

DIGITAL SERVICE DELIVERY AND ITS IMPACTS- A SPECIFIC STUDY IN CONNECTED TECHNOLOGY IN INDIAN AUTOMOBILE INDUSTRY

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ABSTRACT

The data based on the responses of 126 consumers of premium automobile companies i.e. Tata motors, BMW, Mercedes-Benz, and Ford shows that high-income group millennials from Delhi NCR are the primary users of connected technology-based automobiles. Further, SEM analysis results show that there is a significant role played by the digital service delivery via connected technology on influencing the level of satisfaction.

KEYWORDS: Digital Service delivery, Connected Technology, Indian Automobile Industry.

INTRODUCTION

The fruition of technologies round the globe has brought change in the perspective of the customers towards their engagement with companies. Customers expect more transparency in the process and this change in attitude has led to an increase in demand for “now” service wherein the need of the customer should be fulfilled within five minutes of the contact (Duncan *et al.*, 2017). This instant service delivery requirement of the customers and the continuous rise of the competition due to low entry barriers brought change in the mode of communication between the businesses and the customers. Now-a-days, the traditional medium of contact i.e. voice channels are replaced by the new digitally advanced mediums i.e. social media, mobile, chats, or even video-based channels (BearingPoint, 2012). Companies like Google, Facebook, Amazon, and Apple have changed their business model from traditional to the newer, technologically developed one for a bigger impact on the market. This upgradation has resulted in a reduced rate of customer grievances while buying a product. However, according to a report by the Institute of Customer Service, problems experienced in the customer service

in the UK has reduced from 17% in 2008 to 11.7% in 2012 but the number of complaints has increased from 72% to 76% (BBC News, 2013). Upgraded technology in customer services thus helps attain quick and effective solutions for customer grievances. These digital connectivity technologies have created an opportunity for organizations in the form of business expansion and more profits but along with it, challenges associated with market competition also intensified (Hoong, 2013).

In order to overcome the risk of high competition and keep their customers satisfied, organizations have started usage of artificial intelligence as a form of connected technologies wherein, as per the preferences and buying behavior, relevant products are displayed to the customer electronically (Ubaldi *et al.*, 2019). These short listing of the products is based on the shift of technology from central cloud system to decentralized information i.e. personal and public information of the customer which can be availed from the devices that the customer use (Burcham, 2018). This smart form of technology improves the experience of the consumer and even provides a lot more convenience. Considering the benefits derived, customers demand more of those products which add convenience in their life and hence to satisfy this need connected technologies are adapted in each field i.e. manufacturing, utilities, and even in automobile industries. For example; recently, connected technology has been adapted by the automobile industry to provide facility of connectivity and sensors in different parts of vehicle like in brakes, gears, engine, or tires. Further, features like auto-driving and self-parking mode too are built in the car to ease the driving experience. All these additional changes in the basic automobiles model due to adoption of connected technologies increase the satisfaction level of the customer and provide the source of increased profits for companies, but at the cost of privacy. Connected technologies provide a better user experience but also intrudes the privacy of the customer via accessing critical private information (Pedro, 2012; Ravi, 2019). At 69 per cent, Indian customers are the cluster of purchasers who are anxious with the safekeeping of biometric data generated and shared with external parties by associated vehicles (Auto. Economic times).

In India, 50% of the GDP (Gross Domestic Product) of the manufacturing sector is generated through the automobile industry (Khan, 2019). The Automotive Mission Plan (2016-2026) states that contribution of automobile industry to total GDP of India would increase from 7% to 12% by 2021. However, apart from this role in economic growth, the Indian automobile industry must deal with five megatrends i.e. continuous evolution of customer expectations, technology advancement disruptive effect, dynamism in regulatory environment, mobility infrastructure changes, and global interconnection. In order to meet these trends and acquire competitive advantage, industries have adapted digital mechanism of working. Different automobile companies in India invested a significant amount of funds in innovation of customer service delivery process and reducing environmental costs. Some of these innovations are electronic vehicles by Amphere, and Ather; connected cars by NXP; vehicle tracking by Verayu; safety solutions by Kooki; driving analytics by vahanalytics; and logistics by Cubito. Further, in order to

promote the usage of automatic systems, automobile companies have integrated hi-tech robotic systems which use cloud-based intelligence for managing the destination of passenger (KPMG, 2015; Thornton, 2019). Thus, considering the role of digitalization, the Indian automobile industry is investing more in R&D works for promoting the usage of connecting technologies and having delivery of latest technologies to the customers. This study aims to assess the impact of digital service delivery via implementation of connected technologies on the level of customer satisfaction level in the Indian automobile industry.

LITERATURE REVIEW

Digital/Online Service Delivery

Leimeister, Österle and Alter, (2014) in their paper stated that the services delivered to the customers are successful only when they are personalized, real time based, context adaptive, available anywhere, easy to use, and connect people. With the growth in the usage of digital technologies, customers have become more precise about the delivery requirements and focus more on ease to use and usefulness of the services. Working on the principle of use, utility, and user centricity, each company needs to deliver products to the customers. The use-centricity principle of service delivery states that the product should be usable and add value to the experience of user. Utility centricity principle of the service delivery states that the service should be based on the value. As each purpose has different value or needs attached with the services, companies need to deliver the services to the customers as per their need. Lastly, the user centricity states that the services delivered to the customers should be based on the prefer of the customer. In order to satisfy the customer and fulfill the needs of the customers, the company should regularly innovate and develop new products for better service delivery. Digital service delivery thus consists of all these three principles to provide easy, instant, and accessible facilities to customers. McKinsey, (2019) further stated that with the growth in the digital users and adoption of internet-based services by customers, businesses across the world have adopted digitalization in their working mechanism. The priority of the business by implementation of digital business model is to deliver the products to the customers in minimum time in an efficient manner.

