

Impact of E-commerce Transformations on Digital Entrepreneurship: Evidence from Chennai DistrictShereen.A¹,

Research Scholar, IBMC, Mangalayatan University, Aligarh

Dr. Rajeev Sharma²,

Professor, IBMC, Mangalayatan University, Aligarh

Abstract:

This research explores into the progressing landscape of digital entrepreneurship influenced by key shifts in e-commerce in Chennai city. This study investigates four independent variables—global expansion, social responsibility focusing on eco-friendly packaging, AI-driven automation and customer experience optimization, assessing their levels and influence on digital entrepreneurship as the dependent variable. The analysis measures the prevalence of e-commerce trends, discerning demographic differences in digital entrepreneurship, assessing the relationship between e-commerce shifts and digital entrepreneurship, analyzing the influence of these shifts and proposing strategies to strengthen businesses in the digital entrepreneurship domain.

By examining these factors, this study seeks to provide insights into the dynamic interplay between e-commerce changes and offering practical recommendations for businesses to thrive in this progressing landscape.

Keywords: AI- Driven automation, Digital Entrepreneurship, e-Commerce Shifts.

1. INTRODUCTION

Digital transformation is the process of drift away from manual processes towards customer-centric and technology-focused models[1]. In essence, it involves leveraging technology, online platforms, and digital tools to create, develop, and manage a business. Digital entrepreneurs harness the power of the internet to reach a global audience, offering products or services that cater to evolving market demands[2]. Digital technology continues to be the core of the e-commerce industry and has employed its astounding capabilities to allow sellers to connect with their customers through the web and mobile platforms[3]. Now-a-days the global markets are more dynamic, more competitive, complex and digital. The growth of digital economy has made people more aware of digital products and services. The success of modern corporate activities depends on business models. Many businesses are successful due to digitalization of business in economic, financial and customer satisfaction. Digital businesses depend on modern technology to grow. Application of digital technology to existing business model reinvent business model, transform business products and create new value by innovating products and ideas and immense connection with people[4].

Entrepreneurs can build and manage their businesses from anywhere by eliminating the need for a fixed physical location. This not only reduces overhead costs but also provides the freedom to choose the most conducive environment for creativity and productivity[5]. Industries heavily rely on modern-day digital engineering as it allows organisations to revamp their processes, systems and operations. According to a report by Grand View Research, in 2022, the worldwide digital transformation market was assessed to be \$731.13 billion and it is projected to experience a compound annual growth rate (CAGR) of 26.7% from 2023 to 2030[6]. Therefore, the success of modern businesses relies on digitalization, fostering innovation, and creating new value. The global digital transformation market is rapidly growing, emphasizing the importance of embracing digital technology for sustained industry growth and innovation.

2. NEED FOR THE STUDY

It is crucial to research how changes in e-commerce affect digital entrepreneurship in the rapidly evolving business climate of today. These studies provide priceless insights into the forces reshaping the digital marketplace, enabling business owners to successfully negotiate the challenges and capture new possibilities. Through an analysis of these changes, entrepreneurs can discern patterns in customer behavior, technical breakthroughs and market demands. This allows them to modify their business models and tactics appropriately. Comprehending the influence of electronic commerce on digital entrepreneurship is also essential for refining advertising strategies, improving client satisfaction and minimizing potential risks like heightened rivalry and security hacking. In addition, this information helps legislators understand what rules are necessary to protect consumers, promote innovation and maintain fair competition in the digital market. In the long run, understanding how shifts in e-commerce influence digital entrepreneurship is essential for maintaining competitiveness, encouraging expansion and advancing the digital economy as a whole.

3. SCOPE OF THE STUDY

This research would explore how e-commerce influenced entrepreneurship, including how new business models have emerged, how marketing tactics have changed and how cutting-edge technologies have been adopted to take advantage of changing market conditions. It would also look at the potential and difficulties faced by digital entrepreneurs in adjusting to these changes, such as the requirement to deal with cybersecurity issues, handle increased competition, and adhere to changing legislation. Furthermore, the scope includes figuring out how changes in e-commerce will affect various industries and geographical areas as well as possible socioeconomic consequences on employment, innovation, and economic expansion. Overall, this study's scope includes an in-depth examination of the complex relationship between developments in e-commerce and digital entrepreneurship, with the goal of offering insightful information to researchers, policymakers, business owners and other players in the digital ecosystem.

