

Factors Influencing Strategy Implementation: a Study in an Automotive Steering Company in Germany

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Abstract

Background: Although strategy planning is largely discussed, there is a lack of studies regarding strategy implementation. Extant research considers a limited set of constructs or is based on case studies, preventing generalisation. Also, recent studies that consider the role of managers of different hierarchical levels focus on a more specific context (e.g. digitalisation strategy).

Purpose: This research aims to assess the importance of facilitators for overall business strategy implementation in a manufacturing company, taking into consideration the perspective of different hierarchical levels within the company.

Study design/methodology/approach: Data from a questionnaire applied to respondents from different hierarchical levels of an automotive company was analysed using the Kruskal-Wallis test. The difference among the medians of the grades given by each level to the importance of each facilitator's dimension was checked. If a statistical difference was observed, the Dunn's post-hoc test was applied to identify which pairs of groups have statistically significant differences of perception.

Findings/conclusions: This paper corroborates some results from prior literature. Different hierarchical levels evaluate the importance of some dimensions of strategy implementation differently, such as dimensions related to internal communication and strategic alignment. These two constructs, together with management style, proved to be relevant for strategy implementation. Based on these findings, we offer practical recommendations for managers to improve strategy implementation. This research addresses factors not considered in prior research or only investigated in qualitative studies.

Limitations/future research: The study was carried out within one company in the automotive industry, with a small sample, which limits generalisation. Future research could explore this subject in different companies and industries, either in big or in small companies, and in companies with more horizontal organisational structure. Moderating variables and contingency theory could be used to investigate in which cases the involvement of each hierarchical level is more relevant.

Keywords

strategy communication; strategy implementation; hierarchical levels; employee perceptions; automotive industry.

Introduction

Strategy planning is not enough to guarantee superior performance within a company; strategy execution is just as important (Martin, 2010; Andreasson et al., 2024). However, leaders often do not invest as much energy, time and resources into executing a strategy as they do into creating it (Tawse & Tabesh, 2021; Holm et al., 2026). Extant literature has focused mostly on strategic planning, leaving a gap to be further studied (Ivančić et al., 2021; Butolen et al., 2025; Ranganai, 2025). This paper aims to analyse and understand factors that are important for strategy implementation.

One challenge is failing to cascade strategic planning across all hierarchical levels, down to the operational level (Ivančić et al., 2021; Tawse et al., 2024). Literature suggests that leaders from various levels should be studied collectively to better understand how leadership impacts successful strategy execution (Dias & Borges, 2017; Obembe et al., 2021; Andreasson et al., 2024).

Salih and Doll (2013) investigated the middle management viewpoints on strategy execution, discussing aspects that impact strategy implementation. Their research employs a qualitative interpretative approach based on 12 in-depth interviews, which prevents the generalisation of the results. Srivastava and Sushil (2016) showed that a proper alignment between organisations' structure and strategy is one of the most important tasks of strategy execution, since it drives the alignment of other factors, such as business units, policies and operations, to strategy. Their research does not include factors such as management style, communication and involvement of different hierarchical levels, as it is proposed in this present research. The strategy implementation throughout different hierarchical levels within a company was studied by Ivančić et al. (2021) considering four implementation factors: 1) People, 2) Resources allocation, 3) Communication, 4) Operational planning & control. In their research, however, there is a lack of explanation of the extrinsic and intrinsic factors related to the discrepancies found among different hierarchical levels.

The involvement of different hierarchical management levels in strategy implementation was investigated by Andreasson et al. (2024). They observed that middle management participation is more critical in unrelated or semi-related digital diversification initiatives, while

senior management involvement benefits related diversification projects. Their research focused on the implementation of digital strategies, not on general business strategy implementation and communication, and the constructs observed (e.g. technology, markets) were different than the ones proposed in this paper, because they are more related to the specific context studied by the authors.

Butolen et al. (2025) consider some critical factors to strategy implementation that are similar to the ones proposed in this research, i.e., organisational culture, organisational structure, performance management and resources, but they focus specifically on implementing sustainability strategies. Patalas-Maliszewska et al. (2025) also worked on a specific focus, investigating factors that can support the implementation of mass customisation (MC) strategy in small and medium enterprises.

Tawse et al. (2024) argue that strategy implementation (SI) research has historically taken a predominantly macrolevel approach, focusing on organisational structure and top management characteristics. By investigating the difference of top, middle and lower manager perceptions about strategy implementation, and by considering microlevel practical aspects, such as 'channels of the message' and 'problems that hinder understanding', this research provides a bridge between macro and micromanagement disciplines. This is theoretically important because it demonstrates how individual and team-level behaviours (microfoundations) contribute to organisational-level results. The aforementioned authors encourage continued efforts to bridge the gap between macro strategy and micro-level organisational behaviour, and emphasises the need for more work in defining the theoretical conditions of strategy implementation effectiveness.

