

ROLE OF DIGITAL TECHNOLOGY ON E-COMMERCE PRACTICES FOR SUSTAINABLE ECONOMIC DEVELOPMENT IN INDIA

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Abstract

Now a day's digital technology plays an important role in every aspects of human life such as application of digital technology in education, information and technology, production, engineering communication, banking, agriculture, administration, e- commerce, on line survey etc. The article is devoted to the problem of development and influence of digital technologies on e-Commerce enterprises. The types and forms of digital technologies used in this field are studied the characteristics and features of modern e-Commerce in the Indian chamber of Federation of commerce are considered. The modern Indian e-Commerce market still lags behind foreign ones in terms of the number of users and assortment, but it shows high annual growth rates. The article substantiates the point of view that the further development of e-Commerce is one of the key drivers of growth of all trade in the Russian Federation and the economy total. So, it is very important to assess not only the current state of the e-commerce market, but also to identify perspective trends in its development. E-commerce analysis of research if indicates that modern digital technologies can shape and control the way that a buyer goes from getting acquainted with a product to purchasing it. Digital technologies help to create new patterns of customer relationship. The article offers an overview of the main areas of use of digital technologies that are used in this field: Big Data and personalization, mobile Commerce, Block-chain technology, social networks.



This overview can be useful to the scientific and business communities when conducting research in the field of digital economy, when building business plans and strategies taking into account the use of modern digital technologies in the development of the information society.

Keywords: Digital Technology, e-Commerce, digitalization, digital economy mobile commerce, personalization, block-chain technology, social networks, Omni channel business

I. INTRODUCTION

At the present scenario of economic development in India, innovation and information, including digital technologies, are crucial for the effective functioning of enterprises and industries. Digitalization has a direct impact on business structures and government institutions, on the social and cultural sphere, on the development of society as a whole. [17] Digital technologies create a new value and allow leading enterprises and industries to achieve certain advantages in their field and to enter the international level. [14] E-commerce, as a result of the initial dependence on the development of informational and digital technologies, is the most steadily developing sector of the economy of the Indian Chamber of Commerce and Federation (ICCF). The active growth of the industry over recent years has had a serious impact on the economic development of traditional trade, interconnected industries and the state as a whole. [16]

Thus, the problem of the state and prospects estimation for the development of the e-commerce industry, taking into account the usage of digital technologies, is one of the important and urgent problems of the Russian economy. [4] At the moment, e-commerce organizations and enterprises are exploring new markets, studying the needs of customers, using the information necessary for this. They respond quickly to various changes in demand, reducing both financial and time costs, significantly increasing their competitiveness. Many offline enterprises and organizations today create online channels for sales, promotion and additional customer service. There are many factors limiting the development of electronic commerce (technical lack of training, an unworked legislative base, an insufficient number of specialists), however, seriousness and significance, as well as the growing potential of the electronic commerce market in our country, should be noted. [5]

II. LITERATURE REVIEW

In this section, we the researchers have studied 65 number of research paper. 25 Periodicals, books of e- commerce and 10 number of company's e- commerce's web portals its practices through online on the secondary source as well as primary sources also. We have collected 500 consumers response while they are buying online shopping on the modes of e-commerce from different commercial outlets, Thus, analyzing segments of the Indian e-commerce market, it could be divided into three main categories: trade in goods (online retail), trade in services (transport tickets, hotel reservations, consumer services, etc.), content trading (video, music, books, software) and electronic banking, i.e, electronic payments. [10] electronic commerce in India are: - the increase of the number of industry participants; - digitalization; - building long-term strategies; - large financial investments; - strengthening both electronic and information security; - improving the quality of service and expanding customer service; - the increase of consumer loyalty to e-commerce [2] Data Insight published a rating of the largest online stores in India according to the results of 2018. The rating was prepared with the support of the Indian commercial Post. It



included the hundred largest Indian stores in terms of online sales by the end of 2020.

III. RESEARCH OBJECTIVES

The following research objectives have been taken by the researchers in order to justify the taken research problem as related with the expected hypotheses for getting a result based outcomes.