4. OBJECTIVES OF THE STUDY

- To measure the level of factors relating to e-Commerce trends.
- To determine the differences between demographic factors with Digital Entrepreneurship.
- To measure the relationship between e-Commerce shifts with Digital Entrepreneurship.
- To analyse the influence of e-Commerce shifts on Digital Entrepreneurship.
- To provide suggestions for enhancing business in Digital Entrepreneurship.

5. IMPORTANCE OF THE STUDY

It is crucial to research how developments in e-commerce influence digital entrepreneurs. It assists them in staying updated of consumer preferences and online purchasing behavior. This study helps businesses expand by presenting them with new internet business strategies. Understanding these modifications additionally facilitates employment growth and uplifts little enterprises. It also provides governments with ideas for regulations that support the success of entrepreneurs. Taking everything considered, this research acts as a kind of guideline for digital entrepreneurs, demonstrating to them how to adjust, succeed and add value to the global economy in the current online marketplace.

6. STATEMENT OF RESEARCH PROBLEM

Studying how shifts in online shopping influence individuals who launch internet-based businesses is the research challenge. This aims in comprehending how new technologies and internet shopping affect business owners. This research studies the issues such as how these changes affect entrepreneurs, what obstacles they face, and what makes them successful. By providing answers to these queries, results may assist policymakers and business owners in better understanding the digital marketplace.

7. RESEARCH METHODOLOGY

In the present study, a care has been taken in selection of the Research Design, Selection of the Sample Size, Preparation of Questionnaire and Method of Data Collection which includes both primary and secondary data. The research design adopted for this research was Descriptive Research Design, since it helps in describing the characteristics of the population or phenomenon studied.

The method of collecting the data for this study, primary data was through distribution of questionnaires to the respondents. A well-structured questionnaire was employed to 224 respondents through google forms in Chennai city to generate data for further study. All the 224 respondents have responded. For the circulation of questionnaire, simple random sampling technique from probability sampling has been used. It represents each member of the population has an equal chance of being selected and selections are made randomly. Probability sampling techniques are essential in ensuring that the sample accurately represents the population from which it is drawn. This approach allows researchers to make valid statistical inferences about the entire population based on the characteristics observed in the sample.

The research questionnaire is self-developed questionnaire and it comprises of two sections. The first section comprises of demographic profile of the respondents comprising of Gender, Age, Marital Status and Profession. The latter section comprises of subject matter for the research which is divided into four conceptual dimensions, namely Global expansion, Social responsibility, AI driven automation, Customer experience optimization and Digital Entrepreneurship. Apart from primary data, secondary data have been collected by reviewing and analyzing various research articles and journals.

8. REVIEW OF LITERATURE

Amadi Lawrence and Obele Joseph (2023) investigated how digital entrepreneurship impacts SMEs' sustainable growth. It was found that website, email, and social media services provided by entrepreneurs significantly predict factors like customer satisfaction, market share, and profitability growth. These results highlight the crucial role of digital platforms in driving sustainable business growth for SMEs in Nigeria.

Sachin Modgil , Yogesh K. Dwivedi , Nripendra P. Rana , Shivam Gupta and Sachin Kamble (2022) have analysed in their paper that the diffusion of innovation theory to explore Covid-19-induced digital entrepreneurship opportunities, utilizing a three-layer thematic analysis approach. It identifies critical areas for digital entrepreneurship and provides insights for entrepreneurs navigating the shift to digital platforms during the pandemic. The study emphasizes the importance of innovative solutions for staying relevant in the digital space and meeting evolving customer needs.

Dragos Tohanean and Pablo Weiss (2019) have found that digital entrepreneurship, coupled with green business model innovation and the lean start-up approach, enables companies to stay competitive and innovative. Employing minimal viable products (MVPs) allows for rapid feedback and iterative development, crucial for meeting customer needs and regulatory requirements in green business. This approach helps reduce costs and ensures better alignment with target group requirements.

