



A Study Of Digital Transformation And Its Impact Of Business And Management

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Abstract

The development of new business models, procedures, software, and systems through the use of technology results in increased productivity, more lucrative revenue, and a stronger competitive advantage. Businesses achieve this by modernising their internal processes and business models, fostering employee productivity and innovation, and personalising their consumer interactions.

The implementation of digital transformation is now regarded the norm and a key element of a company's business transformation. Radical changes have been made to how businesses operate. The research hasn't looked at the full effects of key forerunners to the digital revolution on the performance of manufacturing firms, nevertheless. The study shows how digital transformation affects business performance and seeks to pinpoint the fundamental causes of the change. This article is innovative in that it examines digitalization, digital transformation, and digital technologies all at once while taking into account the firm's most developed functional areas.

The transition to a digital world is already underway. While Indian firms only adopt digitalization to varied degrees, Indian consumers are embracing it to an ever-greater extent. Indian firms must adapt to this new reality as international corporations depend more and more on disruptive technologies like cloud computing, 5G networks, blockchain, internet marketing, and 3D printing to stay competitive on a global level.

Keywords: Digital Transformation, Productivity, Creativity, Blockchain, Internet marketing

Introduction

Digital transformation makes use of the following technologies: cloud, mobile, social, big data analysis, internet of things (including industrial internet of things), and cognitive science. Tiered approaches and a strategic perspective are required. Technology The synergy effect of interactions among the digital transformation's components is exploited in their integration.

The digital firm architecture must take into account big data, cloud, mobile, and social technology. These businesses outperform their rivals in terms of efficiency, revenue, and market valuation. The fourth quarter of 2020 is expected to bring in more than \$100 billion in revenue for highly digitalized companies like Amazon.com Inc. and Apple Inc. because to the global pandemic.

Businesses across a wide range of industries are evolving to stay competitive. The firms have incorporated a variety of technologies, including IoT platforms, cloud computing, augmented reality, customer profiling, data analytics, and improved human-machine interfaces. The companies' main goals are the total digitalization and integration of every component into the digital environment.

Given that it is an essential tool for fostering innovation and boosting revenues, businesses are continuously working to become more digital. They do, however, encounter substantial obstacles, especially in industrial organisations, such as the increasing importance of knowledge-intensive operations and the complexity that results from this fast shift. Digitalization has altered how operations are managed and how employees connect with the outside world in manufacturing organisations. Additionally, it suggests modifications to their customer relations strategy. A small number of studies have also simply focused on the digital transformation. Therefore, it is crucial to conduct research on how manufacturing companies are going digital.

Due to the changing economic environment, businesses are increasingly adopting new technologies and digitally reinventing themselves in order to compete fiercely. Such a digital revolution must have an impact on their business's profitability and efficiency. This study aims to evaluate how the digital transformation has affected a small number of Indian listed enterprises.

The existing body of literature gains two important notions from this study. The study adds to the body of knowledge by focusing on digital transformation in industrial organisations and offers a list of key factors that lead to the emergence of this phenomenon. The study also has the ability to offer managers useful advice on how to establish and maintain a position in the digital market and gain a competitive edge by experimentally establishing the influence of the antecedents on digital transformation and company performance as a result.

Data is converted to a digital (computer-readable) representation by digitization. The term "digitization" refers to the simple analog-to-digital conversion of already-existing information. It is simply encoded in a digital format; the data itself is not altered. When digitised information is used to streamline operations and improve accessibility, digitization can increase efficiency.

According to Wikipedia (2017), "Digitization is of crucial importance for data processing, storage, and transmission because it allows information of all types and formats to be carried with the same efficiency and also mixed."

Digital Transformation on Employees and Customers

Digitization affects the limits of production, distribution, and consumption, as well as how businesses run and how people labour. As a result of these advancements, businesses and employees will need to make adjustments to how work is organised, how jobs are allocated, and how talents are valued. Opportunities will result from the introduction of novel products, processes, and techniques. In terms of the overall effects on the job market, the worldwide pandemic has now taken front stage, forcing telecommuting for managers and personnel in digital enterprises.

