Strategic Management of Digital Transformation: A Case Study of Successful Implementation

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Abstract

ICT has started to have a significant impact on businesses due to the rapid advancements in computing and communication technologies. Organisations are using ICT to redefine industry competition, restructure organisational boundaries, and redesign business processes. DT is being quickly adopted by ICT-enabled organisations. By improving connectivity and recombination, DT is not only upending established enterprises but also improving the value propositions that already exist. Big Data solutions, mobility, data analytics, Internet-of-things, and social media are examples of new generation ICT technology. All of these technologies are referred to as "digital technologies." To create a digital business model, several components of a traditional business model are swapped out for digital technologies. By creating, developing, and delivering superior value propositions, a digital business model redefines conventional value propositions. In the age of internet purchasing, strategic approaches for digital transformation are discussed in this article.

Keywords: Digital; Online Shopping; E-Commerce.

I. INTRODUCTION

The National Association of Software and Service Companies (NASSCOM) and the Organisation for Economic Co-operation and Development (OECD) have defined e-commerce. "Carrying on of the commercial transactions between two or more parties electronically, i.e. through the Internet or closed network (Trisnawaty et al., 2021)" is the common theme that unites their definitions. The telephone, radio, and television were invented by the turn of the 20th century. The type and source from which communication was principally freed were fundamentally altered by all of these inventions, and as a result, communication became the main means of managing mass consumer culture. With the development of the Internet, communication technology has not only made the system cohesive, interactive, and unbroken, but it has also opened up entirely new possibilities for partnerships across industries. Following the development of e-Commerce and its many applications, we may go back to the 1970s, when the Internet was still developing and was being used by the USA military as a rapid means of communication. Then, in the 1970s, only the bigger companies began setting up private networks to exchange data with suppliers and business associates. Electronic Data Interchange (EDI) is the term given to this procedure (Chanias, 2017). It sent standardised data across companies to expedite the procurement process and do away with paperwork and human interaction. Almost all Fortune 1000 organisations will eventually adopt EDI to introduce efficiency into its operations

as it continues to work towards cost reduction and efficiency improvement. This served as electronic commerce's cornerstone. A new economic climate and set of business practices are made possible by electronic commerce, or e-Commerce, which is the exchange of goods and services between customers and sellers via the Internet. Information technology (IT) breakthroughs and economic incentives are the main causes of e-Commerce's unrelenting rise. The results of research indicate that the availability of new online services and information, access to new markets, reduced transaction costs, improved transaction speed and accuracy, and faster delivery times all contribute to the major economic benefits that e-commerce offers to both customers and sellers. The growth of e-commerce has been fuelled by traditional retail sales (Balakrishnan & Das, 2020). By using a different platform, including new channels in customers' purchasing consideration sets, and providing them with an extra option, the marketers aimed to increase sales. All of this came at the expense of conventional retail. Even while traditional sales currently generate significantly more money than electronic sales, internet sales have also earned enough cash to be regarded as a serious competitor and market challenger (Mäkinen, 2017). Figure 1 represents the features of Digital Transformation (Fischer et al., 2020).

Figure 1: Features of DT (Source: Web)

In this case, the introduction is examined in section 1 of the article while the pertinent literature is examined in section 2. Section 3 and 4 explains the goal of the work, Section 5 shows the discussion of the work, and Section 6 concludes the project.

II. LITERATURE REVIEW

The effectiveness of commercials is also measured via social media sites. It is conceivable because user "clicks" on advertisements and links are objective, meaning that clicking on a certain advertisement or link indicates the user's objective desire to learn more about the brand (Sánchez & Zuntini, 2018). Because users who click on the link are more likely to engage in the purchase cycle than those who are exposed to the advertisement without their express assent, this serves as a successful marketing and sales activity. Through targeted marketing initiatives that seek to comprehend user behaviour and attitudes and then engage in targeted marketing rather than

winging it, social media is also utilised to attract new clients. By appropriately focussing on recognising the obstacles, the global e-Commerce industry can decrease, if not completely remove, some essential challenges in order to reach the intended goals (Wolf et al., 2018).

