

THE EFFECT OF PERFORMANCE MANAGEMENT OF STRATEGY ON AN EXECUTIVE DECISION SUPPORT FRAMEWORK FOR THE FINANCIAL SERVICE SECTOR OF A DEVELOPING ECONOMY

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Abstract

Strategic alignment from a performance perspective is difficult to achieve manually. Transparently aligning organizational strategy to each employee's key performance indicators reduces the risk of duplication and redundancies in performances. Executive Decision Support Framework (EDSF) results in efficiency, cost reduction, and employee satisfaction when their performance is aligned with organizational goals on a continuous basis. This study posits that achieving optimum strategic alignment for the organization and reducing inefficiencies is a function of data and its ensuing analytics.

This paper presents mathematical evidence to confirm that Performance Management of Strategy is integral to an Executive Decision Support Framework (EDSF).

A mixed method research approach was followed where semi-structured interviews were held with Chief Information Officers. The semi-structured interviews formed the basis of survey design. The survey questionnaires were qualitatively analysed using structural equation modelling and the maximum likelihood estimates method, to mathematically prove Performance Management of Strategy is an integral part of Executive Decision Support Framework

This research provides evidence that Performance Management of Strategy is integral to and must be contained in the Executive Decision Support Framework.

Performance Management of Strategy is mathematically linked to an EDSF. Although Performance Management of Strategy comprises latent variables, there is a strong correlation between information quality and an EDSF.

Keywords: Performance Management, Performance alignment, Financial services, Developing economies, Information Systems, Strategy.

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1. Introduction

Performance Management of Strategy (PMS) is increasingly singled out as a primary means, through which organizational performance can be enhanced [1]. According to [2], strategy is considered the basis of decision, making which influences the desired performance level of an organization. [3] is of the opinion that superior organizational performance is a direct effect of a strategic leader's PMS. Therefore, PMS is bound to impact Executive Decision Support Framework (EDSF).

1. 2. Literature review

The literature review is structured to discuss performance management of strategy, including its definition, significance, challenges, and summary. The discussion starts with current literature in PMS, followed by the gaps and limitations of the research study. Studies that make significant reference to performance management of strategy in their research are discussed. The Executive Decision Support Framework (EDSF) is kept in the backdrop of this literature review. A brief overview of Company B (for Bank) in a developing economy is used as part of the compelling case for this research study.

Overview of Company B

The services sector has direct impact on customers where improvements are needed [2]. Furthermore, the financial services sector is selected as a compelling case because the global economic downturn and myriad financial services sector failures have affected customers and economies directly [3]. Examples of organizations in financial services sector that failed economically in their lifecycles include Lehman Brothers, J P Morgan and Chase, Merrill Lynch and Goldman Sachs ([4–6]).

Company B is a South African financial services organization that merged with a global company and began servicing 18 African countries. Company B was once a market leader in South Africa in the financial services sector. After the merger took place, a restructuring of Company B occurred whereby market share and profits of Company B began to decrease. During this transition of alignment, Company B became a market follower, from a technological and customer-centric perspective.

Definition of Performance Management of Strategy

For the purposes of this research, strategic performance management is defined as a process where the organization measures its performance against the strategies and objectives set, which includes financial and non-financial measures.

[7] explain that interest in comparing performance management against strategy has increased notably in the last 20 years. Due to the evolving nature of business, there needs to be a mind-shift in measuring the performance of an organization against its strategy, from using only financial performance measures, to non-financial performance measures [7]. [8] posit that strategic management systems should provide a balanced view of an organization. [9] define these information systems as software that would eventually systemize and analyse data for the strategic decision-making process.

Organizations have realized that it is necessary to monitor and review performance to compete in a continuously changing environment [7]. [10] refers to experts who defines strategic performance management as the process of quantifying the efficiency and effectiveness of past actions. [10] argues by referring to experts that performance management evaluates how well organizations are managed and the value they deliver for customers and other stakeholders. [11] confirms that the strategic performance management process is required to assess whether the organization is meeting its objectives or not. [8] agree with this view that strategic management measurement systems are necessary to implement an aligned strategy to an organization. [12] supports the position that it is important to ensure goal alignment with respect to the strategy of an organization. [13] refer to empirical studies that link an organization's performance to its strategic outcomes. [14] also highlight a sincere need for cascading the organizational strategy to all levels of an organization as there is a lack of coherence between individual functions and organizational objectives.

