

Information Technology Drives Innovation in Service - Customers' Perspective

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Among fast growing developing countries, India is distinctive for the role of the service sector. India is one of the leading service providers and service sector contributed 55.2% to the GDP in 2010. With large base of English speaking educated people, India has become a preferred destination for business services. Though, due to the intangible and dynamic structure of the service sector, it is really crucial to keep on innovating in the service sector so as to drive the growth of the service continuously and consistently. But this growth depends heavily on how easily customer is ready to accept the innovation in the service sector. This study's objective is to explore the easiness of the customer in accepting the innovation in service so as to identify the role of Information Technology (IT) in service innovation. It highlights the technological innovation activities, their organization, and their implementation that facilitates the service sector and drives the growth of service area. This study's findings illustrate that IT has facilitated the service sector to a great extent. Customers are adapting the innovative technology in services and hence IT affords a major opportunity for the innovation in the service sector. With the help of IT many advancements has been introduced in the service sector like online advertising and marketing, e-delivery, stream line of operations with the help of ERPs and many other. Also, IT sector plays a crucial role for the innovation in the service sector in upcoming future as well.

Keywords: Information Technology, Service Innovation, Service Sector Facilitation, Innovation Driven Marketing in Service sector, Customer easiness with technology and innovation.

Introduction

Service sector forms a growing proportion of the economy and is changing the work style of business, families, government and individuals across the globe. Throughout the past decade service industry has been through the various innovations whether it is marketing, operations or consultancy. As a service firm, the competitive edge lies in the ability of acquiring, adapting, absorbing and applying the innovative ideas so as to turn the customers' expectations into reality and to achieve the customer delight. Innovation is not all about adopting an idea which nobody has used earlier, but it is to use the gaps which are there in the customers' needs and the fulfillment of their needs. Designing the services in a unique manner that delights the customer so as to meet the unmet demands is also an innovation. The main purpose of innovation is to compete by changing the norms and leave the competitors irrelevant. But the innovation must be such that facilitate the customer and not leave them

baffled about the technology. A technology that is not easily adaptable by the customer can impact the firm adversely. A successful innovation is one that enhances the convenience of the customer and such innovation creates customer loyalty and strengthens the relationship between the customer and the service provider and hence leads to repeat purchase of services and recommendations to others as well. The intangible, process orientation and variability factor of service sector makes it inevitable to innovate continuously and consistently, focused on improving the customer experience. There is no doubt, innovation in service sector is complicated and is dependent on everyone in the organization. But Information Technology bears a greater role in the innovation of the service sector. The rapid growth of internet and mobile connectivity has forced marketers to pay more of attention towards the speed, scheduling and electronic access, and speeding up the process of services. Also, one of the impacts of growing service sector in India is time consciousness among the customers. Customer wants to get the work done in no time and hence it enhances the burden on Information and Communication Technology Sector to come up with the innovations so as to facilitate the service sector. Online marketing, introduction of ATMs, streamlining of operations,

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Enterprise Resource Planning, and many other IT enabled offerings are examples of innovation which have transformed the face of service sector in past decade.

Services cannot be protected as there is no way to get the services copyrighted. So, the only way that a service firm has to earn the competitive edge over the others is to introduce the innovation in its service process that earns the loyalty of the customer and differentiates it from the competitors. The major hurdle in service sector is to connect with the customer. Marketing and delivery of service within the apt time frame is a challenge in front of marketers which can be addressed with the help of technology development. Connectivity with customers through internet and mobile is a recent development in this area. Most of the people are connected with each other through internet and mobile and that enhances the role of such technology in service sector and innovation in the same. The growth rate of competitors and customer awareness are another factors which complicates the management of customer base in the service sector. In such scenario, Information Technology seems to be the savior for the firms as advancements in Information Technology are providing the various factors that can lead to the immense innovative ideas in services.

Review of Literature

Innovation is an important aspect in a service. Since services are easy to copy, innovations are easily replicable and there is few or no patent protection in case of services, it is imperative to innovate constantly and consistently so as to attain and maintain competitive edge in services. It involves everyone in the process whether its customers, employees, clients and suppliers. Everyone has some important role to play in the service innovation. (Xiao & Ruoya, 2007). In order to manage the service innovation efficiently and effectively, it is required to understand the role of each participant and administer it properly. Employees and customers play essential role in service innovation as their loyalty is a factor that facilitates the service innovation. (Richard et. al. 2007). Rapid enhancement of service trade globally and increasing liberalization makes it more vital to innovate but in spite of such trends, there is more focus on innovation of physical products. In order to compete on the basis of service innovation,

it is required to have much more intensive set of organizational practices instead of innovation of physical goods. The difference between physical goods and services enhances the culture of service innovation. Innovation in services is widely distributed, fluid and consistent, essential for hiring and promotion and facilitated by leadership. The physical goods and services bear a huge difference and these differences create new issues to manage in service innovation. Services have different characteristics like intangibility, perishability, in homogeneity and so on which raise issue in innovation. (Eddy, 2010). Strategies are to be implemented after undertaken a proper care of characteristics of services while implementing innovation in the services. The process should be formal, have customer involvement and promotes idea generation and quasi search quality.