With China making up almost 50% of the global e-Retail business, Asia-Pacific is currently the largest retail e-Commerce market. In the near to mid-term, the Asia-Pacific area will keep expanding and contributing at the fastest rate. Over the course of 2016, global eCommerce revenues surpassed $1 trillion, surpassing even the highest estimates. In 2016, the global marketplace generated $1.915 trillion in revenue. By 2020, it's anticipated that revenues would increase by 40% to reach $4 trillion. Ecommerce growth in the region will be fuelled by factors such an expanding middle class, increased Internet and mobile adoption, growing rivalry among ecommerce businesses, and improved infrastructure and logistics (Cui et al., 2022). Since there are now more opportunities for direct encounters between sellers and buyers (i.e., the offline environment), a vast amount of unanalysed data has appeared. However, the majority of the literature now in existence on customer behaviour is still based on this scenario. It is important to comprehend and recognise the characteristics that will be crucial and influential in the decision-making process of online buyers (Kutnjak et al., 2019). These attributes could be online-specific attributes like layout and the user experience of navigating a portal or its app that impact the decision-making of the online consumer, or they could be offline attributes like price, quality, and delivery time. It is also necessary to ascertain the veracity of social media platforms' influence on online communities' purchasing decisions. This is true since the majority of people in India, a market that is always changing, use social media to communicate online. Furthermore, in the age of instantaneous and diversified knowledge and experience sharing, every customer in an online shopping environment depends not only on his personal experiences but also heavily on "others'" experiences with the company. It is necessary to thoroughly examine these shifts in the purchasing habits of customers in order to support the expansion of e-Commerce and gain a thorough understanding of the social changes that are occurring (Vukšić et al., 2018).

III. GENERAL TRANSACTIONS OVER INTERNET

Researchers in the field of brand and marketing proposed early in the past ten years that when a customer visits an online store, they should consider making purchases under one of two categories—search or experience (Rêgo et al., 2021). Nonetheless, the primary motivator for increased online transaction conversion ratios is end user involvement. End-user engagement outcomes are dependent on purchasing behaviours and preferences in addition to features, services, UI/UX, and digital technologies used. Predominant personality traits are likely to have an impact on a buyer's conduct. Therefore, high-quality research examining how important personality traits affect a person's digital quotient may contribute to increased end-user engagement. The always changing digital revolution must investigate end users' online buying habits and attitudes towards making use of online platforms. The way a person interacts with an online platform is measured by the Digital Quotient (DQ).

Considerable research has been done on the impact of social and psychological factors on users' acceptance and adoption of computing technologies. This has led to the development of the technology adoption model (TAM), which offers a model emphasising the importance of

empirical factors in defining how a new technological system is used (Nicolás-Agustín et al., 2022). The "Big 5 personality traits model" was proposed by further research in consumer psychology and critical attributes for an end user. The big 5 theory is said to be the most universal in its capacity to explain end users' behaviours, yet little study has been done on how this model affects the use of digital platforms.

Because online shopping platforms offer greater convenience and don't rely on physical locations, users' embrace of the telecom revolution has expedited their use. According to Statistica.com, next generation users frequently utilise their mobile devices to quickly check the opinions of other users on social media networks. According to KPMG, customers who shop in physical locations also examine prices online, and a lot of them ultimately make changes to their decisions as a result of this access to information. When compared to web browsers, mobile applications increase conversion rates because they foster a user's sense of trust and loyalty towards the e-commerce website.

