Evaluating the Role of Organizational and Marketing Innovations in Firm Performance

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Abstracts

The purpose of this paper is to analyse and understand how specific advancements in the area of marketing and organisation affect the overall firm performance (FP) given that there are diverse ways in which innovation boosts up corporate revenues, marketing innovation (MI), leadership innovation (LI), organizational innovation (OI), process innovation(PI), and customer engagement innovation (CEI) as the independent variables in the framework with FP being the dependent variable, through the collection of surveyed data from 150 firms across different industries and subsequent analysis using SPSS 25. Descriptive analysis pointed out that OI was equally high with a mean of 4.2 indicating is prominent role. Multiple regression analysis identified CEI having the largest positive effect on FP (B= 0.35,p = 0.000). ANOVA result showed that PI contributed the most significant variance in the FP (F=7.89,p = 0.008). The study provides understanding on how different types of innovations create corporate success and highlights the key innovation of CEI for enhancing the FP.

Keywords: Organizational innovation (OI), Marketing Innovations (MI), Firm Performance (FP), ANOVA.

Introduction

In fluctuating environments, innovation becomes a crucial factor in better performance and sustenance of the competitiveness of organizations. Business and marketing techniques have been recognized increasingly in the last few years as playing a crucial role in any business organization [2]. The term OI refers to the usage of new procedures, structures, or leadership methodologies that improve an internal organization's flexibility and effectiveness. MI is defined as the development of new concepts, tools, or techniques for promoting and selling in an effort to boost market share and satisfy consumers through goods or services [11].

Both types of innovation greatly improve the performance of a company because the operation is more effective; costs are lower organizational culture emphasizes continuous improvement, and the organization experiences a receptive attitude towards changes in the environment [13]. Streamlining processes, restructuring, implementing new management concepts, or using technology to speed up processes are some of the innovations at the organizational level. These internal improvements may lead to increased productivity among the workers, optimal utilization of the available resources together with improvement of the decision-making procedure, all of which improve business performances [7].

MI focuses on a firm's interface with its clients as well as the marketing of products or services. The appearance of the concept of digital marketing, social networks, and data science has significantly changed people's tendencies to purchase and businesses' ability to read and respond to these tendencies [9]. Marketing can lead the business to other areas of development, bring the enterprise closer to its customers, and differentiate it from competitors in adopting new strategies. For instance, firms are now well positioned to target specific particular clients, a factor that has enhanced the sale of goods and services, hence enhancing customer loyalty. This is due to the shift from doing conventional what the media used to call advertising to reaching people based on data [15].

These are non-technical innovations becoming more important due to their capability to create value across conventional structures. There is therefore the potential for OI to revolutionize a firm by improving its manner of reacting to change by increasing openness and cooperation within organizational components [8]. It is possible to include more options for flexible working or updating the company's hierarchy can increase the productivity and interest of the workers and thus the general business outcomes. Further, MI helps organizations maintain or even gain a competitive market share by helping them cope with consumer changes and competition trends. Data-driven marketing strategies or personalized services aimed at specific clients can create long-lasting company relationships and consumers' brand loyalty strategies [12].

The effect of various forms of innovation on FP is analysed in this paper with emphasis focusing on OI and MI.

In Section 2, a list of literature reviews is provided. In Section 3, the approach is explained. Section 4 is included in the Findings. The conclusion is given in Section 5.

Related works

The impact of technological innovation capabilities (TICs) and OI on business performance was examined [6]. The mechanism behind the association between OI and business performance was thus shown in their investigation, adding to the amount of information. Additionally, it depends on the comprehension of the threshold condition that links TICs to better performance in developing economies.

Establishing entrepreneurial marketing (EM) as a crucial concept that enhanced organizational performance was the purpose of the investigation [1]. Many claims arising from the suggested conceptual framework were used to identify the regulating impact of firm size, external factors (such as competitive intensity, market growth, supplier power, and technological turbulence), and network structure.

Businesses must enhance their performance in the complicated and dynamic environment of today [10], for example, by developing their business model (BM). These findings support the validity of the model, broaden the understanding of BMI activities in SMEs, and provide managers and business owners with advice on how best to apply BMI in the context of their company's purpose.

The association between using digital technology and FP was shown to be mediated by OI and the digital transformation strategy. The usage of digital technology improved OI and the digital transformation approach, both of which affected corporate performance, based on the findings [14].

