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IMPACT OF INFORMATION TECHNOLOGY ON INSURANCE SECTOR WITH SPECIAL REFERENCE TO THE LIFE INSURANCE CORPORATION OF INDIA

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ABSTRACT

Emergence of information technology has changed customers' socio-economic culture vastly and human interactions are now significantly being replaced by the interactions of human-technology where like any other sector, in insurance sector also the information technology is playing the most important role in providing quality services to the customers in order to satisfy them. Considering various needs and requirements of the customers as well as their awareness about the information technology and various information technology enabled services, the insurance companies are dedicatedly trying to gain the maximum utilization of the information technology in their business operation in most efficient and effective way with the help of their strong technology savvy manpower in the competitive market. In the present perspective, the researcher in this paper wanted to study the impact of the modern technology namely information technology on the insurance sector with special reference to the Life Insurance Corporation of India (LICI) in Burdwan district, West Bengal. In this study, accepted 221 usable responses were considered as the sample size and statistical package SPSS 16 was used to perform the analyses.

KEYWORDS

Information Technology, Insurance.

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INTRODUCTION

In 21st century information technology (IT) has become the backbone of every industry, especially for the service industries, all over the world. Information technology is not only enabling the customers to get detailed information about the various products and services offered by the organizations, compare the prices of the products and perform their transactional operations in a very fast and secure way but also helping the organizations to carry out their several business operations electronically successfully. After liberalization, while establishing its role in the economic development process of the country, Indian insurance market has undergone a dramatic change and also influenced the financial sector as a whole. There are now many private and foreign life insurance companies performing their operations in Indian insurance market and offering different type of products and services to the customers. In the modern fast life, life insurance customers have not so much of time to spare with the insurer neither to understand the different life insurance policies or schemes nor to perform their different transactional operations rather they are becoming more expecting about the information technology and information technology enabled services (ITES) in their life. Observing the alarming situation, the insurance companies are trying to change their focus from product orientation to customer orientation and involving in the IT investment in their business in order to get competitive advantage over their competitors through the use of information technology and information technology enabled services. The largest as well as one and only public sector life insurance company of India namely Life Insurance Corporation of India (LICI) is no exception to this. From the very early age of the business, Life Insurance Corporation of India has not only implemented information technology in their operations and providing a variety of information technology enabled services to their customers but also adopted various strategies to modernize their present IT infrastructure in order to facilitate the customers in different ways in their daily life. The technology savvy employees of the Life Insurance Corporation of India are now fervently using this new and convenient technology in their works in most efficient and effective way especially at the time of delivery of services to the customers. In the present context, to observe the significant role plays by the

information technology on the insurance sector the current study has been conducted on the life insurance customers of all the 17 branches of the Life Insurance Corporation of India located in the district of Burdwan, West Bengal.

REVIEW OF LITERATURE

Information Technology (IT) is described as any technology that helps to produce, manipulate process, store, communicate, and/or disseminate information (William and Sawyar, 2005). Pitt et al. (1999) expressed that information technology may be considered as a platform that rides on the Internet, a hypermedia information storage system which connects computer-based resources around the world. "A service is a process consisting of a series of more or less intangible activities that normally, but not necessarily always, takes place in interactions between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems" (Gronroos, 2000). Kotler et al. (2002) defined the quality as the totality of features and characteristics of a product or services that bear on its ability to satisfy stated or implied needs. Service quality may be defined as "a global judgement or attitude relating to a particular service; the customer's overall impression of the relative inferiority or superiority of the organization and its services. Service quality is a cognitive judgement" (Fogli, 2006). Czepiel (1990) defined the service quality as customer perception of how well a service meets or exceeds their expectations. In simple way service quality can be described as "the degree and direction of discrepancy between customers' service perceptions and expectations" (Parasuraman and Zeithaml, 2006). Service quality dimensions are likely to be industry specific (Asubonteng et al., 1996). Babakus and Boller (1992) stated that dimensionality of service quality may depend on the type of service under study where the importance of different dimensions of the service quality depend on the characteristics of the industry (Brady and Cronin, 2001). As the identification of the determinants of service quality is necessary to be able to specify, measure, control and improve service quality perceived by the customer so it should be a central concern for service management, academics and practitioners (Johnston, 1995). The mostly used service quality measurement tool SERVQUAL (Parasuraman et al., 1988) consists of five dimensions namely tangibles,

