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Abstract

This paper examines the impact of controllership and performance indicators on the decision-making process of small and medium-sized enterprises. There is a need to have good financial control in SMEs. There are five key themes which are discussed in the literature review. It was done by a qualitative approach interviewing five professionals. The results indicate that controllership and indicators are favourable to better decisions, however, many SMEs apply them in straightforward and informal means. The paper concludes that the leadership, training, and data trust are key areas that are needed to enhance decision-making.

Table of Contents

Chapter 1- Introduction 6

1.1 Introduction Background of the Research 6

1.2 Rationale for the Study 6

1.3 Methods of information Gathering and Data collection 7

1.4 Expected Results of the Research 8

1.5 Chapter by Chapter Overview 8

Chapter 2- Literature review 9

2.1 Theme 1: The role of the controller in the management and financial sustainability of SMEs 9

2.2 Theme 2: Performance indicators as strategic support for decision-making 10

2.3 Theme 3: Data-driven decision making and use of technological tools 11

2.4 Theme 4: Challenges faced by SMEs in adopting an indicator-based culture 13

2.5 Theme 5:The role of leadership and controlling in the organizational transformation of SMEs 15

Chapter 3- Methodology 18

3.1 Philosophy / Theoretical Paradigm used 18

3.2 The justification of adoption of method is provided 19

3.3 Sampling Method and Size of sample 19

3.4 Data Analysis Method 20

3.5 Ethical Considerations 21

3.6 Summary 22

Chapter 4-Findings and Discussion (Triangulation) 24

4.1 Theme 1: The Role of the Controller in the Management and Financial Sustainability of SMEs 24

4.2 Theme 2: Performance Indicators as Strategic Support for Decision-Making 26

4.3 Theme 3: Data-Driven Decision Making and the Use of Technological Tools 27

4.4 Theme 4: Challenges Faced by SMEs in Adopting an Indicator-Based Culture 29

4.5 Theme 5: Leadership and Controllership in Organisational Transformation 30

4.6 Summary 32

Chapter 5-Conclusion 33

Limitations 34

Recommendations 35
References 36

Chapter 1- Introduction

1.1 Introduction Background of the Research

This study was conducted in order to learn the effect of controllership and implementation of performance indicators on the decision making in the small and medium-sized enterprises (SMEs). The reason behind selecting it is that small and medium-sized businesses are highly significant to the economy. They generate employment, encourage novelty, and maintain the local growth. Nevertheless, a majority of them are usually disadvantaged in terms of finances and poor management structures. I was interested in the topic since I noted that most small businesses do not fail due to failure to have good products, but due to inability to control the flow of information and poor financial decision-making. The use of controllability and performance measures are necessary instruments that enable managers make superior decisions, make preparations, and minimize risks. The work was also fascinating since it was a combination of human and technical one, knowing how people perceive data and how they can use this information to make their decisions.

1.2 Rationale for the Study

The primary objective of undertaking this research was to establish why the presence of controllership and performance indicators analysis is essential in making decisions. A significant number of small and medium-sized businesses use informal systems and make judgments based on their intuition rather than facts. This study aimed at investigating ways in which the implementation of the controllership practice and structured performance indicators would enhance the decision-making processes.

Research question

How do controllership and the analysis of performance indicators impact decision-making in small and medium-sized companies?

The research was meant to offer insights regarding the possibility of these tools to assist managers to make decisions that are more accurate, reliable and sustainable. The other reason was to demonstrate that controllership is not simply only about accounting, but also relating financial information to strategic planning. In investigating this, the research aimed to fill the gap in the knowledge between theory and practice in the management of a small business.

The purpose of the study was to examine the role of controllership and performance indicators in SMEs decision-making. The sub-objectives which also reflected the key subjects of the study were:

1. To investigate the issues of the controller in the financial sustainability of SMEs.

2. To investigate at the role of performance indicators in strategic decision making.

3. To determine the application of technology and data-driven tools in the decision-making process.

4. To determine the issues encountered by SMEs to embrace an indicator-based culture.

5. To identify the impact of leadership on controllership and corporate change.

These were the objectives directly related to the literature review and subsequently determined the interview questions and data analysis design.

1.3 Methods of information Gathering and Data collection

The study was qualitative in nature to address the actual experience of individuals employed in the field of controllership, accounting and management. Semi-structured interviews

were the primary mode of data collection. The sampling method was adopted due to the freedom that participants had to express their views the selection method enabled the research to ask more questions when an interesting event was raised. The research involved five subjects who were employed in a small and medium-sized company. They were sampled using the convenience sampling method which implies that they were sampled due to their availability and work experience. Thematic analysis was used to analyse the data, in which the answers of the interviews were coded into patterns and grouped into a set of themes which corresponded to the study objectives.