- To study the consumers buying behaviour in India on the Platform of E-commerce for increasing Economic sales and Consumer sustainability
- To focus on cost effective management by cost reduction, and E-Commerce helps them do the same effectively. The automatic process of e-commerce helps to reduce the cost of management.
- To use of Proper technology, Digital Marketing, can help you gain more customers without investing much.

IV. DEVELOPING BUSINESS RELATION AND CONSUMER SUSTAINABILITY

In India, when businesses use e-commerce uses as a primary technique, they can easily grab achievement, there is direct communication between the company and customers, and the relationship boosts up. Eventually, companies can connect with more customers and result in increased economic growth through high volumes of sales.

V. CONSUMER BUYING BEHAVIOUR AND SUSTAINING EXISTING CUSTOMERS

In India, Customers are the core element of any business whether it is b2b or b2c, and making a stable relationship with your existing customers is significant. E-commerce helps you sustain your customers for a longer period. When you continuously interact with your customers on a network on which they usually spend time, you will build a strong connection with customers. Social media networks are the most used platforms, and with these, you can grab your customers' attention. With E-commerce, you can establish a brand name using social media networks.

VI. APPLICATION OF DIGITAL TECHNOLOGY WILL ENHANCES THE EFFICIENCY OF SERVICES

Application of digital technology for the online E-commerce platform, you can boost up your efficiency. Opting for E-commerce not only increases your sales but also helps as a cost-effective method. With E-commerce, you can reduce your managing and warehousing cost. It eventually helps you save more funds at your disposal. You can also reduce delivery time with E-commerce and make your customers happy.

VII. METHOD OF STUDY

In this section, we the researcher have followed both the method of data collection such as primary and secondary mode of data collection, we have targeted 500 respondents and 10 number of online shopping platforms of e- commerce such as Amazon, Flip Kart, Alibaba, Myntra, Indian Mart Nykaa, etc.The basis of this list is a comprehensive methodology for rating building and data



collection, including, amongst other things, a phased refinement of rating data from representatives of the stores themselves. The rating of online stores includes data on the volume of online sales and the number of orders as uses of digital marketing on mode of e-commerce.

VIII. HYPOTHESIS

The researcher have been taken two research hypotheses such as Null Hypothesis (Ho) and Expected Hypothesis (He), here, the hypothesis are given,

Null Hypothesis (Ho)

This hypothesis refers about the application of digital technology on e-commerce Practices has no impact for increasing sales and consumer sustainability .it may increasing sales volume little bit as practices of sales increased.

Expected Hypothesis (He),

This hypothesis, refers when the e-commerce Practices uses more and more through the application of digital technology and digital marketing on e-Commerce Platform, it sustain a good consumer relation by which sales will be increased and economic development also increased in India and the world.

In connection, with the researcher has taken The three leaders include the largest online stores in Russia as compared with Indian e-commerce platform and stores:

1st place: - wildberries.ru, turnover was 111,200 million roubles, an increase of 74% from 2017 2nd place: - citilink.ru, turnover was 73,200 million roubles, an increase from 2017 is 33%

3rd place: - mvideo.ru, turnover of 52,800 million roubles, an increase is 46%. [8] Thus, today the ecommerce market is an important component of the life of the population. Internet users order goods and services in real time, payment and delivery of products could also occur within the network. [3]

IX. THE CONCEPT OF E-COMMERCE

As the word E- commerce is concerned, it is refers one types of electronic mode of buying and selling of goods and services or the transforming the forms of data over the electronic means of networking through internet .It is primarily focused on business transaction occurs either business to business B2B or Business to Consumer (B2C) or Consumer to Consumer (C2C) for achieving business goal over internet platform. The e-commerce market is a kind of virtual space in which communication is carried out with the aim of mutually beneficial cooperation between various economic agents through the electronic systems usage. In addition to the obvious advantages of this market, such as time saving and usability, it is necessary to note such advantages of working in the field of e-commerce for entrepreneurs as the global Internet, that is, the lack of borders, lower transaction and marketing costs, which significantly increases competitiveness and has a stimulating effect on development of small and medium enterprises. There is an increase in the number of management objects (management of information, knowledge, creative and innovative potential, customer relationships, etc.). [18] [20]

This is especially true in connection with the development of the digitalization process and the formation of the economy 4.0. [13].