To address these research gaps, this study assesses the importance of strategy deployment and implementation facilitators from the perspective of each hierarchical level in a company. A questionnaire was administered to respondents from different hierarchical levels of an automotive company to understand the perspectives of managers and employees regarding the factors that help or hinder strategy implementation. Six constructs are taken into consideration for strategy implementation: management style, strategic alignment, internal communication, hierarchical involvement,

resources availability, and feedback and control. Results are evaluated statistically using the Kruskal-Wallis test and Dunn's test.

This research expands the findings of previous literature, which focused mainly on the planning process. Studies focusing on strategy implementation (Hamdan, 2020; Ivančić et al., 2021; Andreasson et al., 2024; Butolen et al., 2025; Patalas-Maliszewska et al., 2025) aimed to understand the problems involved, yet they failed to address the gaps identified in this introduction. Besides addressing the macro-micro divide highlighted by Tawse et al. (2024), this study contributes to a more comprehensive multi-level implementation framework. First, it introduces a framework that accounts for differing perceptions across all organisational hierarchy levels, revealing systematic variations. Second, it integrates multidimensional constructs, including leadership involvement, communication, and feedback and control. While previous studies often focused on a single level, e.g., middle managers (Tawse et al., 2024), or on specific strategy types, e.g., digitalisation (Andreasson et al., 2024) or sustainability (Butolen et al., 2025), this research analyses the perspectives of higher, middle, and lower management, as well as associates, regarding overall business strategy implementation.

This paper starts with a literature review on the factors that impact strategy implementation and execution, alongside a definition of the research constructs. Next, it presents the research method and context. Finally, it outlines the study results, discussions, and conclusions.

1. Literature review

1.1. Basic concepts

In this paper, strategy deployment refers to the process of communicating the strategy to all the employees, preparing them for implementation (Pereira et al., 2019). This stage of the strategic process helps the staff involved in the future steps (such as implementation and execution) to understand the strategy, become interested in it and commit to the goals set. When the personnel involved are not mentally aligned, the strategy tends to fail in later stages (Salih & Doll, 2013).

Strategy implementation is the realisation of the organisation's strategy by means of projects or tasks (Mubanga & Lesa, 2024). It is the translation of the strategy planning into actions with a proper structure, design, resource planning

and allocation, and the management of strategic change (Amoo et al., 2019). Hambrick and Canella Jr. (1989) state that "without successful implementation, a strategic planning is but a fantasy".

There are key factors that influence strategy implementation, such as resource availability, communication, operational planning, and control and feedback (Obeidat et al., 2017; Nkosi, 2015; Butolen et al., 2025). Some authors consider that the most relevant hurdle for an effective strategy implementation is the lack of a good leadership (Cater & Pucko, 2010; Ivančić et al., 2021).

The majority of the literature perceives strategy implementation and strategy execution as synonyms, but some distinction between them can be made (Radomska & Kozyra, 2020). The implementation, as previously mentioned, is the act of turning the strategy planning ideas into reality. Strategy execution can be understood as the act of maintaining the already implemented strategy, modelling it and achieving progressive success. Strategy planning can be considered the first process, strategy deployment, the second, followed by strategy implementation and, lastly, strategy execution, that is, new strategies should be planned, well-communicated, implemented for the first time and then kept running for an adequate time horizon.

As part of strategy implementation and execution, the organisation needs to monitor and evaluate the current work, in order to provide inputs for future improvement (Simons, 1994).

Managers and leaders should be flexible and able to adapt, depending on the feedback received (Tawse & Tabesh, 2021); they should know what actions are most effective to surpass hurdles related to organisational culture, or even adapt and change the culture to align it with the objectives of the strategy itself (Lane & Clewes, 2000). The study from Ahmadi et al. (2012) showed that organisational culture exerts an important impact in strategy implementation. It was shown that all different types of organisational culture are related to the implementation, but they vary from a clan culture (the most effective for implementation) to a hierarchy culture (the least effective). A stable culture promotes partnership and teamwork among employees, supporting the idea that the team is working as a unity (Omese et al, 2019).

1.2 Recent literature trends on strategy deployment and implementation

A literature search within the last 4 years (2022 to 2025) was conducted in the Scopus database to identify recent trends in strategy deployment and implementation within manufacturing companies. The search string (“strategy implementation” OR “strategy communication” OR “strategy deployment” OR “strategy execution”) AND (manufacturing OR production) was applied to the field “Title, Abstract and Keywords” of the database Scopus, returning 121 papers in English (idiom considered). The papers went through three stages of filtering: first by title and abstract, then by reading the introduction and conclusion, and finally, by reading the full text. Two researchers did this work independently and resolved differences in consensus meetings. After scanning and filtering, 20 papers showed to be relevant to the general context of this research. Many papers were excluded because they mentioned strategy implementation without making it the main focus. Others were outside the manufacturing context or used mathematical models instead of discussing strategy deployment facilitators (e.g. mathematical model of a closed-loop supply chain to implement a sustainability strategy). Some studies focused on the quantitative impact on performance rather than a qualitative discussion of practices or facilitators. Finally, some full texts were not available.