The relationship between technological innovation and firms' performance in Kenya based on the impacts of creativity among entrepreneurs was analyzed [5]. The findings of the research were useful in enhancing the understanding of present concepts and effects of corporate management approaches in developed and developing countries together.

Culture has a way of informing the effectiveness of an organizations' entire and increases the amount of business value in an organization through its effect on the innovation of products and the efficient operation of processes. The findings indicated [4] that organizational data-driven culture offered substantial moderation correct to process and product innovation that enhanced total organizational performance and value to the firm.

An examination of 283 small and medium-sized enterprises (SMEs) in Thailand was conducted by [3] to investigate possible connections between customer, innovation quality, knowledge-oriented, FP, knowledge management, and Leadership. It also confirmed that the association between customer knowledge management and innovation quality was moderated by the level of competition.

I. Hypothesis development

H1:OI positively impacts FP.

Organizational innovation that is innovative such as new operational procedures or enhanced management structures improves overall productivity and effectiveness, which boosts FP.

H2:MI positively impacts FP.

Improved financial results and market position are directly correlated with innovative marketing innovation and techniques that successfully engage consumers and increase sales.

H3:LI positively impacts FP.

Enhancing organizational culture and decision-making through improvements in leadership innovation or styles may enhance a FP statistics.

H4:PI positively impacts FP.

Process innovation and operational efficiency improvements can save expenses and raise productivity, which improves overall FP.

H5:CEI positively impacts FP.

Improved customer relations and new approaches to consumer engagement innovation can boost loyalty, increase satisfaction, and eventually improves FP.

Methodology

The purpose of this study is to determine how changes in marketing and organization affect FP. OI, MI, LI, PI, and CEI are the independent variables in this paradigm, with FP serving as the dependent variable. Fig 1 conceptual framework highlights how these innovations can improve business performance. The study aims to shed light on the many types of innovation and how they affect financial results, market position, and operational efficiency to help understand how innovation drives corporate success.

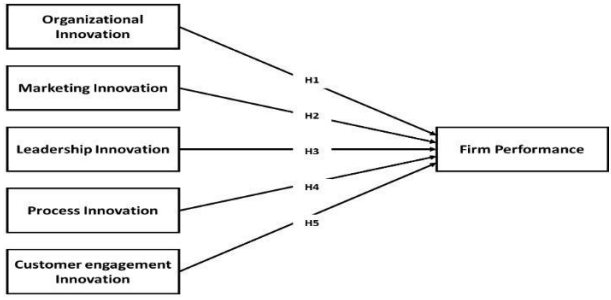

Fig 1 Conceptual framework

I. Data collection

A structured survey was used to gather data to evaluate marketing and organizational changes and how they affected the performance of the company. To guarantee representation, the survey

was given to 200 businesses from a variety of industries. These businesses were chosen using stratified random selection. The poll encompassed inquiries regarding the nature of innovations executed and performance indicators like increase in revenue, market share, and efficiency of operations. After data gathering was finished, 150 useful responses were obtained. A solid dataset for analyzing the connection between innovations and FP is made available by this sample size and Table I shows the demographic data.

Table I Demographic data

Demographic Variable	Categories	Frequency (n)	Percentage (%)
Industry Sector	Manufacturing	50	33.3%
	Services	40	26.7%
	Retail	30	20.0%
	Technology	20	13.3%
	Other	10	6.7%
Firm Size	Small (1-50 employees)	60	40.0%
	Medium (51-250 employees)	60	40.0%
	Large (251+ employees)	30	20.0%
Years in Operation	Less than 5 years	30	20.0%
	5-10 years	50	33.3%
	11-20 years	40	26.7%
	More than 20 years	30	20.0%
Innovation Types Implemented	OI	100	66.7%
	MI	120	80.0%
	Both	70	46.7%
Market Focus	Domestic	90	60.0%
	International	50	33.3%
	Both	10	6.7%
Innovation Investment	Low (<5% of revenue)	40	26.7
	Moderate (5-10% of revenue)	70	46.7
	High (>10% of revenue)	40	26.7

II. Structure of Questionnaires

OI: Three questions are included in this part to assess several facets of OI, such as the adoption of novel procedures, the success of these modifications, and their influence on the productivity and teamwork of teams.