reliability, responsiveness, assurance and empathy and according to Oliver (1993) customer consider the expectations of performance on these service dimensions. Based on the Parasuraman et al. (1985)'s GAP model and the ten dimensions of the service quality, Zeithaml et al. (1990) developed Customer Assessment of Service Quality through which customer can access the quality of service. The six criteria of good perceived service quality identified by Gronroos (1988) are professionalism and skills, attitudes and behaviors, accessibility and flexibility, reliability and trustworthiness, recovery, and reputation and credibility. Among these professionalism and skills can be referred as technical or outcome-related dimension, attitudes and behaviors, accessibility and flexibility, reliability and trustworthiness and the recovery can be referred as functional or process-related dimensions and reputation and credulity can be referred as image-related dimension. Reeves and Bednar (1994) in their study asserted that excellence, value, conformance to specifications and meeting and/or exceeding expectations are the four dimensions of service quality. According to Brady and Cronin (2001)'s opinion in service marketing literature so far, the most debated and controversial topic is the conceptualization and measurement of the perceptions of service quality. Combining Nordic model (Gronroos, 1984), SERVQUAL (Parasuraman et al., 1988), three component model (Rust and Oliver, 1994) and the multilevel model (Dabholkar et al., 1996) of service quality, Brady and Cronin (2001) developed multi-hierarchical model where service quality includes dimensions and sub-dimensions. To investigate the SERVQUAL structure across the five service industries, Mels et al. (1997) performed the factor analysis and found two dimensions of service quality namely intrinsic and extrinsic which are linked to interactive quality (Lehtinen and Lehtinen, 1985) as well as interaction quality (Gronroos, 1990) and to the technical quality (Gronroos, 1990) respectively. "Therefore, while SERVQUAL can be used in its present form to access and compare quality across a wide variety of firms, appropriate adaptation of the instrument may be desirable when only a single service is investigated" (Parasuraman et al., 1988) and the determinants of service quality should be measured at the item level (Brady and Cronin, 2001).

Information technology is one of the important factors influencing public awareness about the life insurance companies of India **(**Choudhuri and Dasgupta, 2013a**)**. Technology is now playing an indispensable role in customers' mind to make them aware about the different life insurance products (Choudhuri, 2014a) where internet

has appeared as one of the important influencers to the customers in selection of life insurance product (Choudhuri, 2013a). In life insurance industry high quality service (defined as exceeding "customers' expectations") is rare but increasingly demanded by the customers (Sherden, 1987). Though the study of Choudhuri (2013b) pointed out that in the last visit to the life insurance branch almost all the customers were happy about the services offered by the life insurer but in the insurance industry, the widespread customer dissatisfaction stemming from poor service design and delivery is confirmed by the studies of Wells and Stafford (1995); Cooper and Frank's (2001) the Chartered Property Casualty Underwriters (CPCU) longitudinal studies and Friedman's (2001a, 2001b) the Quality Insurance Congress (QIC) as well as the Risk and Insurance Management Society (RIMS). In this respect, the possibility of the augmentation of life insurance services with the help of information technology enabled convenient services was clearly indicated in the study of Choudhuri (2014b). Choudhuri's (2014c) Information Technology Enabled Convenient Service Quality Model (ITECSQM) established that integration of information technology with the life insurance services has a significant effect on the perceived service quality and customers satisfaction link. In the modern age of the society just like a catalyst the information technology has a strong influence in the improvement of the quality of services provided by the life insurers (Choudhuri, 2013c) and convenient transaction of the life insurance customers is very much depends on the modern technology namely information technology (Choudhuri, 2014d). The study of Choudhuri (2012) revealed that information technology enabled convenient services (ITECS) has emerged as the one of the important dimensions of the structure of service quality in life insurance sector and to the life insurance customers, ITECS is the third most important service quality dimension (Choudhuri and Dasgupta, 2013b). Observing the role of information technology in fulfillment of the various needs and requirements of the customers in life insurance (Choudhuri, 2014e) as well as the dependency of the life insurance customer satisfaction on the information technology (Choudhuri, 2013d) and on the perceived service quality (Choudhuri, 2014f), in life insurance industry, the organizational performance in the office operation of systems technology leaders was linked to the level of information technology investment intensity (Harris and Katz, 1991). Choudhuri (2013e) also affirmed that introduction of information technology by the Life Insurance Corporation of India is strongly related with the entry of private players in the Indian life