The labour market's reaction to digitization is seen in the appearance of fresh talent requirements for the accomplishment of fresh engagements. The employees need to receive fresh training and requalification, or they need to be replaced by others who already have the necessary qualifications. As a result of digitization, both new jobs and positions that are no longer needed are generated. As information and communication technology (ICT) is employed increasingly often, the employment environment is changing. Robotics, data analysis, artificial intelligence, 3D printing, cloud computing, and mobile technology are some of the new digital innovations that are having an influence. The globe has, however, previously experienced technical improvements. Examples from the past include the impact of new technologies like electricity and steam engines on the employment landscape. The way people interact while working has a big impact on how work gets distributed. Businesses employ a large number of individuals. With the introduction of online work platforms, which act as the only means of online intermediation between parties, this line of work is evolving and does not require additional individuals or organisations.

Importance of the Study:

The Fourth Industrial Revolution has made adopting digital technologies a must for enterprises. The McKinsey Global Institute Report, 2019, states that businesses that innovate and digitise swiftly will be better positioned to benefit from India's sizable, connected market. Technology-enabled business models may become widely adopted over the course of the next 10 years due to rapidly advancing technology and falling data prices. Therefore, the study tries to put a number on the advantages for companies already moving towards digitization.

The provision of services of the same high quality via cloud services and mobile applications at any time through all access channels is also a part of digital transformation. Companies that offer services (such as cloud services, consulting services, outsourced services, IT services, and others) must complete the entire cycle, starting with requirements and needs analysis, creating the architecture, moving through product installation and configuration, and ending with the development of business processes that adhere to the requirements of the clients.

Research Question

RQ1: How has the literature on digitization changed in connection to management, marketing, finance, and accounting, among other aspects of the firm?

RQ2: What are the main research areas related to digitalization in the management, marketing, finance, and accounting departments of the company?

Research Methodology

The various ratios and data analysis tools (discussed below) were initially computed using the annual reports published on the company's official website. In order to determine the effect of each of these seven variables on the Market-Induced Solvency Ratio, a measure of a firm's performance and solvency, a regression analysis was then conducted.

1. Going Concern: The phrase "going concern" is used most commonly in corporate finance studies. The assumption that a company will remain in operation after the current accounting period applies if its total assets exceed its total liabilities. So $\text{Total Assets} / \text{Total Debts}$ is the formula for calculating the Going Concern Index (GCI).

2. Current Ratio: A key metric for determining a company's short-term liquidity, the current ratio is considered to be a fundamental measure. The current ratio is calculated using $\text{Current Assets} / \text{Current Liabilities}$ as the formula.

3. Altman's Z Score: In 1983, as businesses started implementing digital technology, Altman observed that the traditional financial control techniques of current ratio, stock turnover, and other ratios were woefully insufficient in aiding managers in solvency management and in determining the precise fiscal health status of a firm. The short-term liquidity position of a company concern was also more important to traditional methodologies than medium- or long-term liquidity. In light of this, he suggested using the Discriminate Analysis Technique of Z Score as a more precise way to assess a company's solvency. A complete indicator of the financial health of the company, the Z value is determined utilising information from internal financial management systems as well as market-based valuations. The accuracy ratio of the Z Score in predicting a firm's solvency was shown to range from 87% to 100% in a 2019 study by Pai.

4. Enyi's Relative Solvency Ratio (RSR): In order to assess a company's working capital requirements, Enyi developed the Relative Solvency Ratio (RSR), a tool for firm-based discriminant analysis. The Relative Solvency Ratio evaluates the organization's relative liquidity and operational scalability while comparing the Actual Working Capital of the company with the Required Working Capital. Pai's study from the year 2019 discovered that the RSR model had a prediction rate of 42% to 96%.