1.4 Expected Results of the Research

The outcome of the study would demonstrate the way the controllability and performance indicators would assist SMEs in making better decisions and enhance the financial stability of the same. The study was also supposed to find the best practices that small businesses can employ in developing more effective control systems. The research expected to gain a better insight into the relationship between controllership and management strategy and financial information. It was also anticipated that the results would motivate more SMEs to invest in data analysis, training and development of leaders to aid in making informed decisions._

1.5 Chapter by Chapter Overview

Chapter one provided the background, purpose and objectives. Chapter two presented literature review on the themes. Chapter three described the research design, paradigm, sampling, data collection and data analysis methods. Chapter four explains results of the interviews, based on the primary themes. Chapter five provided the conclusion, limitations, and the recommendations

Chapter 2- Literature review

2.1 Theme 1: The role of the controller in the management and financial sustainability of SMEs

Organisational controllership is one of the multifaceted functions of modern management. Originating from the sciences of Administration, Economics, Psychology, Statistics and, above all, Accounting, its aim is to seek efficiency, coherence and intelligence in decision-making processes. It can be seen as the "conscience of the company", connecting data to strategy, not just as a technical instrument, but as one of the active principles for the sustainable evolution of the business.

According to Anthony and Govindarajan (2011), management control systems are essential for aligning strategic and operational objectives, allowing controllership to act as a dynamic form of effective decision-making. This view is expanded by Merchant and Van der Stede (2017), who point out that organisational controls must encompass behavioural, strategic and financial aspects in order to indicate value. As such, it's not just about reporting numbers, it's about promoting an in-depth understanding of business development.

The financial progress of small and medium-sized enterprises (SMEs) is directly related to the capability to control and deal with business variables. Drury (2018) accentuates that management accounting is the basis for confirming efficiency in environments with scarce resources. In smaller companies, budget control, cost analysis and cash flow forecasting become indispensable tools.

Kaplan and Norton (1996), through the Balanced Scorecard, present a measurement model that allows organisational performance to be understood in multiple dimensions. This

model is extremely relevant for SMEs that want to align their mission with their daily practices. Similarly, Horngren et al. (2013) contends that management accounting is not just a registry process, but a tool for critical rigorous and leadership support.

Simons (2000) promotions the idea of control systems as levers for implementing strategies, arguing that managers should consciously advise which controls to make more flexible and which to intensify. In the context of SMEs, this selectivity is of vital importance because of limited human and financial resources. Flamholtz, Das and Tsui (1985) also made significant contributions by exploring organisational control as a dynamic and adaptive system.

2.2 Theme 2: Performance indicators as strategic support for decision-making

Leading accountants such as Atkinson et al. (2012) reinforce the valuation of information for strategic fulfilment, arguing that accounting data should become performance description. This understanding is in line with Bhimani et al. (2019), who deliberate how modern management accounting must agreement with a digital and highly volatile business environment, which is exclusively relevant for SMEs.

Langfield-Smith (1997) argues that control systems need to be designed to promote organisational learning, not just compliance. This view strengthens the idea that controllership is also educational, as it prepares the company for continuous progress. For Abernethy and Brownell (1999), effective controls need to support managerial autonomy without compromising the organisation's objectives.

Otley (1999) provides a control framework based on five issues, including the definition of objectives and the link between performance and rewards. This model is highly applicable to SMEs, as it induces the construction of control systems adjusted to the complexity of the

business. In the same vein, Anthony Hopwood (1972) notes the importance of the social context in the use of accounting information.

Shields (1997) points out that management accounting should be co-created with managers, with a participatory and non-imposing methodological style. The decentralised style fits well the small firms where the owner and the managers make operational and financial decisions in close association. It renders the participatory model particularly effective, since all the necessary information concerning the actual situation in the organisation is taken into account.

Lastly, Nixon and Burns (2012) maintain that management accounting has evolved to develop a task characterized by agility, technology and focus on value. This emphasises the idea that controllership must be alive, responsive and committed in order to fulfil its role in business management.

Companies that adopt a data-driven approach generally have superior financial performance, as their decisions are based on concrete evidence rather than intuition. According to Provost and Fawcett (2013), the strategic use of data can create a sustainable competitive advantage by enabling more assertive forecasts. Controllership, in this scenario, becomes a bridge between data and strategy, translating metrics into actions.

2.3 Theme 3: Data-driven decision making and use of technological tools

Davenport and Harris (2007) point out that analytics-driven organisations are more likely to outperform their competitors. In SMEs, where resources are limited, efficiency in analysing and applying data can make the difference between survival and failure. Gandomi and Haider

(2015) emphasise that the value of Big Data lies in its ability to generate insights applicable to business, which requires team skills and adequate infrastructure.