A user-conducted commercial transaction on a digital platform is referred to as e-commerce (sometimes known as s- or m-commerce), depending on where the user traffic originates from. When it comes to online sales of goods and/or services, the level and calibre of client interaction on any digital platform is a crucial factor. In order to boost lead conversion rates, the industry has engaged in research on the applicability and utilisation of "Internet Data Technologies" in sCommerce and eCommerce. This research aims to improve or increase the effectiveness of "Buyer's Engagement." On the other hand, the lead conversion ratio is only one digit and extremely low. Therefore, even though there has been a significant increase in the number of buyers using online commerce platforms, the effectiveness and efficiency of these platforms still fall well short of industry standards when compared to physical channels, which typically have a 7% to an 11% scalability in certain industries. When a click results in the intended return of the homepage, the bounce rate—a measure of how sticky the platform is towards end user engagement—increases. A website or mobile app with a bad user interface may turn off potential customers, which is frequently interpreted as a high bounce rate. According to research from the Baymard Institute, any push by design to require users to create an account or login while also requesting personal information will cause a pushback from the buyer's end and result in a high rate of dropouts. These bounce rates can be decreased by about 35% by offering a better UI/UX (Albukhitan, 2020).

Therefore, even while eCommerce holds out hope for the future, larger gaps in the online ecosystem eventually conceal a host of flaws and inefficiencies that prevent increased lead conversion rates. Better returns on eCommerce investment can be obtained by enhancing user ergonomics and UI/UX designs and integrating them into online business processing and operational models. Although internet technologies have been thoroughly studied in recent decades, further research is needed to fully understand the relationship between eCommerce adoption factors and buyer psychological traits (Cichosz et al., 2020).

3.1. Proposed Framework

The respondents will be chosen for this study utilising Snowball and Judgement sampling techniques. Respondents were contacted using the non-probability sampling technique known as judgement sampling in locations such parking lots, college campuses, and retail centres. It was

anticipated that there would be a large number of responders at these sites who would likewise be open to this kind of study (Susanto et al., 2023). Based on factors such as age, gender, income, social standing, and educational background, judgement sampling was carried out. The researcher believed that respondents who had personal, hands-on experience with online buying would make better survey subjects. Personal references were used to indulge comparatively older respondents, which resulted in the application of the snowball model of approaching respondents. The persons in the age group who are known served as the starting point, and from there, things were further advanced using the references that earlier respondents had provided (Steiber et al., 2021). Digital Transformation in Online Shopping shown in Figure 2.

Figure 2: Digital Transformation in Online Shopping (source: Web)

There were 542 completed questionnaires in all that were returned. Of these, 119 respondents indicated they now shop offline (in a typical brick and mortar store) and 423 respondents indicated they purchase online. To arrive at a definitive analysis, primary data—the other external source of data collection—has also been utilised. Data was gathered by means of distributing a survey. After about 700 surveys were distributed, 542 completed surveys were received and tallied for analysis. This has made the research more thorough and deterministic in character (Vogelsang et al., 2018).

The Delhi NCR region, which encompasses the cities of New Delhi, Faridabad, Gurgaon (Gurugram), and Noida, has been the main source of data. The primary use of secondary data has been in performing reviews of the literature and offering evidence to back up any conclusions drawn when writing the thesis. Since this study was not organization-specific, no internal sources of secondary data were taken into consideration, with the exception of mentioning a specific organization's finances in some circumstances. Aside from that, the course has made use of external sources for secondary data collecting, including research papers, journals, magazine articles, newspaper stories, and government-published materials with statistics (Adama & Okeke, 2024).

The hypothesis and any inferential analysis that has been drawn are tested using one-way and two-way ANOVA in order to extract analysis from the data that has been thus acquired by empirical methods. Additionally, all additional tests have been conducted using Pearson's correlation test.

IV. EXPERIMENTAL ANALYSIS

A total of 542 respondents from the Delhi NCR area participated in the study. The respondents were contacted by the researcher in a number of locations throughout the geographic area. The researcher contacted the respondents, who are from Delhi-NCR, in the following areas: Noida, Central Delhi, North Delhi, South Delhi, West Delhi, Ghaziabad, Faridabad, and Gurgaon (Gurugram). The respondents were contacted in shopping centres, local markets, residential communities, and multiplex theatres. The genders of men and women were contacted. There were two sections to the questionnaire: Part A and Part B. The first one was for the respondents who now shop online, and the second one was for those who would rather shop in person. Even if they didn't engage in internet buying, a small number of persons coincidentally answered this poll. 78% of the sample respondents who completed the full questionnaires go online to make their purchasing selections, whereas 22% of them currently make their purchases offline, as shown by the tabulated results in Table 1. The data indicates that a significant number of consumers are using the internet for their shopping requirements. But a sizable portion still favours doing their shopping offline.