5. Operational Breakeven Point (OpBEP): The idea underlying Enyi's Relative Solvency Ratio is based on operational breakeven point. The Operational Breakeven Point is the point at which the total cumulative production, marketing, and administrative costs and losses for the learning period equal the total cumulative contribution margin on recovered production outputs (Enyi, 2005). In other terms, it is the point at which the company has made enough money to cover all immediately related costs. Calculating the OpBEP involves counting the number of production cycles. These cycles are frequently evaluated in terms of weeks, as in the present study.

6. Mark-up Ratio: This factor is important to consider when figuring out the operational break-even point. The management's ability to operate the business successfully and set prices that enable cost recovery and profit maximisation is demonstrated by the mark-up ratio. Calculating the mark-up ratio involves dividing the Profit before Tax by the Total Operating Cost.

7. Digital Transformation Gains Index (DTGI): The study employs the Digital Transformation Gains Index to quantify the benefits that an organisation experiences as a result of integrating digital technology into its processes. When a business goes digital, both its operational effectiveness and profitability are affected. The DTGI is therefore calculated by taking into account changes in both the capital turnover ratio and return on capital employed. The difference between the pre- and post-digital features is determined by calculating gains.

Sample and data collection procedure

A self-administered questionnaire was used to collect data from experts involved in the manufacturing sector's digital transformation in order to validate the study model. In this experiment, judgemental sampling was used as the sample approach. It is common to use the phrase "subjective/selective sampling". The researcher's judgement in deciding on the study's target population is a key component of this sampling approach.

Data Analysis and Interpretation

Ho1: The Going Concern Index does not significantly predict a company's lifetime.

Ho2: A company's current ratio is not a good predictor of its ability to maintain its financial stability.

Table 1 Descriptive Statistics

	Mean	Std. Deviation	N
MISR	3.142	12.3654	12
RSR	1.07	.000	12
Z Score	1.35	.729	12
C Ratio	1.5324	.54576	12
GCI	2.4278	.74532	12
DTGI	13.0712	22.342587	12
Op BEP	3.8742	1.35476	12
Mark-up Ratio	.372574	.078596	12

Table 2 Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.527a	.315	-1.172	17.41758	3.452
a. Predictors: (Constant), MarkUpRatio, DTGI, Z Score, GCI, OpBEP, C Ratio					
b. Dependent Variable: MISR					

Table 3 ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	532.412	12	117.742	.319	.689b
	Residual	572.752	4	352.754		
	Total	1341.074	8			
a. Dependent Variable: MISR						
b. Predictors: (Constant), MarkUpRatio, DTGI, Z Score, GCI, OpBEP, C Ratio						

Analysis and Findings

Table 1 of the descriptive data displays the mean Market Induced Solvency Ratio for the companies included in the study, which was 3.14. The mean Z Score value reported a value of 1.7 and shows that the firms had a moderate health state. The mean Z Score value is based on all five characteristics of liquidity, profitability, productivity, leverage, and operational efficiency. It was discovered that the mean Relative Solvency Ratio score was 1, indicating that all nine of

the study's companies had excellent financial health. The average current ratios for all companies were found to be 1.5, which is a bit under the ideal of 2:1. According to the mean Going Concern Index of 2.42, all of the enterprises under examination have a decent chance of surviving past the current accounting period. The mean Digital Transformation Gain Index of 13.07 indicates that some of the companies under study have implemented one or more forms of digital transformation, despite the significant standard deviation suggesting that other organisations are still lagging behind others in the adoption of digitization. To put it another way, the businesses in question have managed to reach operational equilibrium at a low level, which in turn suggests effectiveness in the management of people, equipment, and a sensible pricing plan. It is thought that the mean operational breakeven point of 3.8 cycles is quite good. The average Markup Ratio of 23.9% demonstrates that operational cost recovery varies slightly from company to firm.

