended questions, making the answers of the respondents somewhat predetermined. Means respondents are still free to answer as they please but they can answer only alternatives available. On the other hand open ended questions provide different answers. And give different ways to involved in the service innovation. In this research focus only banking sector, the study of other industries provides different results.

References
Magnusson P.R., (2003), "Benefits of involving users in service innovation” European Journal of Innovation Management, vol. 6, no. 4, pp. 228-238.