The analysis of the retrieved papers showed that the most relevant research trend in strategy implementation is related to sustainability and green processes, found in 11 out of 20 papers.

Metha et al. (2025) investigated the influence of Systematic Strategic Planning (SSP) on the Sustainable Performance (SP) of manufacturing Small and Medium Enterprises (SMEs). They found that the components of SSP, i.e., strategic analysis, strategy creation, strategy execution, and monitoring and evaluation, improve SMEs’ economic, environmental, and social performance.

Similarly, Appiah et al. (2025) studied green process innovation in SMEs, using the resource orchestration logic to argue that a greater capability to manage and deploy green process innovation is a major contributor to financial performance of SMEs.

Wiratmadja et al. (2025) analysed how SMEs can integrate green strategies and innovative practices to achieve sustainability goals within the Sustainable Development Goals (SDGs) framework. The proposed model highlights the

importance of green competencies, including knowledge, skills, and attitudes, in fostering green innovation and manufacturing practices.

The hurdles in the implementation of green supply chain (SC) strategies are investigated by Zeidyahyae et al. (2024). They found that “inadequate government support”, “high investments for sustainability and less return-on-investments”, “old equipment and machinery”, and “lack of management commitment”, are the greatest barriers.

The gap in current research that usually focuses on strategy design rather than on practical execution is addressed by Butolen et al. (2025). Many organisations struggle to effectively implement sustainability frameworks due to a lack of strategic focus. The authors proposed a taxonomy of critical success factors (CSFs) for implementing corporate sustainability strategies in production companies. The taxonomy includes five dimensions: organisational culture, organisational structure, performance management, resources (including digitalisation and technology), and stakeholder integration (including sustainable supply chain management).

In the context of the circular economy (CE) strategy and product design, Diaz and Baumgartner (2024) proposed two artefacts: a strategy-structuring process and a strategy evaluation support. The artefacts were evaluated in the redesign of two different product types according to CE principles. The evaluation reveals the overall effectiveness of the strategy-structuring process. Besides, product planning teams that received feedback from the strategy evaluation artefact defined more granular strategy implementation roadmaps.

A second trend observed refers to the planning and implementation of digitalisation strategies, discussed in 4 of the retrieved papers.

Enterprise Strategy SaaS Platforms (Strategy SaaS) are a new category of software designed to facilitate Digital-Enabled Strategic Agility (DESA) (Kalgozas, 2023). The aforementioned author analyses the enablers of Strategy SaaS adoption and its impact on DESA through two manufacturing case studies. The results indicate that Strategy SaaS helps organisations sense, decide, coordinate, and execute their Open Strategy initiatives more effectively.

Patalas-Maliszewska et al. (2025) studied the factors that can support the implementation of mass customisation (MC) strategy in small and medium enterprises of the automotive sector. The

findings reveal that customer-led product design is the primary driver of successful MC. Furthermore, a strong correlation exists between the adoption of I4.0/5.0 technologies and advanced MC capabilities.

The co-design of digital transformation and sustainable development strategies is explored by Pauliuk et al. (2022), considering four hierarchical levels of society's material and energy use: product/process, process cluster, life cycle/material cycle, and economy-wide. They found that, while most digital transformation strategies focus on the product, process and process cluster levels, the sustainable development goals predominantly focus on the economy-wide level. Research is needed to align these two strategies to reach comprehensive societal goals.

Subsection 1.3 will discuss a recent paper on digitalisation strategy, as it focuses on different managerial hierarchical levels - a pillar of this research. Subsection 1.4 will then examine a recent study on leadership style.

Strategic agility was also discussed in few papers, as well as supply chain performance and supplier relationship.

1.3. Strategic deployment in different functions within a company

Organisations are often not able to decide whether the operational level should be involved in the strategic planning. The participation of all the hierarchical levels in the whole strategy process (definition of objectives, challenges, strategy policies) allows a synergy of different perspectives, knowledge and abilities (Oliveira, 2005).

The problems regarding involvement of different hierarchical levels in strategy execution could be divided into 3 subgroups, namely: insufficient or exaggerated senior management involvement, non-involvement of the middle level employees, and lastly, inadequate attitudes towards the strategic planning itself (Oliveira, 2005).

In project-based organisations, top-level managers often develop strategies that negatively impact operations, creating hurdles for project execution (Ansari et al., 2015).

Top management commitment has also been categorised as an important factor for the success of a strategy implementation (Shah, 2005). The need to coordinate a large number of people of different levels and different business functions

makes the process even more complex (Cândido & Santos, 2019). Top, middle and frontline management should be involved in the implementation, as well as operatives. If there is no integration of information, experience and previous knowledge gathered by all hierarchical levels, the strategy implementation will not succeed (Mantere, 2008; Shimizu, 2017; Tawse et al., 2024).