Much of the literature discusses perspectives on performance, scenario planning, and alignment to the overall organizational strategy. [11] agrees that managing aligned performance against strategy is needed for the organization to sustain its competitive advantage. [15] promulgate that the fundamental principles of driving organizational strategy are a combination of non-financial and financial measures. [16] recommends scenario planning practices be applied in formulating strategies of organizations to cater for organizational risk management. This recommendation implies that non-financial measures also form part of the strategy of organizations and can be simulated for scenario planning. [16] further explains that corporations that do well at scenario planning achieve higher strategic performance.

Despite the advantages of non-financial indicator many organizations still focus mainly on financial indicators to measure strategic performance. Company B, for example, had an overall cost cutting strategy, which does not align with the strategic goal of product expansion. Introducing new products to an existing customer base, while simultaneously trying to attract new customers to new products increases costs. As a financial services provider, Company B must implement both elements in parallel to survive in the market. Having only a cost cutting strategy does not align to the growth of new and existing products and customers for Company B.

Non-financial measures are critical in tracking the organization's performance against its strategy. [10] believes a strategic performance measurement has proved inadequate for many organizations in a dynamic business environment. There is a growing emphasis of using non-financial criteria [10]. [8] indicate in their case study of the wind-farm industry in Europe that social and environmental concerns were integrated and embedded into a strategic performance measurement system to enable the company to effectively streamline their decision making. For a strategic balanced scorecard, [8] do not focus on what they refer to as a 'narrow metrics' of only financial factors but also use measures that fully reflect the organizations' wider stakeholders and strategic value drivers. [17] propose that non-financial indicators are considered as the drivers of future performance of organizations.

[18] refers to performance management as a central tool for a management structure, in which decisions are based on outcomes rather than financial considerations. [19] agree that with the changing degree and dynamics of market competition, traditional performance measures are outdated; strategically focused measures, such as quality, speed, and flexibility, have emerged as the competitive performance measures. [19] recommend that a new framework is required to integrate and balance different financial and non-financial indicators for strategic performance management. [8] refer to a 'Responsive Scorecard', which is a balance between economic, environmental, and social objectives for a strategic balanced scorecard. [8] provide an example of a 'Responsive Scorecard', which includes five perspectives: customers and suppliers; financiers and owners; society and planet; internal processes; and employees & learning. [18] explains that performance management needs to be based on a strategy. [10] agrees with the link between performance management and strategy, where performance management is a process of the organization that integrates its performance with its strategies and objectives. [20] refer to 'information theory', which views public organizations as systems that require collection and exchange of information to enhance strategic decision quality.

It may be argued, that strategic drift begins to intensify over time if performance management is not linked with the strategy of the organization. In large organizations, performance management, aligned to strategy, is difficult to achieve due to the large number of employees. [20] reference to 'information theory' indicates that performance management against the strategy of an organization is a continuous and iterative process, involving continuous collection and exchange of information. Formal procedures and controls, instituted to continually check and validate strategic alignment of every employee's performance measure, play a crucial role in organizational strategy.

[21] agree that traditional approaches to performance measure focus on financial indicators, such as profit, debt, and return on investment. These traditional approaches are a 'blinkered one-dimensional view' of the organizational performance [21]. Expansion of these traditional approaches to include factors beyond financial numbers allows a more holistic and realistic view of the organization. [8] advocate that both financial and non-financial indicators should be proposed in a combination on lead and lag indicators of an organization's strategic balanced scorecard. [8] further propose that all perspectives and development areas crucial to the vision, strategy, and values of an organization be represented on the strategic balanced scorecard. In the 1970's and 1980's fundamental transformations in industrial systems created a challenging business environment, which prompted organizations to search for better insight into their business activities and operational performance [21]. The growing importance of these changes intensifies the need for alternative control and performance measures to allow business to stay competitive and profitable, aside from financial-only performance measures.