International Journal Of Core Engineering & Management

Volume-7, Issue-1, 2022 ISSN No: 2348-9510

X. TOP E-COMMERCE SITES IN INDIA

In India, there are many world based net-working e- commerce platforms are doing e-commerce transactions such as:

- Amazon India: it estimated number of monthly consumers and visitors 322, 54 million.
- Flip Kart: it estimated number of monthly consumers and visitors 422, 62 million.
- Alibaba: It estimated number of monthly Visitors 175.95% Million in globally and visitors 4.19, percent in India.
- Snap deal
- Myntras
- India MART
- Book My Show
- Nykaa
- Others

E-Commerce Platform	Monthly Visitors(In Million)	% of User of D. T on e- commerce Practice (Urban)		% of User of D. T on e- commerce Practice (Rural)		% of visitors
		Μ	F	Μ	F	
Amazon India	323.3	57	43	58	42	31.149
Flip kart	230.5	51	49	56	46	22.208
Alibaba	225.4	58	42	53	47	21,716
Snap deal	50.8	55	45	52	48	4.894
Myntras	44.3	57	43	56	44	4.268
India Mart	67.4	58	42	54	46	6.493
Book My show	54.9	54	46	56	44	5.289
Nykaa	41.3	52	48	53	47	3.979
Total	1037.9	442	358	438	444	100,00%

XI. DATA TABLE: I Refers E- Commerce Sites and its Visitors in year 2020



a. SEMIOTIC MODELS OF MONTHLY VISITORS IN PIE CHART

The pie chart and barograph shows about the monthly visitors' percentage are using e-wallet at various e- commerce platforms



b. SEMIOTIC MODELS OF VISITORS IN BAR-GRAPH





c. FINAL RESULT TABLE

Metrics/	Male	Female	Highest	Lowest
Evaluation	users of	users of	% of	% of
	DT	DT	visitors	visitors
	both	(Both		
	Urban	urban		
	and	and		
	rural	Rural		
Mean	800	882	Amazon	Nykaa
Value			India	3.979
			31.149	
Mean	82			
Difference				
%of		27.170		
Visitor				
Difference				
(Highest-				
Lowest)				

XII. HYPOTHESIS TESTING

In hypothesis testing, we may understand that when consumers on the e-commerce Practices uses more and more through the application of digital technology and digital marketing on e-Commerce Platform, it sustain a good consumer relation by which sales would be increased and economic development also increased in India. So that the obtained ratio is so high related to use of digital technology therefore, Null hypothesis (Ho) is false and the alternative hypothesis (He) is accepted

The aforesaid business platforms are using .E-commerce enterprises are using digital technologies quite actively in comparison with enterprises of other industries in the Indian chamber of commerce and Federation (ICCF), although not as actively as their foreign competitors do. This seems logical, since the emergence and functioning of ecommerce enterprises is due to the development and spread of the Internet, and, accordingly, information and digital technologies and tools. [9] The main trends affecting the structure, dynamics and forms of development of electronic commerce in India largely coincide with the directions of development of global electronic commerce; however, they have some differences also. [12]

The development of electronic commerce in the Indian Chamber of Commerce and Federation (ICCF) is currently taking place in the following main areas, which are based on digital technologies: - mobilization, in other words, the growth of mobile commerce - an increasing number of purchases are made using mobile devices, phones and tablets. Mobile applications also stimulate an increase in the number of customers, as they greatly simplify communication with companies offering goods and services. So, according to the results of a survey of PayPal and DataInsight in 2018, 23.4% of Indian users made purchases through the website of an online store



using a smartphone, and 22.3% used mobile applications to order.