The dynamics of execution of related and unrelated digital diversification strategy in established firms is discussed by Andreasson et al. (2024). The multiple case study showed that key success factors for digital diversification strategies include technology, markets, management & organisation, and program execution. Regarding management and organisation, they observed the importance of middle managers' autonomous strategic behaviour to provide strategic responses to inappropriate or insufficient intended strategies. Moreover, they found that middle management involvement is more important in unrelated or semi-related digital diversification initiatives, while a bold senior management participation better fits related diversification projects.

In studies of semi- or unrelated diversification, senior leaders tried to interfere in the programs, but middle- and lower-level managers pushed back to limit this involvement, and the initiatives succeeded as a result. This success relies on operational agility and flexibility. These factors require a deep grasp of technical and market details that middle- and lower-level managers know best.

1.4. Previous studies related to the paper's aim

Salih and Doll (2013) employed a qualitative interpretive research approach to understand the middle management viewpoints about strategy execution. They demonstrated that management style, strategic alignment, internal communication and middle management contribution are crucial factors for strategy implementation. According to the authors, managers believe that one of the biggest obstacles are the required changes in organisational processes, systems, structures and culture, i.e., the challenge of managing change is emphasised. The employees view a participative management style as important for a successful strategy execution. Engaging important employees in the early stages of the strategic plan, being close to those who effectively implement the strategy, and including staff input and

perspectives have an impact on strategy deployment and reduce employee resistance.

An empirically tested framework of alignment for strategy execution was developed by Srivastava and Sushil (2016). Alignment is defined as tuning organisational factors to support the execution of a given strategy. Seven factors are considered: business units, resource commitment, policies, operations, organisation structure, best practices, and community orientation. The research used a total interpretive structure modelling (TISM). The results showed that seven factors of alignment are partitioned in five hierarchical levels. 'Organisation structure' had the most driving power, i.e., it influences all other factors of alignment. Thus, the first task for effective strategy execution should be the structure-strategy fit. The alignment of 'operations' with the strategy had the highest dependency (highest position in the model hierarchy). This shows that, instead of directly tuning the operations with strategic goals, companies should try to effectively align other factors (such as policies, resource commitment and best practices) with the strategy in order to obtain the operations-strategy alignment.

Ivančić et al. (2021) investigated the various ways with which employees from different hierarchical levels perceive the strategy implementation itself, in the context of large Croatian industries. They analysed over 208 employees' perceptions in 78 enterprises using questionnaires and considered four implementation factors: 1) People, 2) Resources allocation, 3) Communication, 4) Operational planning & control. There was a significant disparity between hierarchical levels' perception about two factors: communication and operational planning & control.

These differences occur due to intrinsic and extrinsic factors, such as involvement in the strategic process (formulation and implementation), degree of information possession and job experience. The lowest levels believe that the instructions for the implementation are unclear (lack of good communication) and also believe that their suggestions are not taken into account by the top-level employees. The bottom level thinks that changes regarding strategic points are not communicated to them on time, reducing their ability to adapt to it and execute the strategic plan.

Therefore, there is a poor flow of information among hierarchical levels. For an efficient

strategy execution, a 'strategy by practice' approach should be implemented involving all hierarchical levels. That could be done by a bottom-up approach to decision making and by developing the skills to be easily adaptive. That contradicts the reality in most companies, in which only the top levels are a part of the strategy formulation and the lower levels are responsible for its implementation, causing lack of alignment and a gap between formulation and execution.

Although not directly related to strategy, recent literature (Liu & Ibrahim, 2024) investigates the influence of leadership style and other factors to turnover intention in high-tech industry. Turnover may affect long-term growth and strategy implementation. The authors' findings reveal that both transactional and transformational leadership, and career development are significantly and negatively related to turnover intention. These factors lead to more satisfied employees, and it is reasonable to suppose that satisfied employees would better perform their functions, such as strategy communication and execution.

Transactional leadership is based on a "quid pro quo" principle, offering tangible rewards to motivate employees to work hard. Also, the manager points the direction of the employee's work. In contrast, transformational leadership involves managers inspiring and changing employee values to align with the organisation's goals (Bass, 1985; Liu & Ibrahim, 2024).

1.5. Theoretical framework

Many factors contribute to the failure strategy implementation, such as lack of commitment of the employees to the strategy, misalignment of strategy with organisational structure and culture, bad communication throughout the hierarchical levels and misalignment between plan and reality.

Six multi-dimensional constructs were extracted from the literature and brought up to this research, as shown in Table 1.