However, there are many challenges for small and medium-sized companies to fully adopt a data-driven culture. These include a lack of technical skills, the high cost of analytical tools and resistance to change. As LaValle et al. (2011) argue, organisational culture is one of the main obstacles to the effective implementation of analytical processes.

Authors such as Kwon, Lee and Shin (2014) point out that in order for decision-making to be guided by results data. This necessitates effective information security mechanisms and well developed privacy policies especially in the controlled industries. These conditions help to make decisions based on data and ensure the reliability of controllership and the analysis of performance indicators to guide such decisions in small and medium-sized companies.

The adoption of KPIs (Key Performance Indicators) is an effective exercise in data-based management. According to Parmenter (2015), KPIs must be appropriate, relevant and aligned with the company's strategy. For SMEs, due to the context, it is ideal to adopt a lean set of indicators with improved definitions rather than trying to monitor a large volume of metrics that do not translate into concrete actions.

Furthermore, authors such as Marr (2016) suggest that effective decision-making needs to be influenced by visualisation based on accurate data. Tools such as dashboards and visual reports allow you to quickly understand the business situation. This is especially useful in SMEs, because decision-makers' time is scarce and because many of them also have operational roles in the company and need to be able to provide information quickly.

The literature also emphasises that the use of data must be linked to clear business objectives. As McAfee et al. (2012) point out, companies that are 'data-driven' conceptualise their analysis initiatives with their main strategic objectives, such as revenue growth, cost reduction and an adequate customer experience.

However, it is clear that the implementation of data-driven leadership involves the continuous training of processes with structured resources. Controllership has the ability to lead this movement, unifying data with the company's strategic language and helping managers to make favourable and agile decisions for the effective fulfilment of the organisation.

2.4 Theme 4: Challenges faced by SMEs in adopting an indicator-based culture

The implementation of management based on performance indicators in small and medium-sized enterprises (SMEs) fundamentally represents a professionalization that consolidates competitiveness in an increasingly dynamic and data-driven market. However, this process encounters a series of obstacles, which can be categorized as structural, cultural, technical and institutional. These challenges, although significant, are not insurmountable and can be tackled through well-defined strategies and an active role for controllership in the organisational environment.

The most prominent barrier is the lack of analytical perceptive on the part of managers. As Silva and Fernandes (2021) emphasise, many SME leaders are still relying on intuitive decisions, personal perceptions or experiences. This approach, while useful in contexts of urgency or informality, becomes limited in the face of the complexity of today's business environment. The lack of a habit of consuming objective data expose to risk not only the accuracy of decisions, but also the company's ability to learn from its own errors and successes.

Furthermore, when there is no culture of measuring results, the opportunity to set clear targets, monitor the evolution of processes and correct routes based on concrete evidence is lost.

Another exacting aspect is related to the gap in technical knowledge among SME professionals. According to Barbosa et al. (2020), even when there is interest in adopting analytical tools, there is often a lack of familiarity about how to choice adequate indicators, how to interpret them correctly, and how to participate them into day-to-day decision-making processes.This absence of training limits the potential use of technologies available on the market, which, notwithstanding being accessible in many cases, blocks a minimum capacity for them to be used effectively.

Cultural resistance is a significant barrier. According to research by Hofstede (2001), companies with behaviour of inflexibility to uncertainty tend to resist modification, especially when these changes involve the implementation of new methodologies, focused on technologies or forms of control. In some SMEs, where decisions are centralized and the organizational structure is familiar, the culture inclines to use logical practices over time, but this does not mean that they are not efficient. This resistance can apparent itself subtly or explicitly. In these cases, it is necessary to work on raising awareness among leaders and employees, highlighting the concrete benefits of the culture based on indicators, both in terms of performance and risk reduction and increased predictability of results.

From a technological point of view, the difficulties are equally significant. According to Oliveira and Alves (2019), many SMEs face difficulties regarding information technology infrastructure. The lack of integrated systems, the use of obsolete platforms, and the scarcity of automated processes make it difficult to develop reliable and efficient data analysis. In such

environments, it is impossible to build management based on indicators, due to a limited and compromised information base.

2.5 Theme 5:The role of leadership and controlling in the organizational transformation of SMEs

Regarding time and prioritization by managers. Souza et al. (2022) demonstrate that in many SMEs, leaders combine administrative and operational roles. Thus, the daily overload of activities prevents the effective implementation of this model. This results in reactive management, which acts to put out fires instead of building a solid foundation for sustainable development. In these cases, the role of the controller is relevant, as it can assume the responsibility of organizing data, preparing management reports, and offering strategic insights that help alleviate the burden of operational management.