9. RESEARCH GAP

From the various articles it found that there is a need for further research on how shifts in e-commerce affect the strategies and techniques of digital entrepreneurship. This may involve looking at how the rapid growth of e-commerce platforms influences market dynamics, customer behavior, and regulatory frameworks; it could also look at how digital entrepreneurs adapt to grab new possibilities and get previous obstacles brought on by shifting e-commerce trends.

10. ANALYSIS AND INTERPRETATION

Pilot Study: A self-designed well-structured questionnaire possessing 25 statements of Likert-type scale comprising of relevant details of all dimensions – Global Expansion, Social Responsibility, AI Driven Automation, Customer experience optimization and Digital Entrepreneurship. The main motive of conducting Pilot study was to find the quality, reliability and feasibility of the questions to move forward for the main analysis of the study. The preliminary examination was conducted with 65 respondents. Snow Ball Sampling and Convenience Sampling method was chosen in order to collect the data from the specified number of respondents. The reliability test was conducted using IBM Statistical Package for Social Sciences (SPSS) Version 23. In this study, Cronbach's Alpha co-efficient of reliability was derived from the primary data collected for the main analysis and the values are as follows:

Table 1.1: Reliability Analysis for the Main Study

S.NO	Particulars	Cronbach's Value
1	Pilot Study with 65 respondents	0.962
2	Pilot Study with 224 respondents	0.976

Source: Primary Data

From the above Table 1.1, it is inferred that the Cronbach's alpha for the overall data is 0.976, which is greater than the value derived during pilot study (0.962). As a result, this shows that the data collected for the main study is reliable to go in for further analysis.

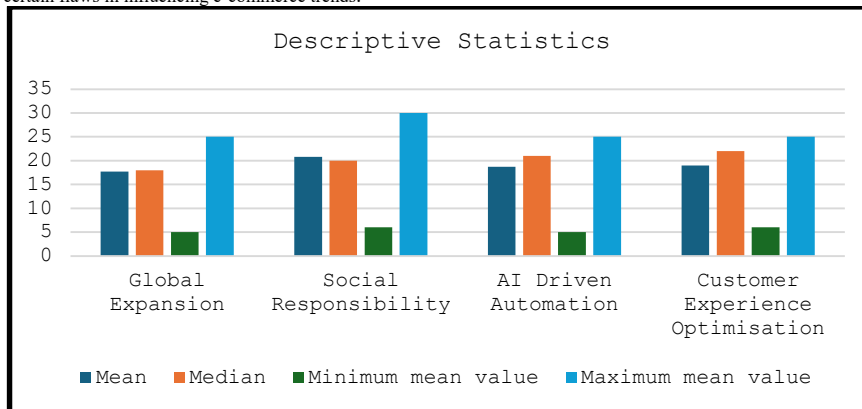
Descriptive Analysis: Analyse the factors of e-Commerce Trends

Table 1.2 Descriptive Statistics

Particulars	Global Expansion	Social Responsibility	AI Driven Automation	Customer Experience Optimisation
Mean	17.72	20.81	18.71	19
Median	18	20	21	22
Minimum mean value	5	6	5	6
Maximum mean value	25	30	25	25

Source: Primary Data

To analyse the conceptual dimensions of e-commerce trends namely; Global Expansion, Social Responsibility, AI Driven Automation and Customer Experience Optimisation, Descriptive Statistics including Mean, Median, Minimum and Maximum mean value has been conducted. From the Table 1.2, the Mean value compared with Median for the factors Global Expansion (17.72 and 18), Social Responsibility (20.81 and 20), AI Driven Automation (18.71 and 21) and Customer Experience Optimisation (19 and 22) are more or less equal, which proves that the factors have influence on the e-commerce. Taking Maximum mean value for the factors Global Expansion (25), Social Responsibility (30), AI Driven Automation (25) and Customer Experience Optimisation (25), proves that there is a maximum influence of factors on e-commerce trends. But while taking Minimum mean value into consideration for the conceptual dimensions Global Expansion (5), Social Responsibility (6), AI Driven Automation (5) and Customer Experience Optimisation (6) proves that there the factors suffers with certain flaws in influencing e-commerce trends.