Integrated reporting and strategic balanced scorecards are used with indicators other than financial measures by some organizations. [22] argues that performance management practitioners have used concepts, such as budgeting, forecasting, score carding, dash boarding, reporting, financial consolidation, and operational analytics, to encompass strategic business performance management. However, the concepts previously used are much narrower than the concept of strategic business performance management; therefore, other key metrics, such as initiatives, efficiencies, and projects, should be used [22]. [8] suggest that short term results, long-term capabilities, and growth opportunities should all be part of a strategic balanced scorecard that actively steers the organization. [8] recommend that a strategic balanced scorecard embodies broader and contextual aspects of an organization. [14] mention that the strategic balanced scorecard of an organization should be dynamic over time to include financial indicators and changing market forces that can affect the organization.

This literature study validates the need to use non-financial measures for managing organizational performance. As a result, enterprise resource planning systems (ERPs) are not sufficient to manage organizational performance as they are mainly internal organizational systems. Therefore, additional systems, such as Strategic Performance Management Systems (SPMS), are required to accommodate financial and non-financial measures.

Significance of Performance Management of Strategy

[10] proposes that strategic performance management provides managers, employees, and other business stakeholders with instruments to regularly plan, continuously monitor, periodically measure, and review performance of an organization. [19] explain that the strategy execution process converts strategic objectives into results. [19] advocate for a performance measurement system to help managers assess, monitor, control, and revise the strategy execution process. [17] find that Return on Equity (ROE) had a strong positive correlation of improving between 2–10 %, with the use of strategic information throughout the organization.

[2] agrees that from a global strategic management perspective, strategies need to be proactively managed. [23] agrees that strategic performance management has become increasingly prominent in the recent years due to the need to manage competitive advantage. [1] are of the view that strategic management is increasingly singled out as one of the primary means of enhancing organizational performance. As per [17], Strategic Performance Management systems allow enterprises to plan, measure, and monitor performance whereby decision making is increasingly aligned to achieve desired results and value creation for shareholders.

[1] state that strategy is a broad way, in which an organization seeks to maintain or improve its performance. They explain that strategy is how an organization interacts with its environment and the way it seeks to improve its performance [1]. Strategy is a pattern of action, through which organizations propose to achieve desired goals, modify current circumstances, and realize latent opportunities. [17] highlight how strategic performance management systems contribute to the achievement of strategic goals by linking policy priorities, communication between objectives and activities, and the allocation of resources. [20] explain that rational planning practices inject information into decision making processes by enabling focus on strategic goals and insights into the industry's environment, coupled with performance information.

From these expert views, it appears that strategy forms the core of an organization's method in dealing with how the organization would meet its objectives and its vision and mission. Due to the linking ability that the strategy performs in an organization, it is of paramount importance, that performance management of the strategy forms part of an executive information system (EIS). [20]'s explanation of 'rational planning processes' implies a mechanistic and systematic method, in which information is managed to enable strategic decision making.

[11] explains that improving competitiveness is one of the most important objectives for companies; it is the driver for formulating a competitive strategy. In return, a competitive strategy enables resources to achieve the objective of improving competitiveness [11]. Therefore, competitiveness, competitive strategy, and performance managing against the competitive strategy, are interrelated and necessary for organizations to survive in the current dynamic global business era [11]. [24] view strategic performance management as a critical activity for management where

performance measures must align to the organization's strategy. It can be noted, that aligned, detailed key performance indicators to the overall strategy can therefore be recommended for the Executive Information Systems Framework (EISF). [17] confirm that strategic performance management systems ultimately have a positive impact on business performance. [17] further elaborate that simply implementing a 'Balanced Scorecard,' for example, cannot be successful without the support of high-quality information systems, which would need to integrate with large amounts of data for strategic decision making.

[17]'s research mentions of a Business Intelligence (BI) system that turns data into information. The shortcoming of [17]'s research findings is that BI systems do not fully articulate the flow of information from a strategic point of view from differing angles, which would provide a comprehensive strategic information systems framework for executives in the organization.