Management style is the way with which a manager plans, organises, delegates tasks, makes decisions and manages their staff in general, to achieve the objectives set. The participative style, as described by Salih and Doll (2013), is a style that inspires employee engagement, by being active in the implementation process, monitoring the tasks and giving inputs to the employees. The second dimension, encouraging style, is related to providing support to the staff, offering help and guidance when questions arise, as well as

stimulating the employees to bring their own ideas and to be creative. The third dimension, namely informed and aware, relates to the act of being aware and understanding completely the role, tasks and responsibilities of each and every employee, related to the strategy. These dimensions are somewhat related with the transformational leadership (Liu & Ibrahim, 2024), which is characterised by the ability of a manager to transform the values of their employees to achieve the goals of the organisation.

The second construct, strategic alignment,

relates to synergy among the agents in the process. Its first dimension is alignment of the strategic plans and core values of the organisation. The second is alignment of the company's expectation and employee's performance. The third dimension is mental alignment among the members; it measures if all of them agree with the way the strategy implementation is being handled and the tasks that are being performed to reach the goals. The fourth dimension is alignment between organisational units about aspects of the developed strategy and its implementation.

Table 1 Constructs and dimensions

Construct	Explanation	Dimension	References
Management Style	How managers work to achieve their goals	- Participative Style - Encouraging Style - Informed and aware	Salih & Doll (2013); Liu & Ibrahim (2024)
Strategic Alignment	How agents are aligned to each other	- Alignment of the strategy plans and core values of the organisation - Alignment of the company's expectations and employee's performance - Mental alignment among members - Alignment between organisational units	Salih & Doll (2013)
Internal Communication	How the message regarding the strategy is spread	- Leadership communication - Engaging communication - Transparent communication - Personal communication - Ongoing communication	Salih & Doll (2013); Obeidat et al. (2017); Pereira et al. (2019); Radomska & Kozyra (2020)
Hierarchical Involvement	How each level is involved in the strategy	- Involvement in the strategy development - Connection between lower and higher hierarchical levels - Understanding of the strategy - Clear responsibilities	Ivančić et al. (2021); Andreasson et al. (2024)
Resource Availability	If enough resources are available for the strategy	- Lack of resources - Time devoted to deployment versus time devoted to implementation	Gratton (1996); Ranjbar et al. (2013); Ho et al. (2014); Obeidat et al. (2017); Butolen et al. (2025)
Feedback and Control	Factors to monitor the implemented strategy	- Information systems to monitor implementation - Clearly defined and measurable performance standards for each strategy element - Regular monitoring of data and revision of the strategic decisions - Constant feedback from manager(s) - Remuneration and benefits	Obeidat et al. (2017); Radomska & Kozyra (2020); Liu & Ibrahim (2024); Butolen et al. (2025)

Source: the authors

The internal communication was the most commented construct in the study of Forman and Argenti (2005) when respondents were asked about factors that affect strategy implementation. Obviously, it is one of the most important factors for strategy deployment, i.e., its transmission to those who are involved in the process (Jiang & Carpenter, 2013). The first dimension considered here, leadership communication, is related to a

message that is transmitted with confidence and that promotes change/action. The second dimension is engaging communication, which makes the receiver more interested and engaged in the message. The third dimension can be defined as a communication that is clear and explicit about the objective, and that delivers all the relevant information for a good comprehension of the implementation process. The fourth refers to

the delivery of communication to small groups or even one-on-one, making the receiver to feel unique and important to the process. The fifth is an ongoing communication, delivered not only once but on a constant basis, helping the receiver to be aware of the current updates.

The hierarchical involvement, fourth construct, is divided into 4 dimensions. The first is involvement of the hierarchical levels in the strategy development, not only in the implementation. Strategy development is understood as the part of the strategic process in which the strategic options are identified and selected, and resources are allocated across the organisation. One hypothesis of this research is that being also active in the development positively influences the strategy implementation. The second dimension refers to the middle management, which should be responsible for the communication between higher and lower hierarchical levels. Salih and Doll (2013) came to the conclusion that the employees see the middle manager in a better position to advise the higher management and to help them to forecast possible factors that might hinder the strategy implementation. The third dimension of this construct refers to the understanding of the strategy process by employees of different levels. The fourth relates to the clear understanding of the employees regarding the responsibilities (scope and tasks) of their hierarchical level.

The fifth construct, resource availability, measures the perception of the parties regarding the availability of personnel, time and money for strategy implementation, and about the proportion of time devoted to deployment versus time devoted to implementation. Deployment is understood as the communication of the strategy to all the employees whereas implementation as the tasks and projects that aim to reach the strategic targets (see Section “Basic Concepts”). Obeidat et al. (2017) and Butolen et al. (2025) include this construct in their research (see subsections 1.1 and 1.2).

The last construct is control and feedback, employed by Obeidat et al. (2017) and Butolen et al. (2025). Its first dimension refers to IT platforms that help the employees to keep track of their progress on the tasks regarding the strategy implementation. The second dimension means the existence of goals that can be easily and objectively measured. The third dimension measures the importance of continuously assessing performance indicators regarding

strategy implementation and updating decisions accordingly. The fourth dimension aims to measure the importance for strategy implementation of the managers’ feedback to the employees regarding their progress on the tasks towards the strategic targets. The fifth dimension measures the influence of the financial and non-financial rewards given to employees to the effectiveness of the strategy implementation, and it is linked to the transactional leadership style (Liu & Ibrahim, 2024).