Source: Primary Data

Analysis of Variance: Demographic Variable and Digital Entrepreneurship

H₁: Digital entrepreneurship does not have a measurable impact on profit generation.

Table 1.3 ANOVA between Profitable e-commerce with Digital Entrepreneurship

Particulars	Mean Value	F-Statistics	Sig
Profitable e-commerce with Digital Entrepreneurship	16.275	10.254	p<0.01

**Significant at 1% level

From the above table, it is inferred that the calculated mean value and F-Statistics (16.275 and 10.254) are significant at 1% level. Hence the null hypothesis is rejected and proved that e-commerce business is an innovative means to generate profit through digital entrepreneurship.

Source: Primary Data

Correlation: Relationship between e-Commerce trends with Digital Entrepreneurship

Table 1.4 Correlation between Conceptual Dimensions of e-Commerce with Digital Entrepreneurship

Independent variables	Pearson Correlation	Sig
Global Expansion	0.745	p<0.01
Social Responsibility	0.880	
AI Driven Automation	0.875	
Customer Experience Optimisation	0.873	

** Significant at 1% level

H₂: There is no significant relationship between global expansion and digital entrepreneurship.

From the Table 1.4, it is inferred that there is a positive correlation (0.745) between Global expansion and Digital Entrepreneurship at 1% significance level. Hence the null hypothesis is rejected.

H₃: There is no significant relationship between social responsibility and digital entrepreneurship.

Since the calculated p value (sig) is less than 0.01, the null hypothesis is rejected and the Pearson correlation value derived is 0.880 proves that there is a positive relationship between Social responsibilities of the e-commerce vendors with the digital entrepreneurship.

H₄: There is no significant relationship between AI Driven Automation and digital entrepreneurship.

From the table above, it is inferred that the null hypothesis is rejected at 1% level. The calculated Pearson correlation value 0.875 proves that there is a positive correlation between AI Driven Automation with Digital Entrepreneurship.

H₅: There is no significant relationship between Customer Experience Optimisation and digital entrepreneurship.

Since the sig value is less than 0.01, the null hypothesis is rejected. The Pearson correlation derived 0.873 denotes that there is positive impact of Optimisation of customer experience with Digital Entrepreneurship.

Regression: Influence of e-Commerce trends on Digital Entrepreneurship

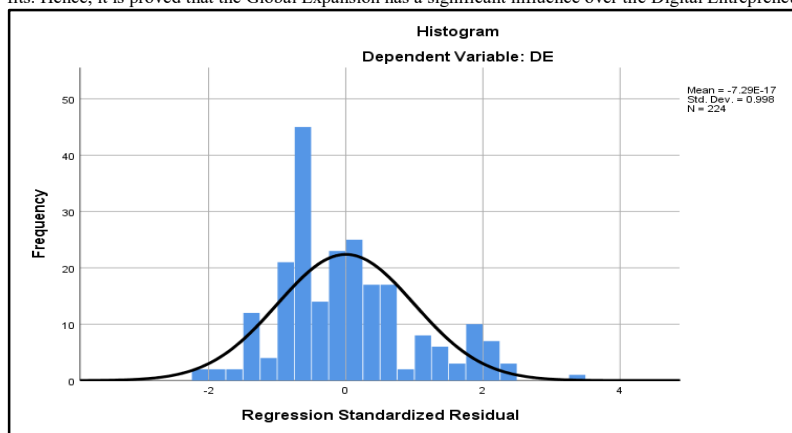
H₆: Global Expansion has no significant on Digital Entrepreneurship.