Hoong, (2013) in his report stated that digital service delivery is not about change in technology used for delivery of the services but instead it is about adjusting the entire working mechanism as per the change in customers' demand. The digitalization of the process helps in building the customer relations by providing the omni-channel customer interaction facility and earning the customer loyalty by providing transparency in the entire working mechanism. Further, Patel, (2019) stated that satisfaction of a customer is mainly based on their experience. Digitalization of the service delivery provides a lot more facilities to the customers. Rao, (2019) added that in order to survive in the market, companies need to continuously innovate. The basic needs of the customers are

convenience, mobility, less stress in the process of purchase, good experience with the services, and innovative products. Thus, in order to provide all these facilities for increasing the customer satisfaction, loyalty, and engagement; companies need to initially analyze the demographics of the customers and make the options available to them more personalized. In case of automobile industries, the companies need to reduce the wait time for the customers, enable automation of the service, and provide more connected experience. These facilities in this digital era could only be provided by adopting the latest technologies.

Al-Ghaith, Sanzogni and Sandhu, (2010) studied the factors affecting the online service delivery in Saudi Arabia and their study showed that competitive advantage of the company; compatibility and complexity of the purchasing process, security, and the quality of the services affect the usage of online services by the customers. Based on these variations in the usage of digital services, companies change their business model to cope up with the preferences of the customers. This concept was further studied by Naqvi and Al-Shihi, (2014) in Oman. Their study stated that the usage of mobile for commerce is increasing because M-commerce provides the facility of reduction in cost, increased revenue, and competitive advantage. But despite all these benefits, factors like privacy hindrance; strict regulatory framework; legislations; lack of awareness, security, and trust; leads to failure of the company. Further, Shatat, (2017) stated that companies like Amazon, E-bay, or Dell uses internet as a mechanism for connecting with customers. The trustworthiness, usefulness, and ease of use of the services mainly influence the adoption of online services by the customers. Thus, based on these factors the mechanism of service delivery by the companies is decided.

The decision of delivering services to customers is based on companies' need to earn their trust and build confidence. As citizens now demand for more transparent, responsive, and accessible services, this evolution in the demand patterns has brought about a change in the models adopted by such businesses. The transformation in this process starts with initially understanding the needs, demands, and priorities of the customers. Based on this information, the entire production process is designed. Thus, digital mechanism implementation in the service delivery is based on the customer centric model wherein the fulfillment of the customers need is the priority for every business (Dudley *et al.*, 2015). After the customer centric model, evolved technology has given rise to various other services presence in the model. A report of Deloitte, (2015) showed that rise in the expectations of the customers in the service delivery process has increased the demand of automated online services, less wait time, and improvement in the customer interaction quality. This variation in the perspectives of the customers has changed the business service delivery model from just customer centric approach to the automated, self-service based model.

Connected Technology

21st century began with the emergence of means to connect with each other through emails or text messages but by now the evolution has reached to the level where all things around us have feature to get connected with other things (Meola, 2017). This connecting technology is the smart technology in which artificial intelligence is present. Due to this AI presence, each thing records the choices of the customer and provides them with all the facilities as per the preferences of the customer. By recording the conversation between the consumer and the entity in form of data, the connected technology add convenience in the life of the consumers by providing all the required details about the product according to unique preferences of everyone. These connected technology function using the internet connection and this concept of functioning is called Internet of Things (Morgan, 2014). In 2017, on an average there were 13 connections of connected technology-based devices per person. Further, in total there were about 8.4 billion devices having connected technology, 33.9 million wearable devices with connected technology were sold, about 89% mobile traffic was due to smart phones, and \$1.29 trillion was invested in connected technology (Burcham, 2018). Considering this growth in the usage of connected technology-based devices and relevance of these internet-based technologies in the life of the consumers, now-a-days, each company focuses on upgrading their products and makes them more technologically advanced by installing connected technology.

Connected technology enables the function of having automatic management of the things as per the preferences of the consumer by usage of the internet as a medium. Patel and Patel, (2016) in their paper stated that usage of these technologies tend to provide the facility of interconnectivity with the global information's, consistency and privacy protection services, homogeneity in the service delivery process, adaption to dynamism, and increase in the connectivity of the people. Due to these benefits associated with the connected technologies, the perception of the consumers gets influenced. Addition of simplification in the day-to-day work of an individual tends to increase the satisfaction level of the consumers and hence, the businesses gets more opportunity of earning more profit and brand value. Rouse, (2019) further added that internet-based technologies provides consumers the ability to access all information's from anywhere i.e. convenience is added in the life of a consumer with the presence of connected technologies. These automatic technologies also improve the communication by reducing the chances of human biases in an interaction. The automated control makes the lifestyle smarter by adding quality to it and reducing the wastage of time and money. Other than being beneficial for the consumers, the installation of connected technologies in the products too benefit businesses by improving the productivity of employees; providing real time details about the market and business operations; making the production process more effective and cheaper via reducing wastage, labor cost, improving service delivery quality, and increasing transparency in the transactions. These all things influence the level of customers' satisfaction and hence affect the revenue of

the businesses. Currently in 2018 there are about 17.8 billion connected users worldwide having 7 billion IoT devices. This rate is expected to increase to 10 billion IoT users in 2020 and by 2025, the IoT users would be 22 billion. The global market of \$151 billion in 2018 is expected to grow by 2025 to the new level i.e. \$1567 billion (Lueth, 2018). Thus, with the evolution of technology and increase in number of users, all the utility-based things are based on the automated models which increase the satisfaction level of consumers.