Table 1: Participants Profile

Sl. No	Variable	Sample	Numbers
1	Gender	Male	207
		Female	202
2	Age	Low (below 30yr)	174
		High (above 30yr)	235
3	Educational Qualification	Graduate	149
		Post-Graduate	260
4	Type of purchasing	Online	246
		offline	163
5	Marital status	Married	290
		Unmarried	119
6	Shopping Preference of Respondents	Electronics	287
		Books & Stationary	90
		Apparels & Accessories	32
	Locality	Food & Grocery	250
		Baby Products	159
	College	Home Decor	195
		Travel	214
7	Income	Low (Up to Rs.10,000)	175
	(Monthly)	High (Above Rs.10,000)	234
Total			

Karl Pearson's Correlation approach was employed to derive inferential statistical analysis between the several VFs (Variable factors) and their separate affects on the frequency with which the online buyer is visiting online to shop. It is necessary to take into account five assumptions in order to perform a Pearson's correlation. The first three have to do with how well the data fits the Pearson correlation model, whereas the first two are related to the research methodology and measurements selected. Opinion of digital transformation shown in Table 2.

Table 2: Opinion of Digital Transformation

Item	**Strongly agree**	**Agree**	**Disagree**	**Strongly disagree**
Positive	4	3	2	1
Negative	1	2	3	4

Four statements were given to the respondents, who were asked to rate each one using the following three options: frequently, occasionally, or never. The choices would give the researcher an idea of how respondents felt about the different online reviews that are accessible on the portal and applications. Regression Analysis of digital transformation shown in Table 3.

Table 3: Regression Analysis of Digital Transformation

Source of Variation	**Sum of Squares**	**df**	**Mean Square**	**F**
Regression	20144.243	2	10072.122	33.008**
Residual	123887.698	406	305.142	
Total	144031.941	408		

Social media ratings and reviews seem to have a big impact on how online shoppers make decisions. Electronic word-of-mouth (e-WOM) is generated by the reviews, and the percentages show how important positive evaluations are to the brands. EWOM from a range of relevant social media platforms can influence prospective buyers. Online reviews have emerged as the online "Reference Groups" of choice for the community prior to, during, and following online purchases. Using SPSS, a one-way ANOVA was used to test the hypothesis. It was selected because the variance of the samples is unknown and the researcher wanted to determine if the results are the product of chance or the factual mental processes of the respondents. The only statistical test that can determine the mean difference between a tested mean value and a fixed mean value is this one. Based on the researcher's determination of the mean of the required positive reaction, the mean level for the scale can be set. Since a sample mean value of less than two implies a negative answer and more than three suggests a positive response in the form of "a lot," a mean value of three was fixed for this study. If the same research is done again, there is a more than 95% chance of obtaining the same result, as indicated by a "p-value" of less than 0.05. Four presumptions must be taken into account in order to execute the test. While the remaining two assumptions concern how the data match the one-sample t-test model, the first two assumptions are related to the study design and measurements selected.

Table 4 indicates that Pearson's correlation was used to evaluate the association between the price and offers and the frequency of online shoppers' purchases. The results of the test indicate that there was a negative link between the respondents' frequency of online shopping and the price or offers. The Pearson correlation coefficient, or "r," has a value of -0.061. Additionally, there

is a 0.208 statistical significance (p-value) between the two variables. The correlation coefficient is statistically not substantially different from zero since p>0.05. The frequency of internet shopping rises with each percentage point that a product's price drops, but only slightly.