insurance market. The study of Choudhuri (2014g) established the significant impact of the information technology on the performance of the employees which also has a strong positive impact on the customer satisfaction in life insurance sector (Choudhuri, 2014h). Charles (1993) revealed that service industries have been identified as the biggest buyers of new information technology. That's why Jen-Her and Yu-Min (2006); Leslie and Richard (2006) asserted that managers of the insurance companies are able to process work quickly as well as response to their customers has been faster and prompt using the latest information technology system.

METHODOLOGY

For the purpose of the study, researcher first of all formulated the following null and alternative hypotheses:

$H1_0$: Introduction of information technology by LICI is not related with the entry of private players in the market.

$H1_a$: Introduction of information technology by LICI is very much related with the entry of private players in the market.

$H2_0$: Performance of the employees in life insurance is independent of information technology.

$H2_a$: Performance of the employees in life insurance is dependent of information technology.

$H3_0$: Perceived service quality in life insurance is independent of the information technology.

$H3_a$: Perceived service quality in life insurance is dependent of the information technology.

$H4_0$: Convenience in transaction by the customer is independent of the information technology.

$H4_a$: Convenience in transaction by the customer is dependent of the information technology.

$H5_0$: Fulfillment of customers' wishes is independent of the information technology.

$H5_a$: Fulfillment of customers' wishes is dependent of the information technology.

$H6_0$: Customer satisfaction in life insurance is independent of the information technology.

$H6_a$: Customer satisfaction in life insurance is dependent of the information technology.

For the present study PZB's SERVQUAL model was adapted as the backbone of the survey instrument. To study the impact of information technology on the life insurance sector with special reference to the Life Insurance Corporation of India (LICI), at the outset the investigation of the dimensional structure of the service quality for the Life Insurance Corporation of India was carried out where some more items related to information technology

were included along with the existing 22 items of SERVQUAL instrument spread over tangibility, reliability, responsiveness, assurance and empathy dimensions. In conjunction with the other items, the importance of having information technology in LICI, improvement of quality of services offered by the LICI after the entry of the private players, performance of the LICI employees, convenient transaction of the LICI customers with their insurer, fulfillment of the various needs and requirements of the LICI customers and the satisfaction of the LICI customers were also included in the initial questionnaire. After proper formation of survey instrument, pilot study was conducted randomly selecting 30 customers for this study where explaining objectives and purpose of the study, researcher tried to get valuable feedback from these customers. Based on this pilot study, the preliminary analysis established the internal consistency of the items within questionnaire especially the items within each dimension and identified three items under Information Technology Enabled Services. The pilot study gave the confirmation of validity and reliability of final survey instrument. Thus, the modified SERVQUAL scale was developed as the survey instrument for the customers. This modified SERVQUAL instrument consists of six dimensions named Tangibility, Reliability, Responsibility, Assurance, Empathy and Information Technology Enabled Services where Tangibility contains 5 items, Reliability contains 5 items, Responsibility contains 4 items, Assurance contains 5 items, Empathy contains 3 items and Information Technology Enabled Services contains 3 items. The questionnaire used for the study included both open-ended and close-ended and consisted seven point Likert scale ranging from 1-strongly disagree to 7-strongly agree. Using random sampling technique a total 350 questionnaires were distributed among the customers of 17 LICI branches in Burdwan district, generating 221 usable responses which were considered as the sample size for this study. According to Hair et al. (1992) for multivariate analysis the sample size should be at least 5 times the number of parameters in the model. As the proposed model of this study consists of 25 parameters, the minimum response necessary would be (25*5) = 125. Thus, the sample size of this research, i.e., 221 in case of customers is far in excess of the Hair et al.'s (1992) recommendation as well. SPSS 16 software was used for analysis.