The idea or practice of innovation is important due to the benefits it offers i.e. relative advantage, solution to complexity, and compatibility. Patel and Connolly, (2007) stated that although with the advancement in technology, there is a trend of innovation, the perception of the people i.e. the positive or negative feeling of the customers are still dependent on the perceived usefulness and ease for use of the technology. Connected technology by providing the automatic functioning and easy accessibility facility, thus attract lots of customers and increase their satisfaction level. Further, Gao and Bai, (2014) stated that advancement of technologies has diverse impact on the daily life by providing more convenient and advantageous services to the consumers. With the implementation of the connected technologies in today's scenario, though, the life of the consumers become more sorted due to the automatic services but still the perception of the consumers is influenced by various factors. Consumers prefer to adopt the connected technologies-based products only when they seem usefulness, ease to use, positive social reviews, and reduction in risks. These factors regulate the behavioral integration of the consumers and hence, businesses need to keep a check that all these necessities of the customers are fulfilled by the new upgraded product. Hsu and Yeh, (2017) and Rouse, (2019) added that a business opts to install connected technologies in order to reduce the wastage of resources, reduce time and cost, increase the expected benefits, and have more brand value. Though customers' satisfaction is increased due to positive impact of connected technologies but still the risk of disclosure of confidential information and increase in chances of technical complexity with increase in number of users also tend to reduce the preference of these technologies. Thus, all the factors like privacy, usefulness, ease to use, complexity, and risk associated with the process affect the decision of the adoption of the internet-based technology.

Empirical Review

Saha and Zhao, (2005) studied the relationship between online service delivery and customer satisfaction based on quantitative and qualitative analysis of the responses of the consumers. The interview of 4 people and survey-based data of 25 people perception was analyzed on nine service quality dimensions i.e. reliability, efficiency, privacy, responsiveness, communication, fulfillment, technology update, personalization, and technical support. The analysis show that though in all dimensions, performance of online service delivery affects the satisfaction level of customers but still, efficiency, fulfillment, privacy, responsiveness, and reliability majorly have strong impact on the customer satisfaction.

Technology based revolution do have integral role in the development of the company and having attraction of customers. Considering this aspect, throughout the world, industries focuses on installing latest technologies and recently the trend is to integrate connected technologies. As these upgradations do have impact on customer satisfaction level, thus, Ryding, (2010) analyzed the impact of installing new technologies on the customer satisfaction level. The analysis of the nine sales representatives has shown that new technologies automated the processes and bought speed and precision. Even, the communication system between the customers and the clients has improved. Thus, installation of new technologies boosts up the sales of the industry by raising the customers satisfaction.

An analysis of 400 respondents by Singh, (2013) for studying the impact of service delivery quality on the customer satisfaction of public and private banks. The study showed that features like behavior of employees, attention to consumers need, promises fulfillment, availability of information, prompt services, convenience in the process, and timely updates do influence customer satisfaction level. Presence of all these facilities motivates the customers and hence raises the satisfaction level of customers. Hence, the relationship between the banks and customers improves thus, benefitting banks as well as customers.

Shahid Iqbal, Ul Hassan and Habibah, (2018) analyzed the impact of self-service technology usage on the customer loyalty and behavior by considering consumer satisfaction as a mediating factor. The analysis of the perception of 238 users using structural equation model has shown that quality of service delivery is determined by the functionality, convenience, security, assurance, design, and customization. Through all these factors, the satisfaction level of the customer gets significantly affected and hence the behavior and loyalty of the consumer too gets influenced. Further, Foroudi *et al.*, (2018) analyzed 330 customers perception to determine the effect of smart technology usage on the customer's dynamics and experience. The analysis of the dataset has shown that the reputation of the company is always at risk with the adoption of new technology, but along with it the chances of consumer satisfaction and rise in customers' is also there. Thus, there is both positive as well as negative impact on the customers' satisfaction level.

Conceptual framework

The below figure shows the linkage between the digital service delivery, connected technology usage and customer satisfaction. It shows that the factors like complexity in the process, competitive advantage of the company over others, security in the services, quality of service provided, usefulness of the service, ease of usage, trustworthiness of the company, maintenance of the privacy in the entire online service delivery process, and cost associated with the process, influence the adoption of digital service delivery technique by the businesses and customers. Further, factors like perceived usefulness of the technology, complexity in the process of managing the work by technology, privacy

of the data recorded or conversations, reduction in the risk associated with the installation of the technology, reduction in the wastage of resources like time or money, and increase in expected benefits affect the adoption of automatic technologies by the customers in their day-to-day work and usage of these technologies by the businesses in their products.