Research Methodology

Purpose of the Study

The advancement in information technology has facilitated the development in diverse sectors. The involvement of information technology in various areas like marketing, finance, operations and so on has streamlined the functioning of the organizations. One of the major areas where information technology has tremendously changed the operations is service sector. But it has not been easy for the organizations to adopt the information technology in the service sector. Resistance from employees as well as customers, lack of knowledge and awareness among customers, security issues and such other factors made it difficult for the sector to adopt information technology as a part of it. But, gradually all such issues has been addressed to a great extent and now Information technology has become an indispensable part of service based organizations and constant innovation is the key for the organizations to keep up with the expectations of the customers. The purpose of the study is to learn about the role of innovation in the information technology in service sector and to analyze the perspective of the customer towards the adaptability of the innovation and technology inclusion in the service sector.

The paper answers the issues that how important it is for the service based companies to

adopt the innovative technologies, how customers view the technology and constant innovation and need for the same in the service sector and if advancement in technology drives the growth of the service sector.

Research Questions:

The **major objectives** of this report are:

- To find out the perception of the customer towards the adaptability of the innovation and technology involvement in the service sector.
- To analyze the importance of innovation in the service sector so as to drive the growth of service industry and role of Information Technology in the innovation in service sector.
- To study the customers' perspective towards technology, technological innovation activities, their organization, and their implementation that facilitates the service sector and drives the growth of service area.

Research Methodology

The research involved both primary and secondary data.

- Primary research is conducted to analyze the perspective of the customer towards the easy adaptability of the technology and innovation in service sector.
- Secondary research is to be done so as to understand the strategic implications of adoption of innovative technology in the service sector along with the challenges that industry faces in acceptance while introducing innovation in the organization.

Primary Research

Primary Research was conducted in the form of survey with the help of well defined questionnaires designed to understand the customer's perspective towards innovative technology in service sector and their easiness towards the adaptability of the same.

Sample Size

Sample Size is 100. The sample has been selected on the basis of Judgmental sampling since respondents have been selected on the following

criteria:

- ❖ Education Level
- ❖ Knowledge of IT
- ❖ Aware of availability of IT services
- ❖ Respondents lie within the age group of 18-40 yrs of age

The research has been conducted in Delhi/NCR region.

Standard questionnaire was used for the collection of primary data. Data analysis was done with the help of SPSS 18.0 tool kit. T-test and pie charts were primarily used

Secondary Research

Secondary data were collected from

- Research papers
- Journals and reports published by the various organizations.

Limitations

- The research has been conducted in Delhi/NCR region only so the result cannot be generalized for overall India. Moreover in India, a major chunk of population resides in small cities and rural areas where e-services are not much in use.
- The sample size is also small because of time constraint and convenience.

Hypothesis

The major Hypothesis that has been the basis of the study:

H_0 = various factors affecting services have been unaffected by the involvement of IT

H_1 = various factors affecting services have been improved by the involvement of IT

H_0 = Customers are indifferent towards acceptance of innovation in the service sector.

H_1 = Customers are willing to accept innovation in the service sector.

Data Analysis and Interpretation

One Sample T-Test: T-Test is used to measure the difference between the mean of two groups. In one sample t-test, the mean is compared to a known number or mean.

	Test Value = 3				95% Confidence Interval of the Difference	
	T	Df	Sig. (2-tailed)	Mean Difference	Lower	upper
Quality	-14.119	99	.000	-1.05000	-1.1976	-.9024
Convenience	-13.979	99	.000	-1.09000	-1.2447	-.9353
Speed	-19.222	99	.000	-1.29000	-1.4232	-1.1568
Ease of Access	-6.326	99	.000	-.85000	-1.1166	-.5834
Ease of Comparison among Suppliers	-8.900	99	.000	-.83000	-1.0151	-.6449
More Information	-14.162	99	.000	-1.07000	-1.2199	-.9201

The result of T-test shows the positive outcome. The test signifies that there are no evidences to support null hypothesis. The result indicates that all the factors that have been studied have been greatly affected by the involvement of Information Technology. As per the analysis, customer believes that IT has significantly improved the service sector. The test shows that IT has a significant impact on the factors that affect the innovation in the service sector.