RESULTS AND DISCUSSIONS

Based on the demographic data of the LICI customers which was collected through cross-sectional survey for the purpose of the study, the central tendency of the various demographic profiles of the customers was measured. The summarized demographic profile of the customers of the study is now given in Table 1:

Table 1: Demographic profile of the customers

Demographic Variable	Demographic Characteristics	Frequency	Mean	Median	Mode	Std. Deviation
Gender	Male	192 (86.9)	1.1312	1.0000	1.00	0.33841
	Female	29 (13.1)				
Age	≤ 30 years	51 (23.1)	2.6154	2.0000	2.00	1.26905
	31 - 40 years	66 (29.9)				
	41 - 50 years	38 (17.2)				
	51 - 60 years	49 (22.2)				
	≥ 60 years	17 (7.7)				
Income	≤ Rs.14999.00	30 (13.6)	2.3529	2.0000	2.00	0.82150
	Rs.15000.00 -Rs.24999.00	102 (46.2)				
	Rs.25000.00 -Rs.44999.00	70 (31.7)				
	≥ Rs.45000.00	19 (8.6)				
Occupation	Salaried	174 (78.7)	1.4661	1.0000	1.00	1.00226
	Business	15 (6.8)				
	Professional	11 (5.0)				
	Retired	18 (8.1)				
	Housewife	3 (1.4)				
Educational Qualifications	High school	14 (6.3)	3.1991	4.0000	4.00	1.08970
	Graduate	56 (25.3)				
	Post-graduate	38 (17.2)				
	Professional	98 (44.3)				
	Any other	15 (6.8)				
Locality of Living	Center of the town	144 (65.2)	1.5611	1.0000	1.00	0.82138
	Outskirts of the town	30 (13.6)				
	Rural areas adjoining town	47 (21.3)				
Modern Aids	Mobile Phone	64 (29.0)	1.4208	2.0000	2.00	0.90921
	Combination of mobile & internet	157 (71.0)				

** Percentage (%) in parenthesis*

From the available data the Rotated Component Matrix obtained the factor loading or cross-loading of the customers' items along with name of the different dimensions and the commonalities and differences of factor

loading or cross loadings of the several items across different dimensions. The detail analysis is presented in Table 2 and 3.

Table 2: Rotated Component Matrix on Customers' Expectation Variables

	Component						Dimension Naming
	1	2	3	4	5	6	
Modern Equipments						0.628	**Tangibility**
Professional Appearance of Employees						0.888	
Accessible and visual display of materials						0.857	
Physical comfort level of customers						0.893	
Convenient business hours						0.923	
Fulfill promise in a timely manner	0.748						**Reliability**
Error-free records	0.684						
Involvement and interest to solve a customer problem	0.739						
Provide exact information	0.583						
Perform the service right the first time	0.625						
Prompt services to the customers			0.590				**Responsibility**
Willingness to help customers			0.705				
Not be ever too busy to respond			0.832				
Treat the public situation with care & seriousness			0.720				
Instill confidence in the customers		0.623					**Assurance**
Safety of transactions		0.641					
Courteous with the customers		0.754					
Knowledge of employees		0.663					
Confidentiality of Records & Information of Customers		0.724					
Individual attention to the customers					0.605		**Empathy**
Understand customers' specific needs					0.657		
Customers' best interest at heart					0.616		
Electronic network				0.773			**Information Technology Enabled Convenient Services**
Networking of branches				0.648			
Additional Services				0.822			

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Table 3: Commonalities and differences of factor loadings/cross loadings on Customers' Expectation Variables

	Component					
	1	2	3	4	5	6
	REL	ASU	RES	ITECS	EMP	TAN
Initial Eigenvalues	4.794	3.589	3.232	3.083	2.875	2.431
% of Variance	21.947	15.684	12.153	9.792	5.869	4.497
Cumulative %	21.947	37.631	49.784	59.576	65.445	69.942
Cronbach's α	0.873	0.768	0.857	0.732	0.717	0.892
KMO measure of sampling adequacy	0.888					

 # Legends used: REL- Reliability, **ASU-** Assurance, **RES-** Responsibility, **ITECS-** Information Technology Enabled Convenient Services, **EMP-** Empathy and **TAN-** Tangibility

According to Kaiser and Cerny (1979) the high shared variance and relatively low uniqueness in variance are indicated by the KMO measure for sampling adequacy (0.888). The Barlett's Sphericity Test where Chi-square value is 3735.553 ($p<0.0001$) established that distribution is ellipsoid and amenable to data reduction.