[24] affirm that performance measures against strategy need to be regularly reviewed to ensure alignment. Changes in priorities resulting from changes in strategy may render performance management irrelevant or even counterproductive. [9] stipulate that poor strategic decision making is the main characteristic that commonly surfaces as the main contributor to organizational failures. [9] further posit that organizational failures remain unreasonable because these organizations fail to use their information systems for strategic decision making. Therefore, information systems in organizations complement strategic decision making. [20]'s research convey that strategy is a cornerstone of public organizational reform and show a positive correlation between information processes and strategic decisioning in an enterprise.

Challenges to Performance Management of Strategy

[18] contends that performance management contains high costs, and a further criticism is the limited measurability of outcome indicators. [10] research portrays the proportion of financial and non-financial measures, embedded in performance management systems, as unsuitable. Although managers have already recognized that strategy, human resources and internal processes are critical for performance, these are still not reflected in their current performance management systems. [9] indicate that incompetent information management and analytics inability can lead to blind spots in strategic information management.

[19] maintain that many companies struggle in achieving performance, aligned to strategy. [19] point out that literature is limited where performance management systems ensure effective strategy execution, especially in developing economies, such as India. [19] emphasize that performance measures are of strategic importance for long term sustainability.

[25] emphasize that competitiveness of organizations is crucial and is directly linked to their level of strategic performance. [25] further posit that in a rapidly changing world, information is strategic to survival. [26] highlight overall organizational performance and results as needing continuous adjustment emerging from dynamic times. Organizations need to be both flexible and agile on a continuous basis due to an ever-changing business landscape. Therefore, there is a challenge for strategic performance management systems overall. For example, data would need to be continuously uploaded and validated to ensure correct outputs are being produced for the strategic performance management system.

[21] contend that 56 % of strategic performance management systems fail because these systems are not fully implemented and therefore are not being used optimally for controlling and managing the organization [21]. [27] refers specifically to the public sector, whereby strategic performance management systems can be difficult and cumbersome. [27] states this is because of uncertainty of government funding, which is crucial for determining outputs and goals of strategy. [9] refer to a framework for a strategic performance management system; however this framework only speaks to qualitative factors, such as leadership and strategic planning. [9]'s framework for a strategic performance management system does not account for how and from where the information should flow to allow for a pragmatic system that supports strategic decisioning, aligned to the organizational strategy.

[21] explain that traditional strategic performance management systems contain one-dimensional financial information. Although strategic performance management systems were re-engineered for non-financial performance measures, there is little convincing evidence of the advan-

tages and disadvantages organizations experience in practice when using strategic performance management systems [21]. There is thus a gap in the body of knowledge, related to use of non-financial performance measures that this research aims to address. This research further aims to show practical applicability of EISF. Successful practical application of EISF can potentially enhance the organizational success above 56 %.

When an organization embarks on an EIS, benefits realization tracking should be agreed upon upfront and thereafter tracked and monitored after the EIS is implemented. The tangible impact of EIS implementation is realized by such approach to tracking.

[21] argue that evidence supporting the use of strategic performance management systems; organizations achieve higher turnover, higher customer satisfaction, and higher market share than an organization that does not use strategic performance management systems. [28] argue that without adequate monitoring, strategy often falls short of optimum performance. [29] highlights various ways to measure performance against a company's overall goals. Therefore, from the different views of the literature, it can be noted, that strategic performance management systems are required to enhance organizational performance.

[28] refer to the *Harvard Business Review* of 2005 whereby experts found that companies typically realize only about 60 % of the potential value of their strategies due to defects in execution. The research, conducted by [28], consisted of 400 small to medium enterprise (SMEs) companies in Australia, where a statistically significant relationship was discovered between strategy and performance. [17] highlighted that the effectiveness of strategic performance management systems may decrease in enterprises where environmental dynamism is high.

[28] concluded that it is not enough to focus on strategy. Therefore, strategy and performance must be closely linked within any organization. The research, conducted by [30], showed that strategic performance management information was hard to find on the companies' intranet websites. Accessing the strategic performance management reporting was time consuming.

Based on the literature studied, it is imperative, that any mechanism, which can be used to enhance the strategic potential of an organization, is tested, customized, and implemented. One of these mechanisms is the EISF for an EIS, which can positively affect overall strategic potential, as discovered later in this research.