Lack of confidence in data results in vulnerability information. Conferring to Power (2008), for indicators to have a positive influence on decision-making, it is indispensable that the data is reliable, consistent and auditable. However, many SMEs still operate with inadequate data collection processes, without clear standards or cross-validation. This situation affects the quality of information and can lead to erroneous decisions based on incorrect or distorted data.

Additionally, the lack of institutional support worsens the situation. Lima et al. (2020) point out that, although there are public programs to encourage the modernization of companies, many of them are not targeted at the specific needs of SMEs, or are not sufficiently publicized and accessible. Without current public policies, small companies have to incur large costs to invest in technology, training, and consulting, which is already constrained by tight financial limits. The lack of adequate organisational support places limits on the adoption of good

management practices and the chances of organisational change will always be concentrated in bigger organisations or those that have enough financial strength (Chang and Andreoni, 2020).

In addition to the reasons already mentioned, it is significant to highlight the role of leadership in the process of cultural transformation. The acceptance of indicators as a strategic management tool involves leadership committed to transparency, continuous learning, and the appreciation of data as intangible business assets. When leaders demonstrate openness to change and encourage the use of data to support decisions, conditions are created for other employees to also develop an analytical stance. On the other hand, leaders who ignore or discourage the use of indicators send a message that data culture is not a priority, which weakens any attempt at organizational change (Santoro,et.al, 2020).

It is also essential to consider that the use of indicators must be aligned with the business strategy. The definition of which indicators will be monitored cannot be made in a generic way or disconnected from the company's strategic objectives. Poorly selected indicators can generate misinterpretations, divert focus from what really matters or even encourage counterproductive behavior. Therefore, the implementation of an indicator system must be preceded by a strategic diagnosis, in which the company's main processes, critical success factors and short, medium and long-term objectives are identified.

In this context, the controller's office plays a role in generating and disseminating information that is useful to management. The controller's office can lead the process of adopting a culture based on indicators, promoting integration between the different areas of the company and facilitating alignment between strategy and operations. This role goes beyond financial analysis; it involves understanding the business model, communicating with managers, and

creating an environment conducive to continuous improvement, with information that is relevant for implementing control panels and developing reports that facilitate decision-making (Hyvonen,et.al, 2015).

In short, the challenges faced by SMEs in adopting a culture focused on performance indicators are diverse and interconnected. They involve everything from structural and technological issues to cultural and institutional barriers. However, overcoming these difficulties is possible even in an economic scenario that demands agility, precision, and adaptability.

Chapter 3- Methodology

3.1 Philosophy / Theoretical Paradigm used

This research used a constructivist paradigm. The constructivist perspective holds the view that reality is constructed on the basis of the human experiences and that reality can have numerous truths on the basis of how the people view it (Adom, et.al, 2016). In the study, it was realized that managers, accountants, and finance professionals in small and medium-sized businesses may all have divergent opinions regarding controllership and use performance indicators. The differences were considered valuable towards developing a complete picture of the support provided by such tools in decision making.

This study had its ontological stand that reality is plural and socially constructed. All of the individuals who participated in the study had a unique experience and comprehending of controllership. Hence, there was no absolute truth. Rather, all the perspectives were useful in clarifying the manner in which the controllership and performance indicators influenced business decisions in various organisational contexts (Berger and Luckmann, 2023).

The method of epistemology was inductive. This is to refer to the fact that the knowledge was based on the responses of the participants, rather than a programmed theory. The study commenced with non-answer questions that would help to explore perspectives and experience. The patterns and themes were naturally derived after listening to the stories of the participants. The process contributed to generating knowledge, which was founded on the real experiences, and not assumptions (Bird, 2011).

The constructivist paradigm was appropriate on this topic since the controllership and performance indicators are practices that rely on human interpretation, communication and

cooperation in organisations. There might be a different approach of using these tools adopted by each company. It is due to this reason that the qualitative approach contributed to the complexity and depth of the experiences of people.

3.2 The justification of adoption of method is provided

A qualitative research method was employed in the study due to the suitability of the research method in penetrating the experiences and views of professionals in the field of controllership and performance indicators. The qualitative approach was used to collect descriptive and extensive information that provided the explanation of why and how such practices impacted decision-making.

Semi-structured interviews were used in the collection of data. This was selected because it enabled the participants to give their opinions freely without necessarily moving the discussion in other areas. Semi-structured interviews also provided flexibility to pose follow up questions whenever there was something interesting and unclear in the conversation. This assisted in gathering more knowledge on the perception of the participants in regard to controllership, performance indicators and leadership positions (Karatsareas, 2022).

3.3 Sampling Method and Size of sample

A convenience sampling method was applied in the study. This implies that the participants were chosen due to their availability, accessibility and related experience in the professional field as far as the controllership, accounting and management decision making is concerned. It was suitable in this research since it targeted particular participants who were directly involved in the financial and operational decision-making processes in small and medium-sized businesses.