The Rotated Component Matrix table, Table 2, shows that the values of all 25 items of the modified SERVQUAL instrument are greater than 0.5 which strongly support the recommendation of Nunnally and Bernstein (1994) about the factor loading and cross-loading. So, Table 2 established that all items of the questionnaire are properly loaded under six components. It is clear to understand that under the first component 5 items are properly loaded, 5 items are loaded under the second component, 4 items are loaded under the third component, 3 items are loaded under the fourth component, 3 items are loaded under the fifth component and 5 items are loaded under the sixth component and the names given for the dimensions of above mentioned group of items loaded under the components of 1, 2, 3, 4, 5 and 6 are respectively Reliability, Assurance, Responsibility, Information Technology Enabled Convenient Services, Empathy and Tangibility.

Table 3, shows that Initial Eigen values of Reliability, Assurance, Responsibility, Information Technology Enabled Convenient Services, Empathy and Tangibility are 4.794, 3.589, 3.232, 3.083, 2.875 and 2.431 respectively, i.e., all Initial Eigen values are greater than 1 which proves the significance of the factors. Whilst the corresponding

Cronbanch's α values are found to be 0.873, 0.768, 0.857, 0.732, 0.717 and 0.892 respectively establishing the reliability of the survey instrument of the study.

Parasuraman et al. (1988) suggested SERVQUAL model which consists of five dimensions namely Tangibles, Reliability, Responsiveness, Assurance and Empathy. In the present study researcher included few additional items related to the information technology enabled services in the existing SERVQUAL instrument. The above discussions establish the modification of SERVQUAL instrument for life insurance services that has six dimensions namely Reliability, Assurance, Responsibility, Information Technology Enabled Convenient Services, Empathy and Tangibility, i.e., existing among five dimensions the new dimension Information Technology Enabled Convenient Services is included in the PZB's SERVQUAL instrument.

To test the first hypothesis, researcher has performed the Bivariate Correlation analysis and measured the Pearson's Correlation Coefficient. Here, the researcher examined the association between introduction of advance technology, i.e., information technology in LICI and entry of private players in insurance sector. The result of the Bivariate Correlation analysis is given below:

Table 4: Bivariate Correlation result of Information Technology and Private Players

		INFORMATION TECHNOLOGY	PRIVATE PLAYERS
INFORMATION TECHNOLOGY	Pearson Correlation	1	.141*
	Sig. (2-tailed)	.	.036
	N	221	221
PRIVATE PLAYERS	Pearson Correlation	.141*	1
	Sig. (2-tailed)	.036	.
	N	221	221

* Correlation is significant at the 0.05 level (2-tailed).

From the above table it is easy to understand that Pearson Correlation Coefficient was statistically significant [* Correlation is significant at the 0.05 level (2-tailed)]. So, there exist strong positive relationship in between IT implementation in LIC and entry of Private Players / Insurance companies [0.141*, Sig. 0.036 (significant at the 0.05 level (2-tailed))] in Indian insurance market. That's why the first null hypothesis has rejected and alternative

hypothesis "*Introduction of information technology by LICI is very much related with the entry of private players in the market*" has accepted at here.

To understand the strength of the relationship of performance of the employees and information technology, the simple regression analysis was performed in order to predict the dependent variable from the independent variable (predictor) where performance of the employees was considered as the dependent variable and information technology was considered as the independent variable for this study. The results of first simple regression analysis are given below in the following tables:

Table 5: Result of Regression Analysis 1

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	INFORMATION TECHNOLOGY[a]	.	Enter

a. All requested variables entered.
b. Dependent Variable: PERFORMANCE

Table 6: Model Summary[b] (IT vs. PERF)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.437[a]	.211	.203	.65137

a. Predictors: (Constant), INFORMATION TECHNOLOGY
b. Dependent Variable: PERFORMANCE