Table 1.5: Regression between Global Expansion and Digital Entrepreneurship

Independent variable	R ²	Adjusted R ²	Beta	F-Statistics
Global Expansion	0.554	0.552	0.873	276.163**

**Significant at 1% Level

From the above regression Table 1.5, the F value results to 276.163 at 1% level of significance, the null hypothesis is rejected. The regression model's coefficient of determination (R²) is 0.554 and its adjusted R² is 0.552, which seems to be healthy co-efficient. From the above values, it is concluded as a unit increase in factor Global Expansion will in turn improves factor Digital Entrepreneurship by 0.873 units at 1% level of significance. The following graph depicts a perfect bell shaped curve. Therefore, Regression model perfectly fits. Hence, it is proved that the Global Expansion has a significant influence over the Digital Entrepreneurship.



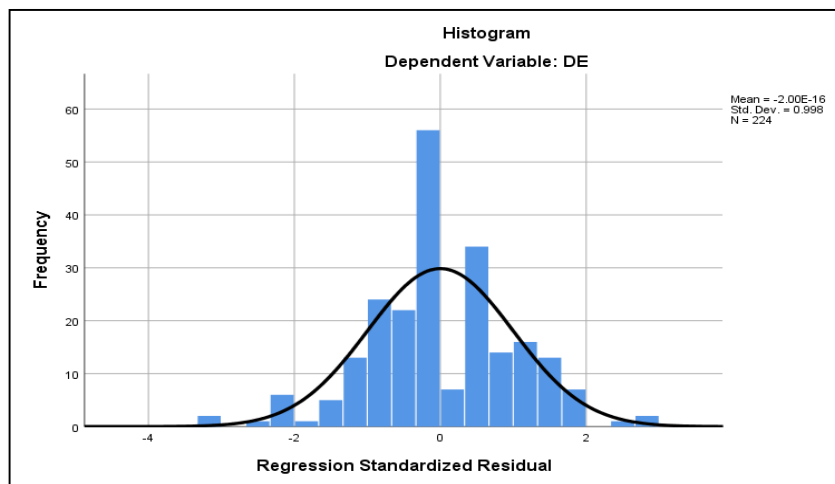
H₇: Social Responsibility of the e-commerce vendors has no significant on Digital Entrepreneurship.

Table 1.6: Regression between Social Responsibility and Digital Entrepreneurship

Independent variable	R ²	Adjusted R ²	Beta	F-Statistics
Social Responsibility	0.775	0.774	0.880	763.694**

**Significant at 1% Level

From the above regression Table 1.6, the F value results to 763.694 at 1% level of significance, the null hypothesis is rejected. The regression model's coefficient of determination (R²) is 0.775 and its adjusted R² is 0.774, which seems to be healthy co-efficient. From the above values, it is concluded as a unit increase in factor Social Responsibility on the part of e-commerce vendors will in turn improves factor Digital Entrepreneurship by 0.880 units at 1% level of significance. The following graph depicts a perfect bell shaped curve. Therefore, Regression model perfectly fits. Hence, it is proved that the Social Responsibility has a significant influence over the Digital Entrepreneurship.



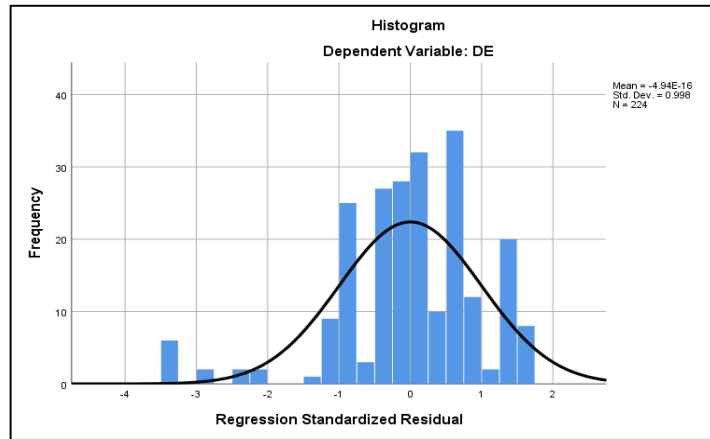
H₈: AI Driven Automation has no significant on Digital Entrepreneurship.