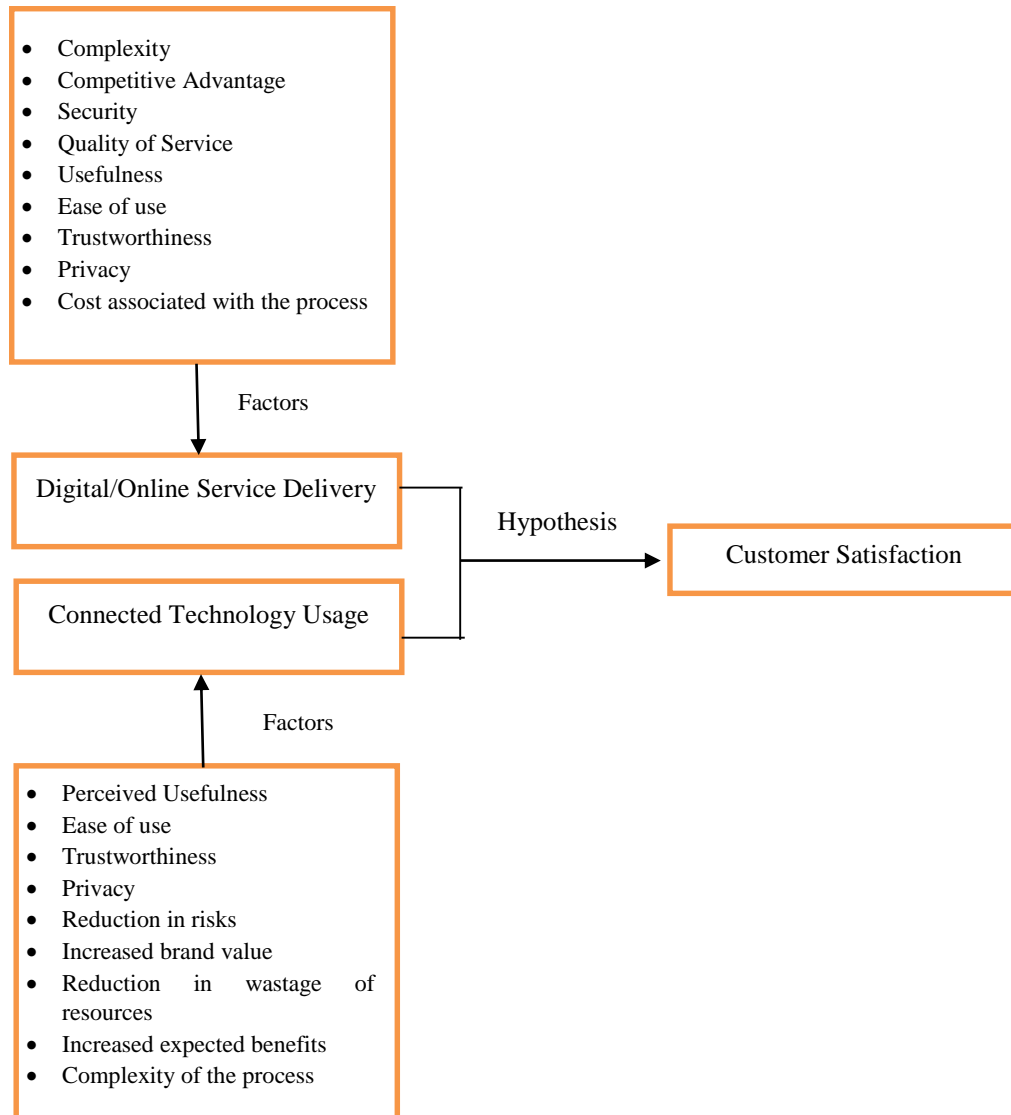


Figure 1: Conceptual framework

RESEARCH METHODOLOGY

Explanatory research design was used due to which all the factors having impact on the customer satisfaction level is explored. Using the quantitative approach in this primary study, the data was collected from the survey-based responses of the customers of premium automobile industries of India like Tata Motors, BMW, Mercedes-Benz, and Ford. In order to collect the responses of the customers, a close-ended structured questionnaire was used as a medium. The target population for the study was the consumers of above stated premium Indian automobile industry living in Delhi-NCR region. Sample of the study was selected using the random sampling method. Significance level for the study is 5%. Sample size of the study was computed using the Cochran's formulae i.e.

$$n = (z^2p(1-p))/e^2 = 125.85$$

Wherein,

n: sample size

z: confidence level z score value (i.e. 1.96 at 95% confidence level)

p: proportion of the population participating in the study (9% or 0.09)

e: desired level of precision or margin of error (i.e. 0.05)

Thus, the dataset for 126 consumers were collected via face-to-face data collection method outside the showrooms of the selected automobile companies in Delhi-NCR. The information collected from these respondents was kept confidential and no private details of the consumers were disclosed in the study. The demographic profile of the premium automobile consumers was analyzed using the frequency analysis method. These frequencies of 126 customers' responses were computed using the SPSS software. Further, the inferential section of the questionnaire was analyzed using the SPSS Amos software for determining the linkage stated in the conceptual model. Each statement mentioned in the inferential section was coded in form of variables (Table 3) in order to build the linkage between the observed and unobserved factors using Structural Equation Modeling (SEM) analysis was performed in order to test the below stated hypothesis:

H₀: There is no significant impact of digital service delivery via connected technology usage on customer satisfaction level

H_A: There is a significant impact of digital service delivery via connected technology usage on customer satisfaction level.

ANALYSIS

The demographic profile of the respondents is presented in the below figure.