Five participants were involved in the research. Each of them had a professional experience related to the aspects that were related to controllership, accounting, or management of business. All the respondents were employed in various forms of organisations, which gave them a broad insight in relation to the controllability in various business settings. The participants were assigned anonymous codes to preserve their identity (Golzar, et.al, 2022).

3.4 Data Analysis Method

The data gathered were examined with the help of thematic analysis. This approach was chosen due to the fact that it assists in treating, classifying and analyzing patterns of meaning in qualitative data. The thematic analysis was appropriate to comprehend the issue of the role played by the controllability and performance indicators in decision making in various organisational settings (Maguire and Delahunt, 2017).

The analysis was conducted in a number of steps. Transcriptions were done in all interviews. This was followed by reading of the transcripts a number of times to get used to the content. key words, ideas or phrases were marked and given codes. Every code had meaning, e.g. team resistance, lack of knowledge, use of ERP systems.

The data were coded and then organized into themes which were based on the overall ideas occurring in the interviews. These themes corresponded with the research framework and demonstrated the relationship between controllership, performance indicators, and leadership and their links with organisational practices. It was inductive, which implies that the themes were based on the data and were not imposed on the data in one of the predetermined categories.

The themes were compared after the coding process in all the five interviews. Answers that were similar were collated into a pattern and disparate opinions were analyzed to find out

why diversity was there. This analysis was useful to create conclusions on the impact of controllership and performance indicators on quality of business decision-making.

Example of the thematic coding table used during analysis

Code	Meaning / Description	Theme
Lack of technical knowledge	Employees not trained to use indicators	Challenges in Adopting an Indicator Culture
Use of ERP systems	Digital systems support decision-making	Data-Driven Decision Making and Technology
Manager participation in defining indicators	Involvement of leadership in financial control	Leadership and Controlling in Transformation
Indicators linked to company goals	Indicators used to support business strategy	Performance Indicators as Strategic Support
Controllership seen as supportive role	Seen more as accounting add-on than strategic tool	The Role of the Controller

3.5 Ethical Considerations

All ethical aspects of confidentiality, honesty, and respect to the participants were observed in this research. Informed consent prior to the commencement of each interview was taken. A plain language statement, describing the objective of the research, the voluntary nature of the participation, and the ability of the participants to withdraw at any time was provided to them.

Everyone was willing to participate on a voluntary basis and was promised that their names and company information will not be published in the end report (Govil, 2013). They were

instead identified by codes like **Interviewee 1, Interviewee 2, Interviewee 3, Interviewee 4 and Interviewee 5.**

Validity and reliability were ensured through similarity in procedures of interviews and recording the same core questions on all the participants. The transcriptions of the interviews were done in a keen manner in order to avoid misrepresentation of information. The research cross-codes the responses multiple times and checked on ambiguous issues in the course of the interview (a type of member checking).

Reflexivity was also ensured during the study. It is to say that the research was aware of personal prejudices or expectations that may be applied to the interpretation of data. It was ensured that personal opinions were not imposed on answers of participants. The analysis rather was based on what the participants said.

Neutral language and professional distance without focusing on accuracy were used to avoid bias in the analysis. Information obtained was kept in a safe place and the data obtained was not utilized in any other way other than academic use.

The ethical practices that were observed guaranteed that the participants were treated equally and the research arrived at credible and reliable results.

3.6 Summary

This chapter described the methodological framework, which was employed to understand the role of controllership and performance indicators in decision-making in small and medium-sized companies. The qualitative approach was based on a constructivist paradigm. The information was gathered based on five semi-structured interviews and analysed with the help of a thematic analysis. The ethical principles in terms of confidentiality, reflexivity, and validity

were kept in mind. The selected methodology gave an in-depth and authentic insight on the functions of controllership in assisting data-driven decisions in challenging business contexts.

Chapter 4-Findings and Discussion (Triangulation)

4.1 Theme 1: The Role of the Controller in the Management and Financial Sustainability of SMEs

Findings Quotes

Across the interviews, most participants confirmed that controllership is important, but its implementation in SMEs varies.

Interviewee 1 said, *"We don't have a department dedicated to controllership; however, I'm responsible for financial and accounting reports."* This shows that in many SMEs, the role of the controller is informal and often combined with other functions.