Table 1.7: Regression between AI Driven Automation and Digital Entrepreneurship

Independent variable	R ²	Adjusted R ²	Beta	F-Statistics
AI Driven Automation	0.765	0.764	0.875	721.765**

**Significant at 1% Level

From the above regression Table 1.7, the F value results to 721.765 at 1% level of significance, the null hypothesis is rejected. The regression model's coefficient of determination (R^2) is 0.765 and its adjusted R^2 is 0.764, which seems to be healthy co-efficient. From the above values, it is concluded as a unit increase in factor AI Driven Automation will in turn improves factor Digital Entrepreneurship by 0.875 units at 1% level of significance. The following graph depicts a perfect bell shaped curve. Therefore, Regression model perfectly fits. Hence, it is proved that the AI Driven Automation has a significant influence over the Digital Entrepreneurship.



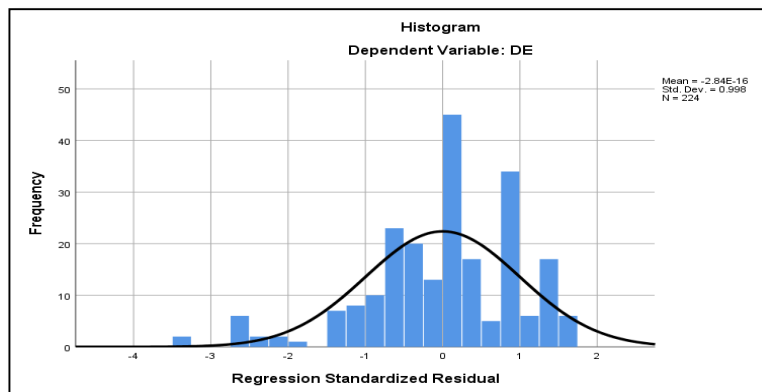
H₀: Customer Experience Optimisation has no significant on Digital Entrepreneurship.

Table 1.8: Regression between Customer Experience Optimisation and Digital Entrepreneurship

Independent variable	R ²	Adjusted R ²	Beta	F-Statistics
Customer Experience Optimisation	0.763	0.762	0.873	714.380**

**Significant at 1% Level

From the above regression Table 1.8, the F value results to 714.380 at 1% level of significance, the null hypothesis is rejected. The regression model's coefficient of determination (R^2) is 0.763 and its adjusted R^2 is 0.762, which seems to be healthy co-efficient. From the above values, it is concluded as a unit increase in factor Customer Experience Optimisation will in turn improves factor Digital Entrepreneurship by 0.873 units at 1% level of significance. The following graph depicts a perfect bell shaped curve. Therefore, Regression model perfectly fits. Hence, it is proved that the Customer Experience Optimisation has a significant influence over the Digital Entrepreneurship.



11. SUGGESTION AND CONCLUSION

In summary, this study examined how shifts in e-commerce have influenced the field of digital entrepreneurship, focusing on four major areas: Social responsibility, AI-driven automation, Global expansion, and customer experience optimization. After an in-depth study, it became evident that these variables had significant effects on digital entrepreneurship and that they were all positively correlated with and influenced by entrepreneurial activity in the digital sphere. The results emphasize how important it is to promote innovation and digitization in response to shifting market conditions. Businesses can adapt, succeed and help the digital economy expand by knowing how e-commerce trends and digital entrepreneurship intersect. In an effort to help organizations effectively go through the ever-changing digital world and promote sustainability, innovation and competitiveness in the digital marketplace, this study offers insightful analysis and suggestions. In the ever-changing landscape of digital entrepreneurship, flexibility, innovation and speed are essential. In order to effectively take advantage of emerging trends, entrepreneurs need to be prepared to swiftly modify their plans in response to shifts in market conditions. They also need to be up to date on industry advancements and developing technology. Cultivating an attitude of continuous learning and adaptation guarantees resilience and responsiveness to both opportunities and obstacles. Developing an environment which encourages experimentation and creativity empowers teams to generate innovative ideas and stay on the cutting edge. Entrepreneurs may position their businesses for growth and sustainability by recognizing that e-commerce and digital entrepreneurship are interconnected. Emerging entrepreneurs may effectively address the challenges of the digital economy and leave an imprint on future generations by combining agility, innovation and a dedication to excellence in their respective fields.

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