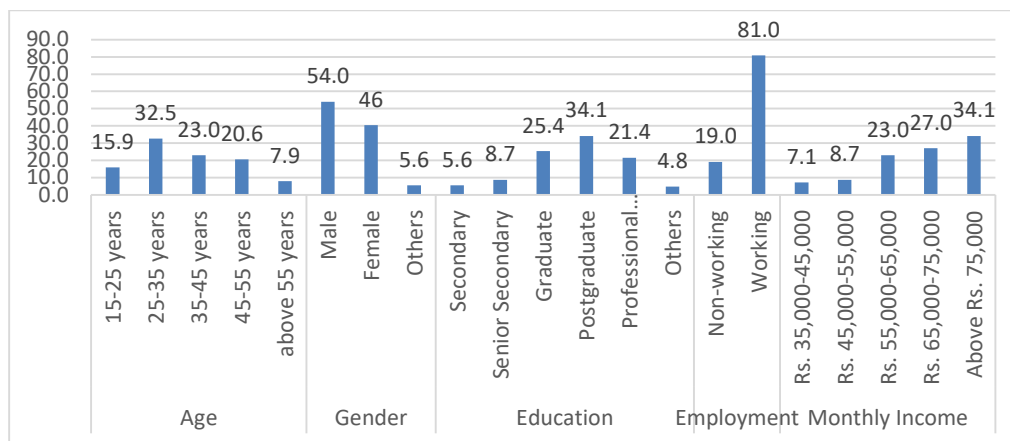


Figure 1: Demographic analysis of the consumers

The above figure shows the demographic profile of all the respondents. 32.5% of the sample belongs to the age group of 25-35 years, 23.0% to the age-group of 35-45 years, 20.6% to 45-55 years and only 7.9% consumers are from the age group of above 55 years. Thus, mostly the people belonging to 25-35 years are the consumers of premium automobiles with advanced technologies. Further, 54% of the respondents were male while 46% of the consumers were female. Among the consumers of premium automobiles, about 34.1% of the consumers have done postgraduation, 25.4% have done graduation, 21.4% are people with professional degrees, and about 5.6% of the consumers of premium automobiles has only secondary education. The employment status of the respondents shows that mostly the owners of the premium automobile are working i.e. 81% of the sample belong to working group while remaining 19% belong to non-working group. Lastly, the monthly income dataset shows that people having monthly income of above Rs. 75,000 mostly have 34.1% in the study, 27% belong to the monthly income group of Rs. 65,000-75,000, 23% respondents have monthly income of Rs. 55,000-65,000, and about 7.1% of the survey participants were from monthly income group of Rs. 35,000-45,000. Hence, the demographic analysis shows that the survey participants are mainly millennials having income age 25-35 years, male consumers, hold postgraduation degree, working, and belong to high income group.

After analyzing the demographic profile, the inferential questions posed in the questionnaire were analyzed using SEM test. The below figure shows the original model for all the statements, of the consumers which link the digital service delivery and consumer satisfaction level.

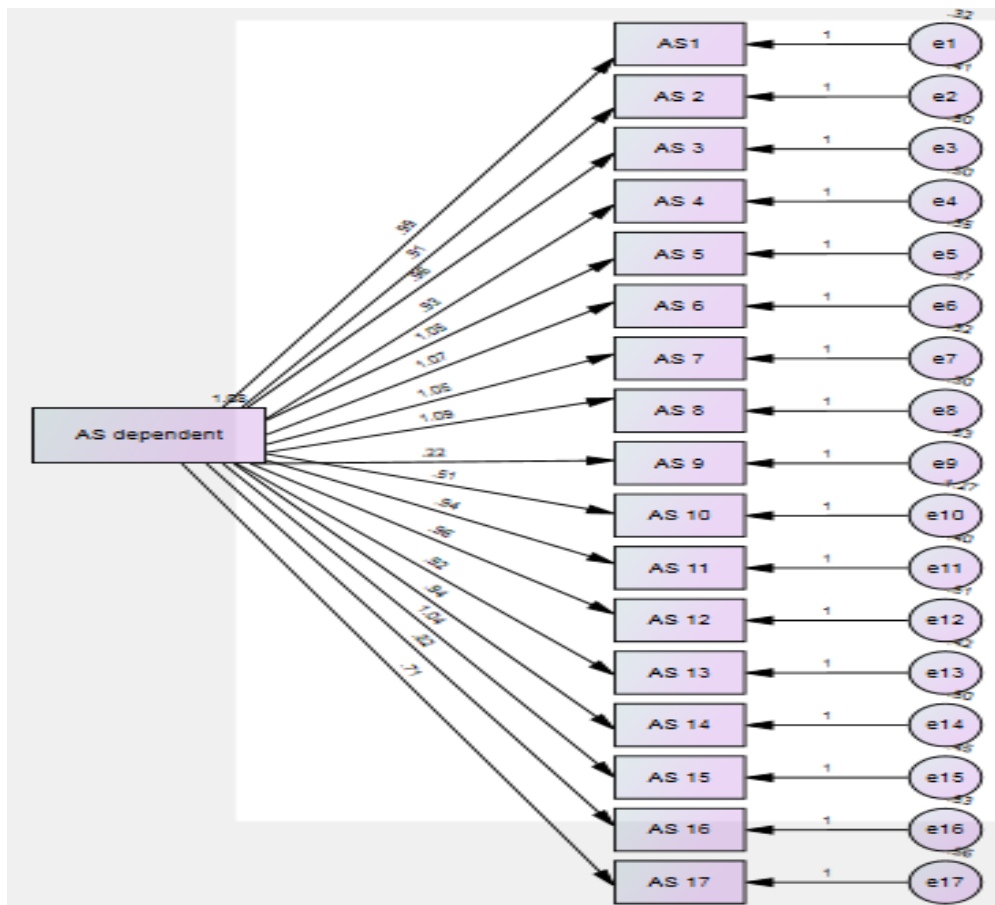


Figure 2: Original Path Diagram

The correlation values of the variables show the linkage between the variables stating the connected technology usage and the customer satisfaction level. The correlation value for all the statements is shown in the Table 4 depicts that are variables have at least moderate linkage with the customer satisfaction level as the value is greater than 0.5. However, the variables add convenience, and reduce the amount of effort required correlation value is $0.22 < 0.5$. This value shows that there is a low level of linkage between the customer satisfaction level, and convenience and effort required for the process.