Independent T - Test: Independent T-Test is used to measure the difference between mean of two independent samples.

Graph Statistics:

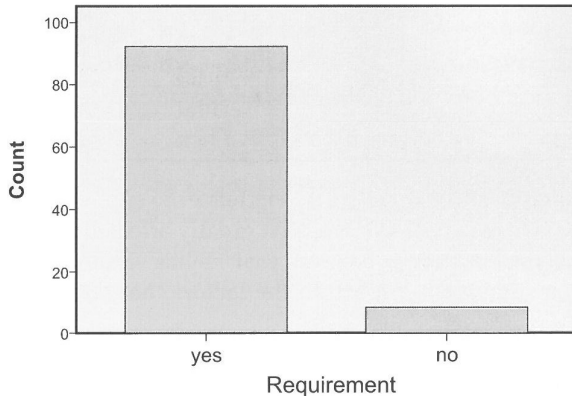
	Comfort	N	Mean	Std. Deviation	Std. Error Mean
Quality	Yes	79	1.9114	.71951	.08095
	No	21	2.0952	.83095	.18133
Convenience	Yes	79	1.7089	.55820	.06280
	No	21	2.6667	1.01653	.22183
Ease of Access	Yes	79	1.9494	1.24960	.14059
	No	21	2.9048	1.44585	.31551
Speed	Yes	79	1.6582	.61781	.06951
	No	21	1.9048	.83095	.18133
Ease of Comparison among suppliers	Yes	79	1.9747	.84694	.09529
	No	21	2.9048	.88909	.19401
More Information	Yes	79	1.8481	.78591	.08842
	No	21	2.2381	.53896	.11761

	Satisfaction	N	Mean	Std. Deviation	Std. Error Mean
Quality	Yes	85	1.9176	.72722	.07888
	No	15	2.1333	.83381	.21529
Convenience	Yes	85	1.7176	.58983	.06398
	No	15	3.0000	.84515	.21822
Ease of Access	Yes	85	2.0353	1.29511	.14047
	No	15	2.8000	1.47358	.38048
Speed	Yes	85	1.6471	.63068	.06841
	No	15	2.0667	.79881	.20625
Ease of Comparison among suppliers	Yes	85	2.0353	.87895	.09534
	No	15	2.9333	.88372	.22817
More Information	Yes	85	1.8706	.76824	.08333
	No	15	2.2667	.59362	.15327

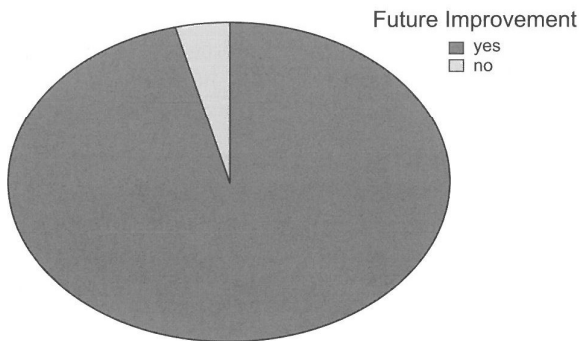
The independent T-test also signifies that customers are willing to accept the evolution in the service sector. The test shows that customers acknowledge to the fact that Information Technology has improved the service sector and find using technology convenient to avail any service. All the factors represents that IT has enhanced the comfort level for the customers.

Not only comfort level but satisfaction is also there. Most of the respondents are satisfied with the e-services along with the factors of services. It shows that customers are accepting the technological innovations not only for the sake of convenience or comfort level but they also find it satisfactory to avail e-services.

Graphs



The bar chart represents the opinion of the respondents on the requirement of more of IT in the service sector. The respondents seem quite positive on this aspect that again reflects the easy acceptance of technology by customer. Around 92% of the respondents are in favour to have more of technological development in the service sector.



The chart shows the agreement of the respondents on the fact that Information Technology bears a greater responsibility for the betterment of the service customer. 96% respondents believe that IT is a factor that has improved the services and also it has an immense scope in future as well.

Conclusion

As per the analysis of the response of the customer, it is to be concluded that people are ready to adopt technological innovation that brings convenience and comfort in service usage. People believe that IT is the requirement of the time and is

the key of sustenance in the industry. The easy acceptance and technological advancements are the factors that drive the innovation in the service sector. Since customer wants services at its doorstep, constant and continuous technological innovations are the key to gain the competitive advantage in the service sector. With the help of IT many advancements has been introduced in the service sector like online advertising and marketing, e-delivery, stream line of operations with the help of ERPs and many other. IT sector plays a crucial role for the innovation in the service sector in upcoming future as well. A service firm that introduces e-services that are easy to operate by the customer will operate at competitive edge and leave its competitor irrelevant

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