Table 7: Result of ANOVA (IT vs. PERF)

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.478	1	3.478	7.136	.003[a]
	Residual	206.517	219	.943		
	Total	209.995	220			

a. Predictors: (Constant), INFORMATION TECHNOLOGY
b. Dependent Variable: PERFORMANCE

Table 8: Regression Coefficients (IT vs. PERF)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.261	.413		12.284	.000
	INFORMATION TECHNOLOGY	.735	.126	.247	5.316	.003

a. Dependent Variable: PERFORMANCE

 # Legends used: IT- Information Technology and **PERF-** Performance

The result of simple regression analysis indicates that dependent variable performance of the employees has a strong relationship with the independent variable information technology. In ANOVA result of Table 7, the value of F = 7.136, p≤0.001 established the significance of the relationship between performance of the employees and the information technology. The result of regression coefficients in Table 8 shows that standardized coefficient β and corresponding t-value of the information technology are β = 0.247, t = 5.316, p<0.001 which also proved that there exists positive and strong relationship between dependent variable performance of the employees and the independent variable information technology in the current study. So, in this study the second null hypothesis is rejected and alternative hypothesis "*Performance of the employees in life insurance is dependent of information technology*" is accepted.

To realize the strength of the relationship of perceived service quality and information technology, simple regression analysis was performed to predict the dependent variable from the independent variable (predictor) where perceived service quality (which is the mean score of all the customers' perception of service quality) was considered as a dependent variable and the information technology was considered as an independent variable for the study. The results of second simple regression analysis are given below in the following tables:

Table 9: Result of Regression Analysis 2

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	INFORMATION TECHNOLOGY[a]	.	Enter

a. All requested variables entered.
b. Dependent Variable: PERCEIVED SERVICE QUALITY

Table 10: Model Summary[b] (IT vs. PSQ)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.542[a]	.293	.281	.72351

a. Predictors: (Constant), INFORMATION TECHNOLOGY
b. Dependent Variable: PERCEIVED SERVICE QUALITY

Table 11: Result of ANOVA (IT vs. PSQ)

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.648	1	.648	10.238	.005[a]
	Residual	59.152	219	.270		
	Total	59.800	220			

a. Predictors: (Constant), INFORMATION TECHNOLOGY
b. Dependent Variable: PERCEIVED SERVICE QUALITY

Table 12: Regression Coefficients (IT vs. PSQ)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.623	.168		27.552	.000
	INFORMATION TECHNOLOGY	.128	.115	.304	9.113	.005

a. Dependent Variable: PERCEIVED SERVICE QUALITY

 # Legends used: IT- Information Technology and **PSQ-** Perceived Service Quality

The result of simple regression analysis indicates that dependent variable perceived service quality has a strong relationship with the independent variable information technology, i.e., prediction of dependent variable has successfully been done by the independent variable. In ANOVA result of Table 11, the value of F = 10.238, $p \leq 0.001$ established the significance of the relationship between perceived service quality and information technology. The result of regression coefficients in Table 12 shows that the standardized coefficient β and corresponding t-values of information technology are $\beta = 0.304$, $t = 9.113$, $p < 0.001$ which also proved that there exists positive and strong relationship between dependent variable perceived service quality and the independent

variable information technology in the present study. So, the third null hypothesis is rejected here and alternative hypothesis "*Perceived service quality in life insurance is dependent of the information technology*" is accepted.

To understand the strength of the relationship of convenient transaction of the customers and information technology, the simple regression analysis was performed in order to predict the dependent variable from the independent variable (predictor) where convenient transaction was considered as the dependent variable and information technology was considered as the independent variable for this study. The results of third simple regression analysis are given below in the following tables:

Table 13: Result of Regression Analysis 3

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	INFORMATION TECHNOLOGY[a]	.	Enter

a. All requested variables entered.
b. Dependent Variable: CONVENIENT TRANSACTION

Table 14: Model Summary[b] (IT vs. CT)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.166[a]	.028	.023	.98320

a. Predictors: (Constant), INFORMATION TECHNOLOGY
b. Dependent Variable: CONVENIENT TRANSACTION