Table 4: Correlation between Price/Offers and Frequency of Online Purchase

Karl Pearson's Correlation		
Variable factor of price/offers influencing the frequency of online purchase		
	Variable Factor - Price/Offers	**Frequency of Online Purchase**
Pearson Correlation	1	-.061
Sig. (2-tailed)		.208
N	423	423
Pearson Correlation	-.061	1
Sig. (2-tailed)	.208	
N	423	423

Table 5 suggests that Pearson's correlation was used to evaluate the association between the frequency of online shoppers' purchases and the quality of the products. The test reveals that there was a negative relationship between respondents from the sample population's frequency of internet purchasing and quality. The Pearson correlation coefficient, or "r," has a value of -0.087. Additionally, there is a 0.074 statistical significance (p-value) between the two variables. The correlation coefficient is determined to be statistically insignificantly different from zero since p>0.05.

Table 5: Correlation between Quality and Frequency of Online Purchase

Karl Pearson's Correlation		
Variable Factor of Quality influencing theFrequency of Online Purchase		
	Variable Factor -Quality	**Frequency of Online Purchase**
Pearson Correlation	1	-.087
Sig. (2-tailed)		.074
N	423	423
Pearson Correlation	-.087	1
Sig. (2-tailed)	.074	
N	423	423

The researcher suggests analysing the Tests of Between-Subjects Effects table to see if there is a statistically significant interaction effect. In a two-way ANOVA, the interaction effect is shown as the product of the two independent variables. In this analysis, the interaction impact is denoted as "Active_Social_Media * Adverts_Influence". The "Active_Social_Media * Adverts_Influence" row in the Tests of Between-Subjects Effects table will therefore be interpreted by the researcher as shown below.

Table 6: Two-way ANOVA between Frequency of Online Visit and Advertisements Influencing Frequency of Online Purchases

Tests of Between-Subjects Effects				
Dependent Variable: Frequency of online purchase				
Source	**df**	**Mean Square**	**F**	**Sig.**
Active_Social_Media	2	1.817	2.0020	0.1360
Adverts_Influence	1	0.16	0.1760	0.6750
Active_Social_Media Adverts_Influence	2	0.823	0.9070	0.4050

The interaction effect's significance value, or p-value, is shown in Table 6's "Sig." column. The observation indicates that the interaction effect's p-value is.405 (p =.405). Since this is greater than.05 and does not fulfil p <.05, the interaction effect is statistically insignificant. This suggests that there is no direct relationship between the frequency of online purchases and social media activity. Therefore, it can be said that there is an interaction between them that is statistically insignificant.

V. CONCLUSION

Mostly in affluent economies, DT research has been conducted. In rising economies like India, these preexisting conclusions from industrialised economies could not hold true. The lack of particular intermediaries, regulatory structures, and contract-enforcing tools and methods results in structural and system level ambiguities or vacuums in emerging markets. These components present a range of risks and difficulties for companies that are honing their digital technology-based business models. These components could lead to particular conclusions about why companies use DT in developing nations. On the other hand, broad conclusions from the second and third empirical research apply to all settings and businesses that have used DT. The research setting for this study of DT-engaged enterprises in India consists of the following components.

REFERENCES

[1] Trisnawaty, N. W., Raharjo, T., Hardian, B., & Prasetyo, A. (2021, April). Success criteria and factor for IT project application implementation in digital transformation era: A case study financial sector industry. In *2021 IEEE International IOT, Electronics and Mechatronics Conference (IEMTRONICS)* (pp. 1-7). IEEE. https://doi.org/10.1109/IEMTRONICS52119.2021.9422578

[2] Chanias, S. (2017). Mastering digital transformation: the path of a financial services provider towards a digital transformation strategy. Twenty-Fifth European Conference on Information Systems (ECIS), Guimarães, Portugal, 2017.