Similarly, **Interviewee 3** mentioned, *"Our company doesn't have a proper controllership department… the partners handle management accounting."*

In contrast, **Interviewee 2,** who works in management accounting, stated that controllership acts as *"the company's right-hand man for its operational development."*

Interviewee 4 confirmed having *"two people in the finance department who report to the board of directors,"* While **Interviewee 5** observed that many SMEs *"had contact persons for performance management but not a full department."*

The results indicate that although there is an application of the concept of controllership within most SMEs, most apply it in a minimal or informal manner, undermining its effectiveness in strategy determination of decisions made. In most of the situations, the financial managers, partners, or external accountants share responsibilities of the controller and this diminishes the capacity of the performance indicators to be used in a uniform and effective manner. Such disjointed structure constrains the functions of leadership and controlling in aiding the

organisational transformation as decision-makers may not get prompt and complete information. As a result, the influence of controllership in decision making is disproportionate among SMEs and this signifies a disparity between the perceived significance of controllership and its practical application.

Comparison to Literature

According to the literature (Anthony and Govindarajan, 2011; Merchant and Van der Stede, 2017), controllership interrelates strategy and financial control to assist decision-making. Drury (2018) emphasizes that management accounting can assure efficiency, particularly in SMEs with limited resources. These perceptions are partially proved right in the interview. Although bigger SMEs **(Interviewees 2 and 4)** use formal controls, other smaller firms **(Interviewees 1 and 3)** rely on intuition or simple reports. This is contrary to the perspective of Kaplan and Norton (1996) who feel that management need to match the strategy with the operations using models such as the Balanced Scorecard.

Discussion

Overall, the results affirm that the controllership contributes to the financial sustainability due to the structure offered to the financial information. Its role in smaller firms is however not very strategic but rather reactive. The absence of formal controllers restricts foresight planning and decisions are made based on the need of finances at the moment rather than the long-term perspective. Literature indicates that controllership must be more of a conscience of the company (Simons, 2000) and the interviews indicate that SMEs still regard it as an extension of accounting. This loophole indicates the necessity to professionalize controllership in SMEs in order to realize sustainable growth.

4.2 Theme 2: Performance Indicators as Strategic Support for Decision-Making

Findings Quote

All interviewees recognised the value of performance indicators but used them differently. **Interviewee 1** mentioned using *"budget vs actual spending in payroll, production cost, liquidity, and sales/revenue performance."*

Interviewee 2 shared a wider list including *"profitability, liquidity, efficiency, gearing, and investor return analyses,"* showing a structured approach.

Interviewee 4 also said, *"Yes, commercial and financial indicators are used and linked to the company's strategic objectives."*

However, **Interviewee 3** stated, *"There are no clear performance indicators in place… most of us don't know what they are."*

Interviewee 5 added that while many SMEs *"requested key reports to check profitability and liquidity,"* not all *"managers participated in defining indicators."*

This indicates that the use of performance indicators though identified as useful, differs significantly. There are those firms that fit them in line with strategy and there are those firms that make it superficially or at random.

Comparison to Literature

Atkinson et al. (2012) and Bhimani et al. (2019) state that performance indicators convert accounting data into strategic information, particularly in dynamic environments. According to Otley (1999) and Langfield-Smith (1997), the indicators ought to promote learning and independence rather than control. Indeed, the interviews with more experienced managers **(Interviewees 1, 2, 4)** indicate that there are indicators that are actually applied to direct financial

performance and strategy, which proves these notions. But the case of **Interviewee 3** firm shows that in the absence of management input, control systems cannot contribute value as reported by Abernethy and Brownell (1999).

Discussion

The results suggest that decision in SME where the indicators are related to the strategy is more accurate and timely. This is in line with the literature that information is important in generating competitive advantage through indicators. However, a lot of small businesses are too immature to use them. This irregularity restricts the effects of the controllership on strategic results. SMEs should not only gather data and provide it to enhance decision-making but also establish clear and relevant KPIs that indicate business objectives (Parmenter, 2015). All in all, findings confirm that indicators mediate between strategy and control and they are successful depending on the commitment of leadership and technical knowledge.

4.3 Theme 3: Data-Driven Decision Making and the Use of Technological Tools

Findings Quotes

All interviewees agreed that technology and data tools are useful but often underutilised.

Interviewee 1 explained that their company uses *"ERP Protheus TOTV's,"* but accuracy depends on *"correct information in the system."*

Interviewee 2 also shared that they use *"Quikbooks integrated with finance departments,"* but *"resistance from management teams hinders implementation."*

Interviewee 3 noted, *"We use a digital system, but it's more like storage, not a real management tool."* **Interviewee 4** reported more advanced use, saying, *"We use project and financial control systems, spreadsheets, and BI."*

Interviewee 5 pointed out that many SMEs *"use printed reports or databases, but reliability is not 100%."*

Overall, the level of adoption of technology depends on the size of the company, culture, and level of skills. The bigger SMEs are developing with integrated systems, whereas the smaller ones continue to have inaccurate data and a lack of analytical culture.