Considering that there is a correlation exists between the variables and the dependent variable, thus further analysis was done to test the hypothesis of the study. The new model is framed to depict the linkage between the dependent (customer satisfaction) and independent variable (digital service delivery via connected technology). The modified model path diagram is shown in the below figure

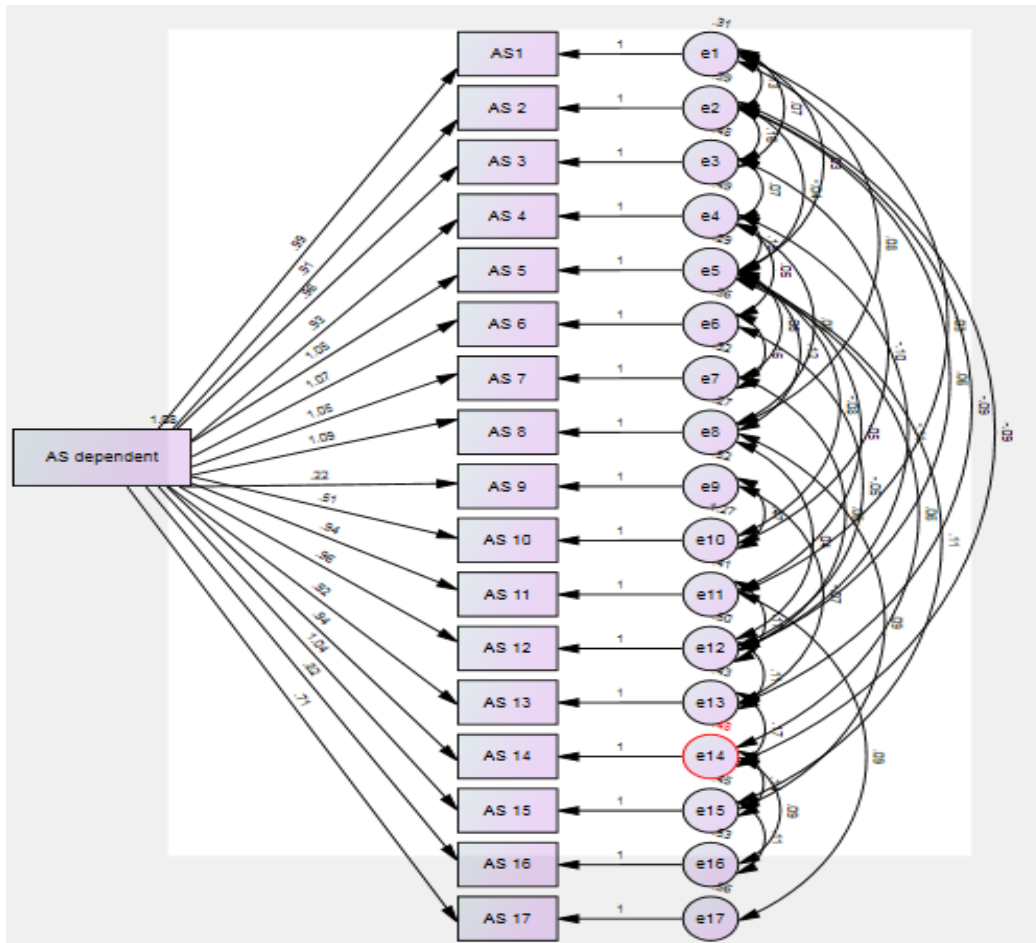


Figure 3: Final path diagram

After assessing that the linkage is possible between the dependent and independent variables by correlation, the validity of the model is tested. Based on the three main criteria's i.e. absolute fit, incremental fit, and parsimonious fit, the accuracy of the model is tested in order to depict whether the model framed to denote the impact of digital service delivery via connected technology on the customer satisfaction level. The results of the testing are shown in the below table

Table 1: Index values for model validity

Name category	of	Name of index	Index value	Adequate fit	Comments
Absolute measure	fit	CMIN/Df	1.201	Less than 5	The desired level of fit is derived
		GFI	0.898	Greater than 0.90	The desired level of fit is not derived
		AGFI	0.826	Greater than 0.90	The desired level of fit is not derived
		RMSEA	0.040	Less than 0.10	The desired level of fit is derived
Incremental measure	fit	NFI	0.958	Greater than 0.90	The desired level of fit is derived
		CFI	0.993	Greater than 0.90	The desired level of fit is derived
		TLI	0.989	Greater than 0.90	The desired level of fit is derived
		IFI	0.993	Greater than 0.90	The desired level of fit is derived
Parsimonious measure	fit	PGFI	0.525	Greater than 0.50	The desired level of fit is derived
		PCFI	0.649	Greater than 0.50	The desired level of fit is derived
		PNFI	0.626	Greater than 0.50	The desired level of fit is derived

Initially the absolute fitness of the model is tested by comparing the values of the normed/relative Chi-Square (CMIN/Df), root mean square of approximation (RMSEA), Goodness of fit (GFI), and adjusted goodness of fit (AGFI) with the optimal or required value. The CMIN/Df index value is $1.201 < 5$, and RMSEA index value is $0.040 < 0.10$. Thus, both the indexes satisfy the absolute fitness criteria for the model. Though, the index value of GFI and AGFI are 0.898 and 0.826 which is less than the required level of value greater than 0.90 but still the index values are close to the optimal level. Hence, the

model framed for studying the linkage between the digital service delivery via connected technology and customer satisfaction is absolute fit model.

Incremental fitness of the model is assessed by comparing index values of normal fit index (NFI), Tucker Lewis index (TLI), comparative fit index (CFI), and Incremental fit index (IFI) with the index values of the optimal model. The index value of all the indexes is greater than the optimal value of 0.90 i.e. NFI is 0.958, CFI is 0.993, TLI is 0.989, and IFI is 0.993. Thus, the model fulfills the condition of incremental fit model hence denoting that the linkage between dependent and independent variables stated by the model is incrementally fit.

Lastly, the parsimonious fitness of the model is tested by comparing the values of parsimony goodness of fit index (PGFI), parsimony comparative fit index (PCFI), and parsimony normed fit index (PNFI) with the optimal value of the model. The value of PGFI is 0.525, PCFI is 0.649, and of PNFI is 0.626 which is greater than the desired value of 0.50. Thus, the model representing the linkage between the digital service delivery via connected technology and customer satisfaction level if parsimoniously fit.