[3] Balakrishnan, R., & Das, S. (2020). How do firms reorganize to implement digital transformation?. *Strategic Change*, *29*(5), 531-541. https://doi.org/10.1002/jsc.2362

[4] Mäkinen, T. (2017). Strategizing for digital transformation: a case study of digital transformation process in the construction industry.

[5] Sánchez, M. A., & Zuntini, J. I. (2018). Organizational readiness for the digital transformation: a case study research. *Revista Gestão & Tecnologia, 18*(2), 70-99.

[6] Wolf, M., Semm, A., & Erfurth, C. (2018). Digital transformation in companies–challenges and success factors. In *Innovations for Community Services: 18th International Conference, I4CS 2018, Žilina, Slovakia, June 18-20, 2018, Proceedings* (pp. 178-193). Springer International Publishing. https://doi.org/10.1007/978-3-319-93408-2_13

[7] Cui, J., Yan, C., & Hong, A. N. H. (2022). Tencent's Corporate Strategic Organizational Digital Management and Digital Transformation: A Case Study. *Journal of Business and Social Sciences*, *2022*.

[8] Kutnjak, A., Pihiri, I., & Furjan, M. T. (2019, May). Digital transformation case studies across industries–literature review. In *2019 42nd International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO)* (pp. 1293-1298). IEEE.

[9] Vukšić, V. B., Ivančić, L., & Vugec, D. S. (2018). A preliminary literature review of digital transformation case studies. *International Journal of Computer and Information Engineering*, *12*(9), 737-742.

[10] Rêgo, B. S., Jayantilal, S., Ferreira, J. J., & Carayannis, E. G. (2021). Digital transformation and strategic management: A systematic review of the literature. *Journal of the Knowledge Economy*, *13*, 3195–3222. https://doi.org/10.1007/s13132-021-00853-3

[11] Nicolás-Agustín, Á., Jiménez-Jiménez, D., & Maeso-Fernandez, F. (2022). The role of human resource practices in the implementation of digital transformation. *International Journal of Manpower*, *43*(2), 395-410. https://doi.org/10.1108/IJM-03-2021-0176

[12] Albukhitan, S. (2020). Developing digital transformation strategy for manufacturing. *Procedia computer science*, *170*, 664-671. https://doi.org/10.1016/j.procs.2020.03.173

[13] Cichosz, M., Wallenburg, C. M., & Knemeyer, A. M. (2020). Digital transformation at logistics service providers: barriers, success factors and leading practices. *The International Journal of Logistics Management*, *31*(2), 209-238. https://doi.org/10.1108/IJLM-08-2019-0229

[14] Susanto, P. C., Ali, H., Sawitri, N. N., & Widyastuti, T. (2023). Strategic Management: Concept, Implementation, and Indicators of Success (Literature Review). *Siber Journal of Advanced Multidisciplinary*, *1*(2), 44-54. https://doi.org/10.38035/sjam.v1i2.21

[15] Steiber, A., Alänge, S., Ghosh, S., & Goncalves, D. (2021). Digital transformation of industrial firms: an innovation diffusion perspective. *European Journal of Innovation Management*, *24*(3), 799-819. https://doi.org/10.1108/EJIM-01-2020-0018

[16] Vogelsang, K., Liere-Netheler, K., Packmohr, S., & Hoppe, U. (2018). Success factors for fostering a digital transformation in manufacturing companies. *Journal of enterprise transformation*, *8*(1-2), 121-142. https://doi.org/10.1080/19488289.2019.1578839

[17] Adama, H. E., & Okeke, C. D. (2024). Digital transformation as a catalyst for business model innovation: A critical review of impact and implementation strategies. *Magna Scientia Advanced Research and Reviews*, *10*(02), 256-264. https://doi.org/10.30574/msarr.2024.10.2.0066

[18] Fischer, M., Imgrund, F., Janiesch, C., & Winkelmann, A. (2020). Strategy archetypes for digital transformation: Defining meta objectives using business process management. *Information & Management*, *57*(5), 103262. https://doi.org/10.1016/j.im.2019.103262