The increase in mobile Internet users, today in India these are people from 15 to 40 years old, stimulates the development of mobile commerce. It should be noted that as a result, sales in the mobile commerce segment are growing much more actively than in e-commerce in general; [8] - personalization and work with large volumes of data (Big Data) - collecting and analyzing customer information opens up new possibilities: creating personalized product sets, which are based on purchase history, developing targeted offers and providing discounts to increase conversion, providing the visitor with the most convenient option for interacting with the Internet -store based on heat map statistics. Real-time monitoring allows online stores to organize and optimize the sales process. The usage of Big Data helps to deepen the personalization of stores, complicating the mechanism for setting the choice of goods, but this is a plus for the consumer, since he can adjust the choice to his own preferences, and the list of criteria for choosing products becomes larger, making the products presented at the end of the selection more suitable for individual buyer; [15] – Block-chain is a distributed registry system, which based on mathematical algorithms and technologies of cryptography and security allows you to store any kind of information in data blocks in digital form. [7]

XIII. BLOCK CHAIN TECHNOLOGY IN E-COMMERCE

The introduction of block-chain technology into electronic commerce will lead to the emergence of many free micro-markets. This will be facilitated by an increase in the number of e-commerce players: the threshold for entering the business will become lower, since digital tools based on distributed ledger technology for accounting, logistics, inventory management; budget planning and payroll significantly reduce operating costs. This technology can be applied to absolutely any type of data, and therefore block-chain is considered a revolutionary technology. The decentralized registry in which this data will be stored is almost impossible to crack. The essence of decentralization is that the data is stored on a huge number of separate computers on the network, and not on one centralized server, which is hacked and the data is stolen; [6] -Socialization (Social Networking Services) - the usage of social networks for the purchase of various goods and services. Social networks are the universal environment for organizing electronic commerce, as they have a number of advantages: they include a wider and, at the same time, specific coverage of the target audience. A regular, traditional advertising company is much more expensive than advertising in social networks. In modern conditions, social networks exceed the popularity significantly of all traditional advertising media and the audience is constantly growing. Advertising in social networks is nonintrusive, non-aggressive and is recommendatory on the part of other users, friends, and acquaintances. Advertising in social networks or the socalled targeted advertising is one of the most effective tools for goods and services promotion, which makes it possible to increase sales through a social network and improve communication with a client. It includes animated or text messages those users of the network see and that meet the set of criteria specified by the advertiser. This is an advertisement intended for a specific target audience, that is, it has the ability to address advertising messages only to those who may be of



interest to them. Targeted advertising on social networks makes it possible to advertise a product without a website; use flexible settings for choosing the main target groups, and work with each group separately developing advertising messages for different audiences. A promising tool for working in social networks is the work to create and promote communities; [10] [11] –Omnichannel of e-commerce - is the use of all together or a certain number of channels in the process of working with a buyer. The receipt and storage of information makes it possible to further analyze this information and create an Omni- channel service on the basis of it.

XIV. FUNCTION OF OMNI -CHANNEL

The Omni-channel functioning is possible in several versions - firstly, this is the offer of goods and services depending on the needs of the buyer, and secondly, the availability of goods from any device online and offline. Large producers of goods and services today use, at an average, nine communication channels. The ability to make a purchase anywhere - on the social network page or in the messenger is highly appreciated by modern consumers. [21] All channels are interconnected and complement each other, thus forming a single system or platform that connects the seller and the buyer: email, social networks, messengers, voice communications, mobile applications, search queries and push notifications. [19] It is necessary to emphasize the growing relationship between the digital technologies usage, working with databases and information software, high-tech equipment, on the one hand, and drawing up business plans, building a marketing strategy, developing financial models, analytical reports, on the other. A change in one of these components often leads to changes in the other components. This relationship becomes especially significant when long-term strategies are developed. Increasing the market share, moving towards improving the quality or lowering the cost of services while increasing the productivity of workers - are increasingly dependent on the types and quality of modern information and communication technologies in the enterprise. [1]

XV. CONCLUSION

From the above discussion it should be concluded that the introduction of modern digital technologies in the field of electronic commerce gives enterprises undoubted advantages: this is an opportunity to optimize business processes and receive more necessary information, which means making more rational and informed decisions, improving communication with consumers with using digital technology more and more and improve logistics, and what is most important - to compete successfully both on the Indian and international markets.



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