Hence, all the model validity tests states that the model is accurate and the impact of digital service delivery via connected technology on customer satisfaction in Indian Automobile industry could be determined accurately by having the hypothesis testing.

Considering all the variables stated in the Table 3, the hypothesis stating the nature of impact of independent variables on dependent variable is tested in the below section. The hypothesis tested for studying the linkage is

H_0 : There is no significant impact of digital service delivery via connected technology usage on customer satisfaction level

H_A : There is a significant impact of digital service delivery via connected technology usage on customer satisfaction level

The results of the hypothesis testing are shown in the below table

Table 2: Regression results of the model

Customer Satisfaction level	S.E.	C.R. (z-value)	p (sig) value
Interaction with the company	0.048	20.559	0.00
Transparent process	0.054	16.915	0.00
Prevent wastage of time	0.060	16.071	0.00
Competitive advantage	0.060	15.530	0.00
Secured	0.047	22.593	0.00
Less chances of theft	0.052	20.641	0.00
Easy to use	0.048	21.677	0.00
Information's accessible	0.045	24.170	0.00
Add convenience	0.062	3.608	0.00
Long time benefit	0.097	5.289	0.00
Improvement in experience	0.055	17.148	0.00
Innovative and eco-friendly	0.061	15.869	0.00
Accident prevention techniques	0.056	16.446	0.00
Vehicle management	0.060	15.785	0.00
Add durability	0.057	18.204	0.00
Reduce the amount of effort required	0.062	13.094	0.00
Quality of services	0.065	10.952	0.00

The p-value of the all the variables is $0.000 < 0.05$ i.e. the value is less than the required level of significance. Hence, the null hypothesis of having no significant impact of digital service delivery via connected technology on the customer satisfaction level is rejected. This result was further verified by testing the hypothesis using the z-value. As the level of significance for the study is 5% thus the critical value of z is 1.96. As the C.R. or z-value of all the variables is greater than the critical value of z thus, the null hypothesis of the model will be rejected. Further, the standard error value of all the variables i.e. S.E. value is less than 0.01. This value shows that the error in estimating the linkage of the dependent and independent variable is very less. Thus, the result depicted by the hypothesis testing is accurate and reliable. Hence, the hypothesis testing states those variations bought by the companies in the techniques of service delivery have impact on the satisfaction level of the consumers. There is a significant role played by the installation of connected technology by Indian automobile industries for digital service delivery on the satisfaction level of the consumers.

CONCLUSION

The global technological development has changed the medium of connecting people across the world. From the traditional means of connection i.e. newspapers or emails, the

world has moved towards more advanced and automated technologies like mobile chats, or voice control chat mediums. With the advancement in the technological status of the countries, the perspectives of people are also changing. The expectations of a consumer from a product, the day-to-day necessities of an individual, and even the quality of services required by the consumers has evolved. Considering these requirements, the companies too brought about changes in their business model by replacing the traditional mechanism of working from the new smart technology based automated, self-service base, customer centric business models. Usage of these models requires the installation of connected technologies which not only provide the now delivery feature to the customers but also help in sorting their lives by customizing all the features and recommendations of the product as per the choice of the respective consumer. Like all other industries, automobile industry of India too is adopting these technologies with some premium companies integrating features like wireless phone charging, electric sunroof, air purifier, cruise control, push button start/stop, keyless entry, glove box cooling, rear AC vents, automatic headlamps, touchscreen infotainment unit, and Auto smartphone connectivity. These smart features help in providing the facilities like safety, security, geographic information, vehicle management, relationship management, artificial intelligence, alert services, and location-based services to the consumers. By providing such facilities to the consumers, the businesses tend to affect the satisfaction level of consumers and considering this aspect, this study examined the impact of digital service delivery via connected technology on the customer satisfaction level.

The analysis shows that premium automobile customers are mainly millennials of high-income group who holds postgraduation degree and are working. Further, the SEM analysis depicts that there is a significant impact of the usage of connected technologies on the customer satisfaction level. This study is mainly directed towards the respondents with high income, thus further studies could be done to assess the impact of usage of connected technologies on the satisfaction level of middle-income people and examining the relevance of connected technologies in other consumer-based industries. One of the limitations of this study is that the number of respondents considered for the analysis was quite less due to less responses from the premium automobile customers across Delhi NCR, thus further study could be done to by considering responses of more people. This study thus suggests that along with providing the innovation-based facilities, connected technologies is helpful for the social and environmental welfare too, thus, it is important to make this process more cost-effective and in order to target the middle-income group people too.

REFERENCES

Al-Ghaith, W., Sanzogni, L. and Sandhu, K. (2010) 'Factors Influencing the Adoption and Usage of Online Services in Saudi Arabia', *The Electronic Journal of Information Systems in Developing Countries*, 40(1), pp. 1–32. doi: 10.1002/j.1681-4835.2010.tb00283.x.