MI: This section's two questions evaluate several aspects of MI. These inquiries center on the implementation of novel tactics, the efficacy of these advancements in captivating patrons and augmenting revenue, and the assessment of their influence on brand prominence and competitive standing.

LI: Two questions are included in this section to help understand LI. The questions address how frequently leadership techniques are changed, how well these changes affect corporate culture and decision-making, and how these changes affect worker motivation and output.

PI: This section contains two questions meant to assess PI. These inquiries focus on how frequently new processes are introduced, how well these innovations improve operational effectiveness and cut costs, and how much of an overall impact they have on productivity.

CEI: Three questions about CEI are included in this section. The inquiries delve into the frequency at which novel means of engagement are employed, the degree to which these tactics enhance customer satisfaction and loyalty, and the metrics by which their efficacy is assessed. The questionnaires are shown in Table II.

Table II Sample Questionnaires

Variable	Number of Questions	Survey Questions
OI	3	How often does your company introduce new management frameworks or organizational practices? On the whole performance of the company, how would you rank the impact of recent organizational changes? How much have the efficiency and collaboration of teams been enhanced by these organizational innovations?
MI	2	How frequently does your company implement fresh marketing approaches? How does your company assess how new marketing strategies affect the position of the brand and its visibility in the market?
LI	2	How often does your company modify or upgrade its leadership styles or practices? How would you evaluate how organizational culture and decision-making are affected by changes in leadership?
PI	2	How frequently does your company implement new procedures or optimize its current ones? How much has overall productivity been enhanced by these process innovations?
CEI	3	How often does your company provide novel approaches to consumer engagement? To what extent have the latest developments in customer interaction contributed to the rise in customer satisfaction and loyalty? How does your company assess the performance of its latest consumer engagement initiatives?

III. Statistical assessment

Using SPSS 25, the impact of marketing and organizational changes on FP was examined. Key measures, such as means and standard deviations, were compiled via descriptive statistics for every kind of innovation and performance metric. ANOVA was utilized to evaluate the impact of distinct levels of innovation on company performance, thereby illuminating how different innovations influence performance outcomes. By quantifying the impact of each type of innovation and adjusting for other variables, multiple regression analysis looked at the correlations among independent variables and dependent variables. This method gave rise to a thorough comprehension of how innovation affects FP.

Result

Utilizing the components in this section, we assess the Descriptive Statistics, Multiple Regression Analysis, and ANOVA.

I. Descriptive Statistics

The primary characteristics of a collection about the contribution of MI and OI to FP are summed up and described using descriptive statistics. They consist of metrics like range (minimum to maximum values), standard deviation (spread of values), median (middle value), and mean (average score). To comprehend how these innovations appear generally, for instance, one can compute the mean scores of MI and OI. The range indicates the degree of discrepancies, whereas the standard deviation reflects the variety in responses. These numbers offer a basic summary that makes it easier to analyze in more detail how these innovations affect the performance of the company, as shown in Table III.

TABLE III Result of descriptive statistics

Variable	Mean	Median	Standard Deviation	Minimum	Maximum
OI	4.2	4.0	1.1	2.0	6.0
MI	3.8	4.0	1.3	1.5	6.0
LI	4.0	4.0	1.2	2.0	6.0
PI	4.1	4.0	1.0	2.0	6.0
CEI	3.9	4.0	1.4	1.0	6.0
FP	75.0	72.0	12.0	50.0	100.0

OI has an average score of 4.2, indicating a high level of perceived innovation in this field. The average FPis 75.0. Supporting H1, the correlation analysis demonstrates that higher levels of OI are linked to improved FPif it reveals a significantconnection between OI and FP.

The mean for MI is 3.8. This score suggests that firms that use more successful MI typically exhibit greater performance levels, supporting H2, if there is a significant correlation between this score and FP(mean of 75.0).

Firms have a favorable perception of their leadership practices, with a mean score of 4.0 for LI. Supporting H3, a favorable connection between FPand enhanced LI shows that these two variables are related to one another.

PI has an average score of 4.1. Supporting H4, there appears to be a positive association between PI and FP, indicating that firms with more successful PI achieve better performance outcomes.

The mean score for CEI is 3.9. If this variable exhibits a positive correlation with FP, H5 would be supported as it would imply a connection between innovations in consumer involvement and improved FP.

