Original Research Paper

Commerce

FUTURE PROSPECTS OF POSTAL SERVICES IN DIGITAL AGE IN INDIA

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ABSTRACT The aim of this study is to provide an overview of the current technological developments in the postal market and assess the potential future impact of various technologies and innovations in the market, and on consumers in particular. It also considers the issues that might arise for consumer protection authorities and possible actions to be taken. This study is conducted for the partial fulfillment of the PhD degree, using mix of desk research, expert interview and own analysis. The findings are based on literature review, expert interview and validated during interviews with postmaster, postman and customers

KEYWORDS : Digitalization , E-commerce, Postal Services , consumers, Technological developments

INTRODUCTION :-

This study provides an overview of recent developments in the postal market and research on technology trends which will impact postal consumers. It summarizes technological developments in the postal and delivery sector in the India. It assesses how technologies will change the postal market and the strategic location of the postal sector. The main objective is to evaluate how future technological development will impact consumers of postal services in the short and long run. To achieve this purpose, the study develops scenarios of future technology development. The scenarios describe the most relevant technological developments as well as conditions for their emergence such as legal conditions or acceptance of certain technologies by consumers and businesses.

BACKGROUND OF DIGITALIZATION IN INDIA:-

Once upon a time internet connectivity was a luxury for a nation. Today, in order to become economically stronger, countries need Wi-Fi, training and equipment. While India is a leader in IT, the country has a steep digital divide, mainly due to lack of internet penetration in rural areas. Without connectivity, farmers and small business owners in rural India don't have access to proper healthcare, education or financial inclusion. For this reason, leaders of India are calling for a digital revolution. In 2014, less than 20% of India's 1.2 billion population used the Internet. A major obstacle to access was cost. However, thanks to a new program the Indian market is set to explode over the next few years as the country enters a new digitization phase. In July of 2015 the government of India launched the national "Digital India" initiative to make government services available to citizens electronically by bolstering internet connectivity and improving online infrastructure. With the top priority of the administration of Prime Minister Narendra Modi, the plan aims to connect rural areas with high-speed networks and promote digital literacy

BEING DIGITAL :-

Digital is clearly a game changer, whatever the industry. Successful digital investments so far are primarily focused on managing costs and improving productivity. Now, the focus needs to turn toward investments that generate revenue. The India Post has created the Accenture post and parcel digital performance index to evaluate companies according to their current digital capabilities and identify the gaps required to make digital "business as usual."

STRATEGIC PRIORITIES:-

The research shows there are three critical areas on which post and parcel organizations should focus to deliver high performance. First, it needs to seek out monetization of the digital opportunity, going beyond productivity and cost cutting to profitable digital solutions that drive top line growth. Second, it needs to implement strategies that address new retailer and consumer demands while achieving some of the same nimble scalability as the new market entrants to win the battle for the last mile. Finally, it must recognize that ecommerce-driven, cross-border transactions present both an opportunity and a challenge, reducing transaction complexities and investing to deliver an international strategy that addresses market entry, product features and competitive position. Technology drivers in the postal sector use the terms 'technology' and 'innovation' in a boarder sense to cover devices and products with their applications and uses. Different basic technologies are an enabler of innovation rather than an innovation in the postal sector in itself. Prime examples of innovative technologies which are already used in today's postal industry are RFID chips (radio-frequency identification chips), sensors, PDAs (personal digital assistants) and also mobile internet and GPS (global positioning system). Cloud computing, big data, the Intern11et of Things, robotics, drones and 3D printing are among the most prominent technological innovations that will in future play more significant roles in the postal sector. Driven by competition and customer demand, postal and parcel operators use advanced technology for different purposes, above all to improve operational efficiency and to offer new products and services. In particular, consumer demand for faster handling of orders and more convenient delivery is driving change in the sector and technological innovations are enabling e-retailers and postal operators to respond to those requirements. For example, automated sorting and centralization of letter and parcel operations are important developments, especially sequencing of letter deliveries to street level, as well as automated scanning. These have both been facilitated by postcode granulation. In the parcels business, last-mile deliveries have been improved with technologies such as PDAs for signature scanning which also have added additional security for consumers.