- BBC News (2013) 'Complainers "finding their voice"', BBC News, 9 January. Available at: <https://www.bbc.com/news/business-20959424>.
- BearingPoint (2012) The Digital Evolution Journey of the Contact Centre.
- Burcham, J. (2018) 'Connected Technology & the Future of Your Data'.
- Deloitte (2015) Service Delivery Trend Outlook: The potential future of government customer service delivery, The Government Summit Thought Leadership Series.
- Dudley, E. et al. (2015) 'Implementing a citizen-centric approach to delivering government services'.
- Duncan, E. et al. (2017) Customer experience: New capabilities, new audiences, new opportunities, McKinsey & Company.
- Foroudi, P. et al. (2018) 'Investigating the effects of smart technology on customer dynamics and customer experience', Computers in Human Behavior. Elsevier Ltd, 80, pp. 271–282. doi: 10.1016/j.chb.2017.11.014.
- Gao, L. and Bai, X. (2014) 'A unified perspective on the factors influencing consumer acceptance of internet of things technology', Asia Pacific Journal of Marketing and Logistics, 26(2), pp. 211–231. doi: 10.1108/APJML-06-2013-0061.
- Hoong, V. (2013) the digital transformation of customer services - Our point of view, Deloitte.
- Hsu, C. W. and Yeh, C. C. (2017) 'Understanding the factors affecting the adoption of the Internet of Things', Technology Analysis and Strategic Management. Taylor & Francis, 29(9), pp. 1089–1102. doi: 10.1080/09537325.2016.1269160.
- Khan, S. (2019) 'Reinventing the wheel: The constant transformation of India's auto sector', The Economic Times, 5 November.
- KPMG (2015) 'Emerging trends and technologies in the automotive sector Supply chain challenges and opportunities', in Driving affordable and accessible technology innovations.
- Leimeister, J. M., Österle, H. and Alter, S. (2014) 'Digital services for consumers', Electronic Markets, 24(4), pp. 255–258. doi: 10.1007/s12525-014-0174-6.
- Lueth, K. L. (2018) 'State of the IoT 2018: Number of IoT devices now at 7B – Market accelerating'.
- McKinsey (2019) Digital India: Technology to transform a connected nation, McKinsey Global Institute.
- Meola, A. (2017) 'A Beginner's Guide to the Internet of Things, Connected Cars and the Future of Mobility'.
- Morgan, J. (2014) 'A Simple Explanation of "The Internet of Things"', Forbes.
- Naqvi, S. J. and Al-Shihi, H. (2014) 'Factors Affecting M-commerce Adoption in Oman using Technology Acceptance Modeling Approach', TEM Journal, 3(4).
- Patel, H. and Connolly, R. (2007) 'Factors influencing technology adoption: A review', in Information Management in the Networked Economy: Issues and Solutions, pp. 416–431.
- Patel, K. K. and Patel, S. M. (2016) 'Internet of Things-IOT: Definition, Characteristics, Architecture, Enabling Technologies, Application & Future Challenges', International Journal of Engineering Science and Computing, 6(5), pp. 1–10. doi: 10.4010/2016.1482.
- Patel, N. (2019) 'The Benefits and Importance of Customer Satisfaction'.
- Pedro, F. (2012) Connected Minds: Technology and Today's learners. doi: 10.1787/9789264111011-en.
- Rao, K. (2019) 'Improving customer satisfaction in the digital age | ITProPortal'.

- Ravi, P. (2019) 'Future of IOT', XRDS: Crossroads, the ACM Magazine for Students, pp. 54–58. doi: 10.1145/3351486.
- Rouse, M. (2019) 'What is internet of things (IoT)?' .
- Ryding, D. (2010) 'the impact of new technologies on customer satisfaction and business to business customer relationships: Evidence from the soft drinks industry', Journal of Retailing and Consumer Services. Elsevier, 17(3), pp. 224–228. doi: 10.1016/j.jretconser.2010.03.008.
- Saha, P. and Zhao, Y. (2005) 'Relationship between Online Service Quality and Customer Satisfaction : A Study in Internet Banking', pp. 1–107. doi: 10.1016/j.toxlet.2014.01.028.
- Shahid Iqbal, M., UI Hassan, M. and Habibah, U. (2018) 'Impact of self-service technology (SST) service quality on customer loyalty and behavioral intention: The mediating role of customer satisfaction', Cogent Business and Management. Cogent, 5(1), pp. 1–23. doi: 10.1080/23311975.2018.1423770.
- Shatat, A. (2017) 'Factors Affecting the Adoption and Usage of Online Services in Oman', Journal of Internet Banking and Commerce, 22(S7).
- Singh, S. (2013) 'The Impact of Service Quality on Customer Satisfaction in Indian Banks', Int. J. Financial Services Management, 06(01), pp. 60–78. doi: 10.22436/jmcs.09.01.04.
- Thornton, G. (2019) Innovation, NPD and globalisation imperatives, CII.
- Ubaldi, B. et al. (2019) State of the art in the use of emerging technologies in the public sector. 34. Available at: <https://ialab.com.ar/wp-content/uploads/2019/09/OECD-2019-State-of-the-Art-on-Emerging-Technologies-Working-Paper.pdf>.

APPENDIX

Table 3: Factors code for SEM analysis

Factors/Variables	Code
Customer Satisfaction level	Dependent
Interaction with the company	AS1
Transparent process	AS2
Prevent wastage of time	AS3
Competitive advantage	AS4
Secured	AS5
Less chances of theft	AS6
Easy to use	AS7
Information's accessible	AS8
Add convenience	AS9
Long time benefit	AS10
Improvement in experience	AS11
Innovative and eco-friendly	AS11
Accident prevention techniques	AS13
Vehicle management	AS14
Add durability	AS15
Reduce the amount of effort required	AS16
Quality of services	AS17

Table 4: Correlation Values between the customer satisfaction level and the connected technology

Variables	Correlation
Interaction with the company	0.99
Transparent process	0.91
Prevent wastage of time	0.96
Competitive advantage	0.93
Secured	1.05
Less chances of theft	1.07
Easy to use	1.06
Information's accessible	1.09
Add convenience	0.22
Long time benefit	0.51
Improvement in experience	0.94
Innovative and eco-friendly	0.96
Accident prevention techniques	0.92
Vehicle management	0.94
Add durability	1.04
Reduce the amount of effort required	0.22
Quality of services	0.71