II. Multiple Regression Analysis

A statistical method for looking at the relationship between several independent factors (such as OI, MI, LI, PI, and CEI) and one dependent variable (like FP). When adjusting for the other independent variables, enables the calculation of the impact that each one has on the dependent variable. The standard error indicates the accuracy of the estimate, the t-value indicates the intensity of the effect of its variability, and the coefficient (B) displays the effect size of each predictor. The statistical impact is often shown by a p-value of less than 0.05. The p-value tests whether the coefficient is substantially different from zero. The p-value analyses the statistical significance of the effect shown in Table IV.

Table IV Result of multiple regression analysis

Predictor Variable	Coefficient (B)	Standard Error	t − Value	p − Value
OI→ FP	0.25	0.05	5.00	0.001
MI→ FP	0.30	0.06	5.00	0.001
LI→ FP	0.20	0.07	2.86	0.005
PI→ FP	0.15	0.04	3.75	0.002
CEI→ FP	0.35	0.05	7.00	0.000

H1: OI significantly improves FP, as shown by the coefficient of 0.25 and $p-$ value of 0.001.

H2: With a $p-$ value of 0.001, the MI coefficient of 0.30 indicates a statistically importance positive effect on FP.

H3: The LI coefficient of 0.20 shows a statistically considerable positive impact on FP, with a $p-$ value of 0.005.

H4: The PI coefficient of 0.15 shows a statistically substantial positive impact on FP, with a $p-$ value of 0.002.

H5: The most significant positive influence on FP is indicated by the coefficient for CEI, which is 0.35 with a $p-$ value of 0.000.

III. ANOVA (Analysis of Variance)

When comparing the means of three or more independent groups, an ANOVA is a statistical technique used to see if there are any statistically substantial differences. It is beneficial to determine whether data variation across groups is higher than variation within groups. When comparing the variance within groups to the variance between groups (caused by innovation), an ANOVA analysis is performed using the F-Statistic (F) ratio. Significant variations between the group means are indicated by a higher F-value. The possibility that the results were obtained by complete potential is known as the P-value. The p-value is less than 0.05; the observed alterations are considered statistically significant and are most likely the product of random variation shown in Table V.

Table V Result of ANOVA

Hypothesis	Mean FP	F-Statistic	p-Value
H1	75	5.32	0.023
H2	80	6.45	0.015
H3	70	4.21	0.046
H4	85	7.89	0.008
H5	78	5.78	0.020

H1: OI has a considerable beneficial impact on FP, as evidenced by the mean FP of 75, F-statistic of 5.32, and p-value of 0.023.

H2: The mean FP for MI is 80, showing a significant beneficial effect on company performance ($p-$ value $=$ 0.015, $F-$ statistic $=$ 6.45).

H3: LI has a considerable beneficial impact on FP, as evidenced by the mean FP of 70 ($F-$ statistic: 4.21, $p-$ value of 0.046).

H4: FP is significantly improved by PI, as evidenced by the mean FP of 85, a $p-$ value of 0.008, and an $F-$ statistic of 7.89.

H5: The mean FP for CEI is 78, indicating a positively significant effect on FP, with a $p-$value of 0.020 and an $F-$ statistic of 5.78.

Conclusion

Study examines the impacts of the innovations on CEI, LI, MI, PI, and OI for FP. The studies based on surveying 200 organizations and employing SPSS data analysis reveal that all kinds of innovations have positive effects on the corporate performance. Primary data analysis by descriptive statistics shows that OI (Mean = 4.2) indicating the highest perceived level among the innovation measured. All of the innovation-related factors were found to be significant predictors of FP, according to the results of the multiple regression analysis, which supported the hypothesis CEI ($B = 0.35, p = 0.000$) having the most substantial effect. The ANOVA analysis further confirms that firm performance varies significantly depending on the innovation type with PI having the highest significance ($F=7.89$, $p=0.008$). Limitations to consideration include possible systematic self-selection bias, lack of representativeness of the industries involved, and issues of endogeneity, whereby the proliferation of a given invention and its impact cannot be easily separated. Potentially, subsequent research may explore the impact of long-term MI and OI on business results, investigate effects specific to a specific sector, and apply innovations in data analysis for a more comprehensive identification of innovation results.

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