Ecommerce is a key driver for postal services:-

As one of the fastest growing sectors in India in recent years, the mega trends that will shape the ecommerce sector in the near term are as follows: Geography and demography will play a critical role in the sector's future growth. Tier II and III cities and small towns have begun contributing meaningfully to the ecommerce pie and will be pivotal for future growth driven by a rapidly growing internet population and significantly low internet penetration. Advancements in technology adoption such as the increasing proliferation of devices such as smart phones and tablets, and access to the internet through broadband, 3G/4G, etc. will further lead to increase in the online consumer base. Business models have been changing rapidly in the ecommerce sector largely due to heightened competition and the inability of players to sustain high costs. Newer models such as private, white labels and drop-ship are also becoming popular. Profitability (or the lack of it!) will be the

single most critical financial challenge. Key players continue to focus on building market share. Investor interest has also compelled players to adopt the gross merchandize value (GMV)-driven approach compromising profitability. Consolidation in the near term appears inevitable. Players are aggressively rushing to build scale and those who cannot will likely be acquired. Common investors are also pushing for mergers, alliances and partnerships among players. Increasing convergence of online and off line channels. Brands and brick-and-mortar retailers are increasingly focusing on 'going online'. eTailers are setting up physical stores in order to enhance the customer experience.

Objectives:
The study has been made with the following set of objectives:
*   To compare the digital postal services offered by India post and private courier service providers.
*   To assess the use of technology by the employees of India post and private courier services.
*   To suggest methods of improving effectiveness and customer satisfaction level of the digital services offered by India post and private courier services.

RESEARCH METHODOLOGY:
DATA COLLECTION
Data needed for this research have been collected from primary as well as secondary sources. The primary data have been collected with the help of structured questionnaire and structured interview. The response of the employees and the customers has been elicited through a questionnaire while structured interview of managers of postal department and courier have been conducted.

A. Primary Source
1. Questionnaire for employees/customers in the organization. The questionnaire contains questions to assess their view on there working style and condition ,it comparison, their interests etc.
2. Interview of managers :- The Interview of Managers : It contains few questions asked verbally to tap the managerial expertise .

B. Secondary Source
Internal records of two different organizations have been collected to continue the process. The case studies, empirical studies, surveys, reports and web resources related to research topic have also been studied.

Tools of Data Analysis –
On the basis of various parameters and attributes the opinion of the employees in the form of hypothesis have been framed. The result have been tested using statistical tools such as SPSS software which analyze Chi-Square test,. The SPSS software has been used for testing of hypothesis and Chi-Square test. However manual calculation of Chi-Square test is also presented

HYPOTHESES:
H0 : There is no significant difference in use of more Technology in the Courier Services as compared to Indian Postal Services

H1 : There is significant difference in use of more Technology in the Courier Services as compared to Indian Postal Services

Chi-Square Test

fo	Fe	fo-fe	Square(fo-fe)	Square(fo-fe)/fe
26	29.35323	-3.35323	11.24415	0.383064
66	66.66667	-0.66667	0.444449	0.006667
74	77.61194	-3.61194	13.04611	0.168094
26	19.9005	6.0995	37.2039	1.869496
8	6.467662	1.532338	2.34806	0.363046
33	29.64677	3.35323	11.24415	0.379271
68	67.33333	0.66667	0.444449	0.006601
82	78.38806	3.61194	13.04611	0.16643
14	20.0995	-6.0995	37.2039	1.850986
5	6.532338	-1.53234	2.34806	0.359452
Total				**5.553106**

$$X^2 = \frac{(f_0 - f_e)^2}{f_e}$$

Degree of Freedom= (row-1)*(column-1)
(5-1)*(2-1) =4Significance Level = 0.05Table Value = 9.488

From **Chi-Square Table** the value of **4 Degree of Freedom and 0.05 Significance Level** is **9.488**

The calculated value of Chi-Square is **Less** than the Table value hence the Hypothesis is **Accepted.**

Hence we can conclude that the Private Courier Service Providers use more technology as compared to Indian Postal Services

Recommendations and Conclusion :-
*   The India Post should use systems like GPS-based technology management systems (vendor management, rate comparison, scheduling and tracking, analytics)
*   The India Post should be Analytics for demand and supply mapping (dynamic scheduling based on capacity, availability, distance and idle time)
*   The India post should use Automation: Mobile and Web Apps for (registration, ordering, LIVE tracking, deviation alerts, delivery time estimations, invoicing, payments)
*   CRM system should be adopted by India Post so that Customer relationship management works as a tool, strategy, or process which will help businesses better organize and access customer data.
*   The use of internet of things, or IoT, should be promoted for interrelating computing devices, mechanical and digital machines with unique identifiers (UIDs) so that the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.

Scope for Future:-
 If the organizations are upgraded with digital technology and the employees are trained in a proper way then there will be an improvement in employees talent ,management and leadership skills and their performance will be at their best. Then the digital practices can be implemented with a good model design for the customers and other ecommerce platforms with different models . Workforce Planning and Performance Management will also be channelized in a proper way. The customers feedback through digital channels will also enable solutions to their problems in a very quick and fast way .

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