1.6. Originality and value

The literature review shows there is a lack of studies concerning the perception of the different hierarchy levels in the strategy implementation process. The existing studies either focus on the implementation of specific strategies (such as digitalisation, as in Adreasson et al., 2024) or focus in one hierarchical level (as in Tawse et al, 2024, which focus on middle managers). With a different focus, this paper contributes to the formulation of a framework taking into account the perception of different hierarchical levels within an organisation, concerning the implementation of overall business strategy in a manufacturing company. It also addresses specific gaps of previous studies regarding generalisation and constructs used, mentioned in the introduction.

2. Research method

This research aims to evaluate the importance of different facilitators of the strategy deployment and implementation, considering the perspective of each hierarchical level within a company. Thus, a research questionnaire was elaborated based on the constructs and dimensions discussed in the previous section, with represent these facilitators. The results of a prior research project, developed in 2020, in the same area of the company, were also considered for understanding the context of the problem and for elaborating the questions. In this previous project, reported by Izar et al. (2025), 39 semi-structured interviews related to the strategy implementation process were conducted in order to understand the current process execution and possible problems, in terms of employees’ perspectives.

2.1. Research site

The research site is a multinational technology and engineering company located in Germany.

The branch under study is the Automotive Steering division, with over 4,000 employees. It is divided into two business units, one responsible for vehicle components for passenger cars, and the other for commercial vehicles.

There are some reasons for this company to be chosen. This paper aims to analyse the perspectives of the employees according to their hierarchical level, and to understand how it influences strategy implementation. Thus, the first reason is that the company has all the hierarchical levels needed for a proper investigation and stratified analysis. Second, it has a strategy development and deployment processes well-established, complex, and involving several agents. Third, previous information about this process was already available due to the prior research project executed.

More specifically, although the single-company study design, the chosen company possesses the necessary structural complexity to allow for a stratified analysis. A smaller or more horizontal company would not provide the clear hierarchical distinctions needed to test theories regarding the 'poor flow of information' or 'discrepancies in perception' between the top and bottom of an organisation. The company's highly hierarchical and functional nature is informative because it inherently creates 'silos' and 'fragmented responsibilities'. These are latent theoretical factors that contribute to strategy implementation failure. By studying a company where these hurdles are well-established, the research can more effectively identify and measure facilitators like 'strategic alignment' and 'internal communication'. Thirdly, the company has a well-established, fragmented and multi-step strategy development and deployment process, featuring a series of specialized meetings (which will be mentioned in Subsection 3.1). This complexity makes it a theoretically rich environment to study the 'strategy by practice' approach, which argues that strategy implementation is not just about the plan, but about a social construction requiring integration of information and experience across all functions. Fourthly, the company is leader in its industry, which means that its business strategy is successful, and that strategy subjects matter, at least to the company's top managers. In this context, it is easier to obtain (qualitative) support for the research.

2.2. Selection of candidates

120 employees involved with strategy deployment/implementation from different areas and different hierarchical levels were selected for the study. Candidates from higher, middle and lower management, as well as associates (the lowest level), were selected. Higher management is responsible for the creation of a strategy path, and deals with collection and analysis of information inside and outside the company. Middle managers are usually seen as facilitators, removing hurdles and analysing needed resources. They also are involved with top-down and bottom-up information flow. Lower management is involved in different tasks, depending on the needs of the company. They are supposed to be the core of strategy execution, and associates are the ones who in fact should execute the proposed strategies. They follow instructions from higher hierarchical levels and translate planning into action (Ivančić et al, 2021).

The functional area of the candidates is diverse, including, but not limited to the following areas: Marketing and Business Strategy, Manufacturing, Logistics, Quality management, Sales and Controlling Planning and Project Management Organisation. The aim is to allow confronting and comparing different perspectives and viewpoints of distinct functions and hierarchical levels.

The selection of candidates was based on cluster sampling: researchers divide the population into smaller groups and randomly select individuals among these clusters. In this study, the clusters were defined by hierarchical level and functional area. Invitations to answer the questionnaire were sent to this sample of employees.

2.3. Research protocol

A research instrument with close-ended questions was applied. Some open-ended questions were also included to capture qualitative inputs from the respondents. Detailed information on the research design and question formulation can be found in the supplementary material.

The questionnaire was divided into 8 sections, 6 of which based upon the constructs previously explained. An opening section was added for the respondents' characterisation and a closing section gave the respondents the opportunity to provide any extra feedback and input for the researchers.

Anonymity was kept to avoid influencing the answers. The questionnaire was designed to be short, taking about 15 minutes to complete. Around 30 respondents were offered a one-to-one interview with the researcher to clear up any doubts, and 27 of them accepted.