[31] refers to Venkatraman and Ramanujam (1985) who are supported by several other authors with the view that strategic management researchers focus more on operational measures than strategic measures (Chakravarthy, 1986; Eccles, 1991; Hitt, 1988; Kaplan and Norton, 1992). [31] conducted research and concluded that there is disconnect between a firm's strategic performances and performance in other areas of the firm.

An EISF can assist in resolving the disconnect of strategy and performance, since one of an EISF's elements, as discussed earlier in this literature review, is "alignment of reporting", which encompasses aligned key performances indicators throughout an organization.

[24] refer to the study, conducted by O'Mara (1998), which found that managers had no formal recognition of a link between performance management and strategy. [24] mention the research, conducted by Ittner and Lacker (2003), which highlighted the frequent failure of business managers to link performance measures to the organization's strategy. The study, conducted by [24], confirmed that strategic performance measurements were not aligned to the strategies of organizations. [32] posits that there is a need for strategic alignment and linking to occur throughout organizations, whereby CEOs must be on board; however, this is often not the case.

It is for these reasons, that the EISF can provide a dynamic, real-time, and iterative framework of data to support management decision making, ensuring alignment to the overall organizational strategy. The EISF can therefore alleviate the concerns of strategic misalignment in organizations.

[10] recommends a balance of performance metrics to avoid information overload, although a multidimensional view of factors other than finance inputs are needed for strategic performance management. [24] refer to Neely (1999) who suggests that strategy-aligned performance measurement is especially important for those organizations whose strategy is continually changing due to operating in highly dynamic environments. Such organizations will need to be able to rapidly adapt

their performance measures to support new deliberate or emergent strategies [24]. [27] mentions that there must be a close alignment of work plans to the overall strategic goals and objectives of an organization, which would complement each other toward the success of the strategy of the organization.

A characteristic of dynamism exists as stated by the authors above. Therefore, mechanisms need to be built to support an organization's decisioning abilities, emanating from the ever-changing environment of business. This characteristic of dynamism is considered in the EDSF to be assimilated as the output of this research.

The aim of the research is to illustrate a proven linkage between PMS and an EDSF.

2. Methods and Materials

The study participants consisted of mid, senior and executive management aged from 30 to 50 years of age. Their gender was not requested, however, informed consent was obtained from all participants before participating in the study. It took 3 years to complete the study.

Consent letters to collect data were obtained from the organization where the data was collected. The research ethics application was submitted on 24 March 2014 and approval was granted by the university's research ethics committee on 03 June 2014, REF# 2014_SBL/DBL_017_FA.

The research paradigm is based on mixed methods research methodology. The research is conducted using a case study of Company B, which is an organization in the financial services sector of a developing economy. A deductive research logic was looked at first, as per the theoretical default framework above. The time horizon was cross sectional due to time and resource constraints of the researcher. A Likert scale questionnaire was designed for the research. Since Company B forms part of an extremely competitive financial services industry, it would not have been allowed to do this research with its competitors. Therefore, the research study findings may not be generalizable across all industries aside from the financial services industry. However, the findings from Company B can be transferable to other organizations within the financial services industry.

The mixed method approach methodology consisted of qualitative, semi-structured interviews. This mixed methodology ensured high validity and high reliability of the research, because quantitative and qualitative research deals with high validity and high reliability respectively. Semi-structured interviews were held using a purposive sample with the four chief information officers (CIOs) to obtain depth of knowledge and context that was used in the designs of the survey questionnaires.

The results of the semi-structured interviews were used in designing the quantitative aspect of the survey questionnaires. The semi-structured interviews were conducted using a voice recorder and interview notes. The survey questionnaires were then designed and piloted among nine persons across the organization before the survey questionnaires could be finalized for distribution. This pilot was done to ensure the questionnaires were understood by participants. No major corrections were made to the survey questionnaires after the pilot was conducted.

The survey questionnaire was in the form of a Likert scale, which was piloted first. The population consisted of 706 persons, the total number of senior and executive managers across the organization. Thereafter, proportional sampling techniques were performed to carry out the survey questionnaires to ensure a stratified sample response across the divisions in the organization.