Comparison to Literature

These results are supported in the literature. Davenport and Harris (2007) and Gandomi and Haider (2015) claim that analytics-based companies are more competitive than others but require qualified employees and adequate systems. LaValle et al. (2011) likewise point aspects like cultural hurdles as significant impediments on becoming data-driven. This is supported by the answers of the interviewees: despite technology, a lack of training and trustworthy data will lead to the loss of the value of analytics. Another point that Kwon, Lee and Shin (2014) made was the necessary trust in the data integrity, similar to the statement of **Interviewee 5** on the potential manipulation of data in unaudited SMEs.

Discussion

The findings indicate that technology reinforces controllership, but due to cultural and technical differences, it is less effective. This needs the data-driven decision-making, which necessitates accuracy, transparency, and collaboration across departments, but all these remain underdeveloped in SMEs. Both the literature and findings reveal that the controller needs to be an intermediary between raw data and the managerial strategy (Provost and Fawcett, 2013). In order to get the most out of analytics, SMEs have to create training programs and invest in

trusted systems, and build confidence in data. This would reinforce the association between the controllership and strategic decision making.

4.4 Theme 4: Challenges Faced by SMEs in Adopting an Indicator-Based Culture

Findings Quotes

All interviewees identified significant barriers to adopting indicator-based management.

Interviewee 1 stated, *"Lack of technical knowledge, team resistance, and cost of tools"* are key obstacles.

Interviewee 2 mentioned similar issues, noting *"initial investment and resistance from management."*

Interviewee 3 said, *"We don't have training or understanding of indicators… most decisions are intuitive."*

Interviewee 4 added that *"time and cost of tools"* are the main challenges, while **Interviewee 5** confirmed *"lack of technical knowledge, team resistance, cost, and lack of time."*

These similarities indicate that SMEs have internal (skills, culture) and external (costs, resources) constraints. Most employees and managers lack knowledge of interpreting data, and the leadership usually prioritizes the long-term survival over improvement.

Comparison to literature

The experience of **Interviewee 3** can be supported by the fact that Silva and Fernandes (2021) explain that most leaders of SMEs tend to make decisions based on intuition rather than facts. The issue of inadequate training and knowledge of their selection or use of indicators is discussed by Barbosa et al. (2020), which is in line with the concerns of **Interviewees 1 and 2**. The theory of cultural resistance to the change proposed by Hofstede (2001) is also applicable to the

evidence because a range of interviewees reported the resistance towards the new systems and processes. Oliveira and Alves (2019) outline the unavailability of technology infrastructure as another restraining factor that aligns with the statements of **Interviewees 1, 4, 5** on the cost of tools.

Discussion

Literature and findings are unanimous that SMEs encounter several challenges in the process of developing an indicator culture. The majority of the barriers are associated with the lack of skills, change resistance, and resources. This implies that the data is not always trusted and utilized even in the presence of the data. It means that the effects of controllership can be experienced only in the sphere of decision-making in case the companies working in the SME sector invest in learning and cultural change. Data literacy needs to be established and the attitude towards analytical tools should be encouraged to transform controllership into an integrative value-adding role instead of a reactive one. These barriers will be overcome, and SMEs will be more sustainable and competitive.

4.5 Theme 5: Leadership and Controllership in Organisational Transformation

Findings Quotes

Leadership emerged as a key factor in shaping how controllership is valued.

Interviewee 1 explained that leadership *"encourages the use of data and indicators,"* but controllership is still seen as *"an accounting addendum."*

Interviewee 2 said leadership *"started setting aside time for employees to study,"* showing an effort to build knowledge.

Interviewee 3 shared that *"leadership does not actively encourage data use; decisions are made at the top,"* reflecting a top-down culture.

Interviewee 4 mentioned that leadership *"encourages data-based decisions and inter-departmental collaboration,"* **Interviewee 5** said, *"Some companies were resistant to implementing the Bank's guidelines,"* showing inconsistency across organisations.

These results reveal that the leadership style is a determinant of the extent of influence of the controllability and performance indicators to make decisions. Where leaders encourage team work and education, the use of data becomes part of everyday life. In dictatorial or conservative leaders, information is disregarded.

Comparison to literature

According to Power (2008), trusted and predictable data are an essential ingredient of decision-making, and Lima et al. (2020) also argue that institutional support is necessary to modernise the management. These arguments are supported during the interviews, where the quality of the decisions made by leadership gets better where leadership invests in data governance **(as seen in Interviewees 2 and 4)**. The perception of cultural change by Hofstede (2001) is also applicable: the openness of leadership is important in establishing trust and minimizing uncertainty. The literature also holds that leadership must also match indicators with business strategy (Simons, 2000; Kaplan and Norton, 1996) which can be corroborated with the case of **Interviewee 4** where there was collaboration between the commercial and service departments to help cut back on the number of defaults.