The other 90 respondents were invited to a meeting to clarify the research and the reasons behind it, before the email with the self-administered questionnaire was sent. In total, 59 respondents took part in this meeting, 33 of whom answered the questionnaire. This brought the total of 60 answers out of the initial list of 120 candidates.

2.4 Constructs' assessment and questionnaire validity and reliability

A definition for each construct and each dimension was provided to the respondents in the questionnaire. They rated the importance of each dimension of the facilitators (shown in Table 1) based on a 5-point Likert scale ranging from "not important at all" to "extremely important". The construct "resource availability" was an exception and was evaluated by means of open-ended questions, yielding qualitative answers. Moreover, the answers about the construct "hierarchical involvement" were not considered in the Kruskal-Wallis test that will be mentioned in the next subsection, because different questions were formulated to each hierarchical level. These two constructs were analysed using content analysis and descriptive statistics, respectively, as will be shown in subsection 3.2.2. The dimensions of the remaining 4 constructs (totalling 17 dimensions) were assessed based on respondents' perception considering a 5-point Likert scale.

Face and content validity checks were carried out to confirm that the questionnaire was capturing the intended theoretical concepts. Content validity was assessed by an expert in Strategy (academic) not directly involved with the study. For face validity, a pilot study with 5 respondents was conducted to check if the questions seemed clear and relevant to the topic. They were also asked to 'think out loud' as they answered to catch any confusing wording. Then, some questions were rewritten, added, or excluded with the help of the marketing and business department manager of the division.

Regarding reliability, the internal consistency of the 4 aforementioned constructs was evaluated, but traditional metrics such as Cronbach's α yielded values around 0.50. However, this study

treats the constructs as formative rather than reflective, as each of the 17 items represents a distinct and non-interchangeable dimension of the phenomena being measured. According to Bollen and Lennox (1991) and Jarvis et al. (2003), for formative indicators, high inter-item correlation is not a requirement for reliability. In such cases, a low α does not indicate a lack of quality in the scale, but rather reflects the multidimensional and non-redundant nature of the indicators. Müller et al. (2021) specifically discuss how insisting on Cronbach's α for inherently formative constructs can lead to an erroneous and overly narrow representation of the subject of study. Therefore, the items of the questionnaire were retained based on their theoretical relevance and the content validity established in the original validation of the instrument.

Indeed, the Pearson's correlations between the 17 items were evaluated, and only two items from the same constructs showed some correlation (0.45). All the other correlations were smaller than 0.18. This was expected and shows that the dimensions are independent and formative. The heat maps of the correlations are shown in the supplementary material.

As an alternative to Cronbach's α , the formative dimensions of the 4 constructs (management style, strategic alignment, internal communication, and feedback and control) were evaluated based on their weights, significance, and multicollinearity. Given the relatively small sample size ($n = 60$), the analysis focused on both statistical performance and theoretical relevance. Although only six dimensions achieved statistical significance ($p < 0.05$) in all combination of regression tests (using one dimension as dependent variable and the remaining dimensions of the construct as covariates), all dimensions were retained in the final model.

This decision follows the guidance of Hair et al. (2017) and Diamantopoulos and Siguaw (2006), who argue that formative indicators should not be eliminated solely on the basis of statistical non-significance, especially in smaller samples where the power to detect significant weights is reduced. Since the Variance Inflation Factors (VIF) ranged from 1.02 to 1.35, indicating an absence of redundancy, each dimension provides a distinct theoretical contribution to the construct. Removing non-significant indicators in this context would alter the conceptual domain and diminish the content validity of the

constructs. The results of VIF analysis are presented as supplementary material.

2.5. Data analysis

The majority of the close-ended questions was based on a Likert Scale, therefore, the collected data is considered ordinal qualitative. All data was analysed first descriptively and then statistically. The nonparametric Kruskal-Wallis test was chosen, since the distribution of the data is non-normal and non-gaussian, and there were 4 independent groups to be analysed. If this statistic shows to be significant, multiple comparison nonparametric tests are useful for further analysis (Ostertagová et al., 2014). Thus, the Kruskal-Wallis test was followed by a post-hoc Dunn's Method, a nonparametric pairwise comparison procedure based on rank sums. Dunn's method is the appropriate nonparametric pairwise multiple comparison procedure when a Kruskal-Wallis test is rejected (Dinno, 2015). These statistical tests were carried out with the SPSS software. The few open-ended questions added to the questionnaire were compiled in different categories and were analysed qualitatively.

3. Research development

3.1. Problem description (existing context)

The company studied has a well-established yearly strategy development process, divided into 5 different meetings: Customer Strategy Meeting (CSM), Innovation Strategy Meeting (ISM), Business Unit Strategy Meeting (BSM), Divisional Strategy Meeting (DSM) and Value Stream Strategy Meeting (VSSM). Implementation takes place between these meetings, using inputs from prior meetings to build deeper knowledge and insight.