The results of the semi-structured interviews were analysed and synthesized using themes and counting techniques, to ensure all input was included for consideration in the survey questionnaires. The analysed feedback was then captured by the formation of the survey questionnaire. The survey questionnaires were handed out manually and sent via email to participants to increase response rates. An email reminder had to be sent to participants for survey responses to ensure an increased response rate across the divisions, which is summarized in **Table 1**.

The results of the survey questionnaires were inferentially analysed using SPSS and IBM AMOS computer software to identify trends and patterns because SPSS and IBM AMOS software is more accurate than manual analysis of trends and patterns. Thereafter, descriptive statistics were used to represent the results emerging from the survey questionnaires using bar graphs and/or pie charts.

Triangulation of results took place by the researcher to increase the validity and reliability of the research, through manually comparing the results emanating from the semi-structured interviews to the survey questionnaires. This provided in-depth triangulation outcome results after the comparison of the data was completed. High validity was maintained using the qualitative semi-structured interviews and high reliability was maintained using the quantitative survey questionnaires, therefore confirming the choice of a mixed method methodology of maintaining high results in both validity and reliability of the research.

Ethics throughout the research process was maintained. For the statistical analysis, structural equation modelling was used for validity and reliability of the research; and the maximum likelihood estimates method was used to show if the constructs were mathematically related.

Table 1

Performance Management of Strategy Summarized from the Semi-Structured Interviews

Performance Management of Strategy			
Theme	Common	Outliers	
Only a 12-month view & measurement of strategy	X		
Need 3–5 years measurement of set strategy		X	
Customer focus is lost, accountability is needed here because customer attrition rate is too high	X		
Process needs more formalization		X	
Too much focus on financial criteria- only 30 % on non-financial criteria	X		
Exogenous factors need more focus	X		
IT and business strategy need more alignment	X		
Too dependent on manager at times- not on strategy of the business unit and organization		X	

3. Results and discussion

The semi-structured interviews are summarized in the figures below, which highlight the common themes and outlying themes for every construct from the Chief Information Officers from each division of Company B.

There is evidence of the strategy not being performance managed. Interviews also started producing information on too much monitoring of finance. There was acknowledgment of the need to consider external factors affecting the company, which aligned with the expert views in the literature review ([11, 21–32, 34]).

3. 1. Geographic and Demographic Analysis

The respondents to this survey totalled one hundred and seven (n=107) bank officials. Those in the Retail and Business Bank divisions accounted for 43 % of respondents, the remainder were comprised of: Corporate and Investment Banking, 17.8 %; Financial services Insurance 14.0 % and Enterprise Support Services 25.2 %. Almost all the respondents are based in South Africa (99.1 %), while the remainder (0.9 %) are from Africa (12 countries). The respondents in South Africa amounted to 99.1 % (**Table 2**).

Table 2

Percentage Response from Each Division of Company B

Area	Frequency	Percent	Valid Percent	Cumulative Percent
Retail and Business Bank	46	43	43	43
Corporate and Investment Banking	19	17.8	17.8	60.7
Company A Financial Services (Insurance).	15	14	14	74.8
Enterprise Support Services (IT, Risk, Compliance, HR, Finance)	27	25.2	25.2	100
Total of each area	107	100	100	n/a

As compared to the initial sample frame of 141 respondents at the onset of the research per the research methodology, there was a 76 % response rate. There was no initial sample target, set for respondents in South Africa. However, as stated earlier, most respondents were from South

Africa, i. e.: 99.1 %. Retail and Business bank had a targeted response rate of 19.7 %; the actual response rate achieved was 43 %. Corporate and Investment Banking had a targeted response rate of 20 %; 17.8 % was achieved. Financial Services Insurance was initially allocated a 20 % response rate target; a 14 % actual response rate was achieved.

Enterprise Support Services was initially allocated a 20 % response rate and achieved a 25.2 % response rate. Retail and Business Banking and Enterprise Support Services had an increased response rate of 24 % (i.e. 43 %–19.7 %) and 5.5 % (i. e. 25.2 %–20 %) respectively, based on the initial sample frame. Corporate and Investment Banking and Financial Services Insurances had a decreased response rate of 2.2 % (i. e. 20 %–17.8 %) and 6 % (i. e. 20 %–4 %) respectively. An overall summary of responses will be provided next.