Table 15: Result of ANOVA (IT vs. CT)

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.989	1	5.989	6.196	.014[a]
	Residual	211.703	219	.967		
	Total	217.692	220			

a. Predictors: (Constant), INFORMATION TECHNOLOGY
b. Dependent Variable: CONVENIENT TRANSACTION

Table 16: Regression Coefficients (IT vs. CT)

Coefficients[a]

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	3.306	.168		19.734	.000
	INFORMATION TECHNOLOGY	.284	.114	.166	2.489	.014

a. Dependent Variable: CONVENIENT TRANSACTION

 # Legends used: IT- Information Technology and **CT-** Convenient Transaction

The result of simple regression analysis shows that dependent variable convenient transaction has a strong relationship with the independent variable information technology. In ANOVA result of Table 15, the value of F = 6.196, p≤0.001 established the significance of the relationship between convenience of the customer in transaction and the information technology. The result of regression coefficients in Table 16 indicates that the standardized coefficient β and corresponding t-value of information technology are β = 0.166, t = 2.489, p<0.001 which also proved that there exists positive and strong relationship between dependent variable convenience of the customer in transaction and the independent variable information technology in the present study. So, here the fourth null hypothesis is rejected and alternative hypothesis "*Convenience in transaction by the customer is dependent of the information technology*" is accepted.

To realize the strength of the relationship of fulfillment of customers' wishes and information technology, the simple regression analysis was performed in order to predict the dependent variable from the independent variable (predictor) where fulfillment of customers' wishes was considered as the dependent variable and information technology was considered as the independent variable for this study. The results of fourth simple regression analysis are given below in the following tables:

Table 17: Result of Regression Analysis 4

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	INFORMATION TECHNOLOGY[a]	.	Enter

a. All requested variables entered.
b. Dependent Variable: WISHES

Table 18: Model Summary[b] (IT vs. WISHES)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.521[a]	.283	.274	.81024

a. Predictors: (Constant), INFORMATION TECHNOLOGY

b. Dependent Variable: WISHES

Table 19: Result of ANOVA (IT vs. WISHES)

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.758	1	23.758	36.217	.007[a]
	Residual	280.101	219	1.279		
	Total	303.859	220			

a. Predictors: (Constant), INFORMATION TECHNOLOGY

b. Dependent Variable: WISHES

Table 20: Regression Coefficients (IT vs. WISHES)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.617	.183		9.183	.000
	INFORMATION TECHNOLOGY	.149	.074	.465	3.721	.004

a. Dependent Variable: WISHES

 # Legends used: IT- Information Technology and **WISHES-** Wishes

The result of simple regression analysis indicates that dependent variable fulfillment of customers' wishes has a strong relationship with the independent variable information technology. In ANOVA result of Table 19, the value of F = 36.217, $p \leq 0.001$ established the significance of the relationship between fulfillment of customers' various wishes and the information technology. The result of regression coefficients in Table 20 shows that standardized coefficient β and corresponding t-value of the information technology are $\beta = 0.465$, $t = 3.721$, $p < 0.001$ which also proved that there exists positive and strong relationship between dependent variable fulfillment of customers' various wishes and the independent variable information technology in the current study. So, in this study the fifth null hypothesis is rejected and alternative hypothesis "*Fulfillment of customers' wishes is dependent of the information technology*" is accepted.

To observe the strength of the relationship between customer satisfaction and information technology, the following fifth simple regression analysis was performed to predict the dependent variable from the independent

variable (predictor) where customer satisfaction was considered as a dependent variable and information technology was considered as the independent variable:

Table 21: Result of Regression Analysis 5

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	INFORMATION TECHNOLOGY[a]	.	Enter

a. All requested variables entered.
b. Dependent Variable: CUSTOMER SATISFACTION

Table 22: Model Summary[b] (IT vs. CS)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.261[a]	.068	.060	1.01524

a. Predictors: (Constant), INFORMATION TECHNOLOGY
b. Dependent Variable: CUSTOMER SATISFACTION

Table 23: Result of ANOVA (IT vs. CS)