Discussion

The key to success of controllership is leadership. The results indicate that SMEs have an improved coordination and based decisions when the data usage is supported by leaders. Controllership stops when the leaders block access to information or even disregard it. This is to show that the role of controller should be part of leadership strategy and not separate in the finance department. Both literature and interviews allude to the fact that to turn SMEs into learning and adaptive organisations, leadership engagement, data trust, and cross-departmental collaboration are all required. Consequently, leadership does not just empower the technical aspect of controllership but the cultural change that is needed in sustainable decision-making.

4.6 Summary

The study concluded that the controllability and the performance metrics have a substantial effect on the decision-making in SMEs, although their effectiveness depends on the capacity to integrate the indicators into the organisational culture and practice of leadership. The interdependence of interviews and literature demonstrates the fact that, even though the theoretical framework emphasises controllership as the driver of strategy (Anthony and Govindarajan, 2011; Simons, 2000), the practical application in SMEs is still incomplete.

Financial tools and indicators are applied in most SMEs, but they are not trained, collaborate, and supported by leaders. Systems that are driven by data are not always utilized because of resistance and mistrust. The best enablers of transforming controllership into a strategic function are leadership commitment, technical skills and cultural change.

Overall, controllership can influence the SME decision-making process by adding structure, enhancing accuracy, and fostering sustainability, however, only in case this is backed by informed leaders, trustworthy data and a culture of constant improvement.

Chapter 5-Conclusion

This study found that controllability and performance measure played significantly on the decision making in small and medium sized firms though the degree of influence varied with the maturity and culture of any business. The research discovered the fact that a significant number of SMEs valued the significance of controllership but did not have formal departments or formalised systems. The controllership functions in some instances were merged with the accounting or administrative functions, thereby restricting its power of strategy. This proved what the literature proposed that in absence of adequate structures, controllership would not be capable of providing full contribution to long-term planning and sustainability. The results also indicated that SMEs that embraced organized financial controls had a superior and well informed decision making than their counterparts who depended on their intuition.

It was also found that performance indicators were quite helpful in enabling managers to measure performance, contrast results, and tie decisions-strategic goals. Nevertheless, they were not efficient in their application and implementation. There were those companies that employed detailed indicators and those that did not employ any indicators. One of the weaknesses that were experienced was the absence of involvement of leadership in determining the indicators. The research thus found that performance indicators could only be used to reinforce decision-making when it was evidently connected to strategy and used uniformly.

Data-led decision-making and technology have been identified as an emerging trend, but they remained underdeveloped in the majority of SMEs. A significant number of the companies in the investigation had accounting software or ERP systems that they were not using to the full extent. Common issues were lack of training, error of data and cultural resistance. This

demonstrated the fact that the technological side of controllership was yet to invest in capabilities and systems. Analytics required leadership devotion and confidence in information in order to positively impact decision-making.

It was also found in the research that small and medium-sized firms had various difficulties when it came to establishing an indicator-based culture. These were high expensive costs of tools, lack of technical skill, lack of time and fear of change. Numerous employees and managers were not well versed on how to interpret the indicators and how to make a decision out of the indicators. Consequently, the making of decisions mostly remained an experience or guesswork instead of being an accurate data. This substantiated the fact that analysis thinking development in small organisations had to do with education and training.

It was identified that leadership was the most important issue that affects the efficacy of controllership. Controllership was an effective strategic tool when leaders promoted transparency, teamwork, and data utilization. However, in case of closed, rigid, or top-down leadership, controllership was low. This was consistent with the literature that focused on leadership as an influence in the organisational culture and facilitating innovation. It was also apparent that leaders are instrumental in fostering the data-driven mindset and proper utilization of performance indicators.

Limitations

There were certain limitations to the research. The limited number of only five participants gave it the difficulty to extrapolate the findings to all SMEs. The analysis was also restricted to qualitative data hence the results were based on personal experiences as opposed to statistical values. The scope of the research was also influenced by time constraint and

availability of more companies. Nevertheless, in spite of these flaws, the study was successful in meeting its objective of demonstrating the effects of controllership and performance indicators on decision-making.

Recommendations

The SMEs need to invest more in employee and leaders training on controllership and data analysis. They also ought to formulate specific performance measures in respect to strategic goals and utilize technology to facilitate real time decision making. This study may be enhanced by future research by incorporating more participants and employing a mixed method to integrate both qualitative and quantitative data. The research has pointed out that controllership and performance indicators are not the technical tools only but also the strategic resources which have the potential of enabling small and medium enterprises to be more sustainable, competitive and successful in the long-term.

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