3. 2. Summary of Responses

Note that most of the sample population disagreed with the questions on performance management of strategy. As with ‘aligning performance indicators’ above, the performance management of strategy questions were designed per the literature review and the semi-structured interviews, which stated how performance management of strategy should ideally occur in an organization. The fact that most of the responses given were ‘disagree’ emphasizes that the ideal, discussed in the literature review and semi-structured interviews, are not occurring in practice. Therefore, most of the sample population is classified as ‘disagree’ with these statements (**Table 3**).

Table 3

Frequency Distribution of the Overall Opinion on Performance Management of Strategy

Option	Frequency	Percent
Strongly Disagree	4	3.7
Disagree	63	58.9
Neutral	30	28
Agree	9	8.4
Strongly Agree	1	0.9
Total	107	100

3. 3. Structural Equation Modelling for Validity and Reliability

To evaluate reliability of the measurement items by determining how participants interpreted the questions per category, Cronbach’s Alphas with an acceptable value of 0.70, as confirmed by [34], was calculated and confirmed to be greater than the recommended value of 0.70 (**Table 4**).

Table 4

SEM for Validity and Reliability

Construct	Questionnaire	No. of Items	Cronbach’s Alpha	No. of Valid Sample
Performance management of strategy	D1 – D13	13	0.937	107

3. 4. Maximum Likelihood Estimates

Performance Management of Strategy was analysed to ascertain how much it contributes to an EDSF using the statistical method of maximum likelihood estimates. This is summarized in **Table 5**.

Table 5

Maximum likelihood estimates results

Relationship	Estimate	SE	CR	p-value	Label
PMS and API	0.821	0.081	10.153	***	C2

Therefore, the model equations in the structural framework are as follows: $PMS = 0.821 API + Z5$. PMS is made up of 0.821 of API in EDSF. Z5 represents all other aspects that constitute PMS.

The experts, mentioned above in the literature review, do acknowledge the criticality of aligning performance management to strategy per the views of [1, 10, 11, 18, 19, 21, 22, 24, 26, 35]. However there has been no mathematical evidence, provided by researchers, to prove this important link between performance management and strategy of an organization; which this research paper has now provided per the proven mathematical linkage between performance management and strategy of an organization.

Limitations. A selected case study in the financial services sector was used in this research. As a result, this study cannot be generalized outside the financial services sector. Confidentiality of the selected case had to be maintained because of the highly competitive nature of Company B. Although generalizability is not random, the outcomes can be transferable to any other case exhibiting similar characteristics to that of Company B.

Feedback for the research methodology was obtained only from senior and executive management because time for the research study did not permit other levels of management, such as operational and tactical management, to be included.

Prospects for further research. Performance of employees depends on factors that keep changing depending on the needs of the organization and the context, in which it is operating. External factors (such as COVID-19) and internal changes (such as a new product line) can impact performance negatively. Further research is required in how performance is measured in the context of these changes and how that data can be fed in a Decision Support Framework (EDSF) in order to enhance employee engagement and satisfaction.

4. Conclusion

Strategic performance management across an organization is a challenge. This research proposed linking employee output visibly and transparently to the strategy of the organization. Based on the literature review, strategic performance management is beneficial to decision making within an organization.

As per the research questions mentioned above: “Should performance management of strategy form part of an executive decision support framework?” and “Is performance management of strategy mathematically linked to an executive decision support framework?”

The literature review indicates that performance management is critical and should form part of an EDSF, since managed and competitive strategies for all organizations are required for their survival in the current highly competitive business environments. This is supported throughout the literature review by various expert views, which are also supported by the researcher’s views.

This research also proves that performance management of strategy is mathematically linked to an EDSF via the statistical analysis, done with structural equation modelling, and maximum likelihood estimates, conducted through the mixed method research methodology.

Although several prior research studies refer to criticality of performance management of strategy, this research provides a mathematical link between PMS and EDSF. The purpose and objective of this research has been met from answering the set questions above.

Conflict of interest

The authors declare that there is no conflict of interest in relation to this paper, as well as the published research results, including the financial aspects of conducting the research, obtaining and using its results, as well as any non-financial personal relationships.

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