Regression Analysis

The results of the regression study provide important light on the relationships between the seven research variables and the Market Induced Solvency Ratio.

Since it solely evaluates the firm's ability to settle its debts using its readily accessible assets and disregards the market value of securities, the GCI value, which is not important, has an inverse relationship with the MISR. Additionally, it does not consider the company's long-term viability and only evaluates the going concern in the short term. Due to its emphasis on the short term, the Current Ratio is also of little significance. It is found that even the Z Score, which has an inverse connection with MISR, is unimportant. This demonstrates that, while taking into consideration the asset market valuation, Z Score is a crucial yet unreliable MISR indicator. The first three theories—that the Going Concern Index, the Current ratio, and Altman's Z Score are not significant indications of a firm's solvency—are not refuted as a result.

Because the Relative Solvency Ratio variable was left out of the final model, the study found that Enyi's Relative Solvency Ratio is not a useful indication of a firm's solvency. This is rather surprising considering how important adequate working cash is to the company's profitability and solvency. As a result, we are unable to demonstrate that Enyi's Relative Solvency Ratio is a poor predictor of a firm's solvency.

It is found that the operational breakeven point and the MISR are inversely related. This is caused by the negative correlation between a company's profitability and its operational breakeven point. As the operational breakeven point drops, the company's profitability rises. We are unable to rule out the possibility that the Operational Breakeven Point is not a significant indicator of the firm's operational competence, nevertheless.

We find a positive correlation between MISR and the Digital Transformation Gain Index. This shows that even while the DTGI value is not deemed to be significant, it has a positive effect on businesses' performance as they use digital technology. Therefore, we do not dispute the assertion that the Digital Transformation Gain Index cannot accurately represent the effects of digital transformation.

The Markup Ratio and MISR have been found to be positively associated, similar to the DTGI, with the higher the profitability ratio, the higher the business's solvency ratio. The ratio's predictive potential, however, was minimal because it solely considers internal operations and overlooks the company's stock market valuation. Its value isn't considered to be significant. As a result, we are unable to demonstrate that the markup ratio does not provide a useful indication of the company's long-term survival.

Conclusion

Digital transformation is more difficult than just automating operations; it also entails modifying company models, customer expectations, and the processes themselves. The digital firms provide value and generate revenue by connecting a wide range of systems, people, places, and things digitally. By creating a strategy and leveraging digital technologies, any company today has the ability to successfully position themselves for both their company and their industry. The potential that the digital transformation will uncover will allow for the next stage of the expansion of the national and international economies.

The digital transformation that the manufacturing sector is going through will alter the market's makeup. It is having a big impact on how producers produce and distribute items to the market. This study fills a knowledge gap about the causes of digital transformation and how it affects the manufacturing industry's financial performance.

There is no denying that, especially in the post-covid era, the phenomena of business digitalization is on the increase globally, with different companies embracing various disruptive technologies for accelerated sales and higher profitability. The study used dynamic measuring tools, such as the Z Score, Relative Solvency Ratio, Operational Break Even Point, and Digital Transformation Gains Index, to quantify the benefits of digitalization adoption for firms. The findings revealed that many Indian businesses have embraced the new technology and are reaping the benefits (as evidenced by high Digital Transformation Gains Index scores) in contrast to businesses that have chosen to remain neutral, even though the majority of the study's hypotheses were found to be unfounded.

By examining the elements that affect the adoption of digital transformation and the increased impact of those factors on organisational performance as a result of mediating effects, this study makes significant contributions. The study also recommends switching from the outmoded current ratio and acid test ratio approaches, which are no longer reliable in the era of online shopping, contactless transactions, and lightning-fast internet transactions, to creative performance rating measures.

Specific new digital technologies are put into use as a result of digital transformation. New computer technologies with strong scientific roots are emerging, including Big Data, Artificial Intelligence-based analysis and decision-making, Self-Learning techniques and algorithms, and many more.

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