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.502	1	8.502	8.249	.005[a]
	Residual	116.469	219	.532		
	Total	124.972	220			

a. Predictors: (Constant), INFORMATION TECHNOLOGY
b. Dependent Variable: CUSTOMER SATISFACTION

Table 24: Regression Coefficients (IT vs. CS)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.803	.235		24.649	.000
	INFORMATION TECHNOLOGY	.462	.161	.261	2.872	.005

a. Dependent Variable: CUSTOMER SATISFACTION

 # Legends used: IT- Information Technology and **CS-** Customer Satisfaction

The simple regression analysis results established that the dependent variable customer satisfaction has a strong relationship with the independent variable information technology. In ANOVA result of Table 23, the value of F = 8.249, p≤0.001 established the significance of the relationship between the customer satisfaction and information

technology in life insurance. In Table 24, the regression coefficients' result shows that the standardized coefficient β and corresponding t-value of information technology are β = 0.261, t = 2.872, p<0.001 which also established that in the present study, a positive and strong relationship exists in between dependent variable customer satisfaction and independent variable information technology. So, the sixth null hypothesis is rejected and the alternative hypothesis "*Customer satisfaction in life insurance is dependent of the information technology*" is accepted.

Based on the above discussion the following diagram has been developed to indicate the diversified impact of the information technology on the insurance sector in the present perspective:

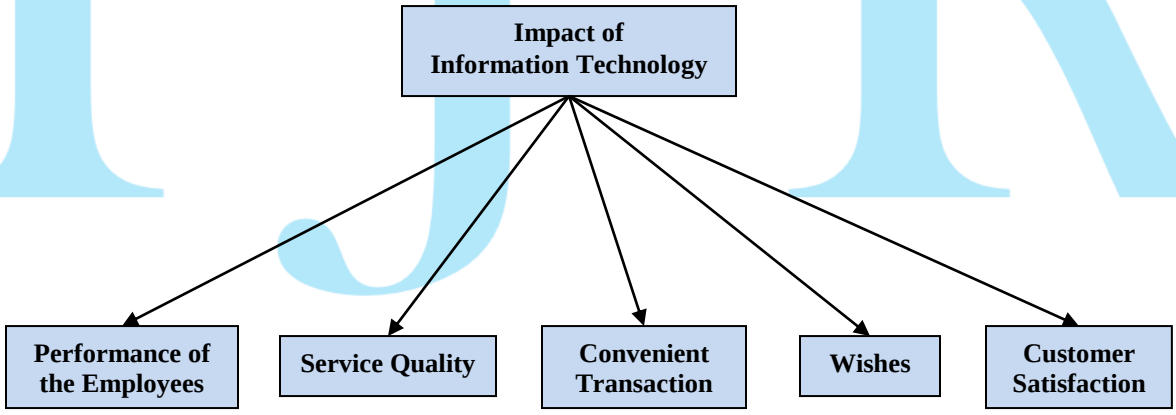

Figure 1: Impact of information technology on insurance sector

CONCLUSIONS

In the study of the impact of information technology on the insurance sector with special reference to the Life Insurance Corporation of India (LICI), the researcher initially established the six dimensional structure of the service quality for the life insurance services where important dimensions are Reliability, Assurance, Responsibility, Information Technology Enabled Convenient Services, Empathy and Tangibility. It clearly indicates that Information Technology Enabled Convenient Services (ITECS) plays a significant role in providing

quality of services to the life insurance customers. Hypotheses testing revealed that introduction of information technology in LICI is strongly related with the improvement of quality of services offered by the LICI after the entry of the private players in the insurance market and the dependency of performance of the employees on the information technology, dependency of perceived service quality on the information technology, dependency of convenient transaction of the customers on the information technology, dependency of fulfillment of the various needs of the customers on the information technology and the dependency of customer satisfaction on the information technology in the present context of the study. Thus, the study affirmed that information technology has a strong significant impact on the performance of the employees of the life insurance organization, quality of services offered by the organization, convenient transaction of the customers, fulfillment of the various needs of the customers and obviously on the satisfaction of the life insurance customers. So, it is expected that considering the wide impact of information technology on the insurance sector, the insurance companies should continuously involve in IT investment in their business in order to achieve maximum growth in the present competitive insurance market.

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