The Strategy Department manages and conducts the division's strategy planning process, which takes place before the meetings and is owned by the division board. The division holds a high-level management meeting twice a year. A brief description of the meetings follows:

- DSM: takes place at the end of the year, and gives input into the next year's process. It marks both the start and the end of the strategy cycle. Its main focus is market development, product strategy, and Business Unit's strategies;
- CSM: takes place in the first quarter of the year, and addresses customers' issues,

such as their requirements, development, and roadmaps. The goals focus on growth, profits, competition, and future innovation;

- ISM: proposes a consistent roadmap for market solutions at different levels, such as the industry where the company competes, the divisional level, and the Business Unit level. It aims to outline a plan for launching new products and scheduling their release dates;
- VSSM: handles the optimisation of the Value Stream design and its main elements. The focus of the VSSM is on the customer experience, and the goal is to define ways to provide optimal customer support;
- BSM: brings together Business Unit-specific strategies and discusses cross-Business Unit and Mobility Solution Sector topics. It decides on products, customers, and locations for each business unit. It serves as the main meeting to analyse how the sub-strategies work together as a whole.

As mentioned in the Section "Research Method", a previous research project was carried out at the company to understand the strategy implementation process through semi-structured interviews. The results of this previous project, together with the constructs drawn from the literature, were used as inputs to propose the questions. In the previous project, participants mentioned various problems related to strategy communication and implementation. The most common problem (cited in 38% of the interviews) was that the meetings held throughout the year were not connected enough.

In this prior research (Izar et al., 2025), the interviewees were categorised based on their understanding of the strategic process as a whole, including its specific phases and details. The 5 categories were: good and detailed view, good overview with a simple explanation of his/her part of the process, reasonable overview of the process, understanding of only their part of the process, and no understanding of the process at all. Although most of the participants were in upper management, 50% of the interviewees demonstrated no more than a fair understanding of the process. It showed a lack of understanding of the process as a whole. After the interviews, 29 problems were identified. Seeking to better understand the strategy implementation process,

this research took 8 problems from previous research into consideration (Table 2).

Table 2 Categorisation of mentioned problems

Category	Problems mentioned
Strategic Alignment	- Lack of understanding of some key players about their role and importance: some key players do not understand or accept their responsibility. - Lack of strategic alignment/integration: strategy of one area is not linked to overall strategy.
Internal Communication	- Discussion with higher management is not lean and down to the point: there is an excessive number of meetings. - Bad translation amongst areas, not taking into consideration that each area has their own needs.
Hierarchical Involvement	- Lack of involvement of all functions early in the process: "I was not involved in the process". - Lack of understanding of other hierarchy levels about the process: "I don't think the employees fully understand it". - Process is not lean and does not involve all the parties: difficulty to make it lean and at the same time involve different functions.
Resource Availability	- Issue with deployment: too much time spent on developing and selling the strategy, and not enough time for implementing it.

Source: the authors

It is clear that many problems noted by the participants relate to strategy implementation and, more specifically, to constructs found in the literature.

3.2. Analysis of the results

3.2.1. Demographic Characteristics of the Sample

Different hierarchical levels were analysed: associate (the lowest level in the company's hierarchical structure), lower management, middle management and higher management (the highest level in the structure). Basic characteristics of the sample are shown in Table 3. The hierarchical level of the respondents is fairly distributed, and the sample consists mostly of long-term

employees who have worked at the company for over 10 years.

Table 3 Characteristics of the sample

Hierarchical level	# of respondents	%
Associate	20	33%
Lower Manager	12	20%
Middle Manager	18	30%
Higher Manager	10	17%
Total	60	100%
Years in company	# of respondents	%
Less than 1 year	3	5%
1-5 years	10	17%
6-10 years	7	12%
Over 10 years	40	67%
Total	60	100%

Source: the authors

3.2.2. Descriptive analysis

Within the first construct, respondents were asked to rate the importance of 3 types of management style for the strategy implementation: participative, encouraging, and aware. The results showed that the encouraging style was the best rated; over 88% rated this style as at least 'very important' (Figure 1).

Most of the respondents considered all the 4 dimensions of the construct strategic alignment (Table 1) of high importance for a successful strategy implementation. From 67% to 70% of the respondents considered these dimensions as at least 'very important' (Figure 1). The dimension 'strategic alignment between colleagues' had its highest frequency on 'extremely important'. This is in accordance to the literature. Gibson et al. (2019) highlight that the consensus between colleagues significantly influences strategy performance.

Communication is the core of strategy deployment. Three Likert scale questions and one open-ended question were devoted to assess the respondent's view regarding the internal communication of the strategy. The respondents perceive a transparent message as the most important characteristic for an effective strategy deployment, followed by 'given with confidence'. The descriptive results regarding communication are shown in Figure 1.

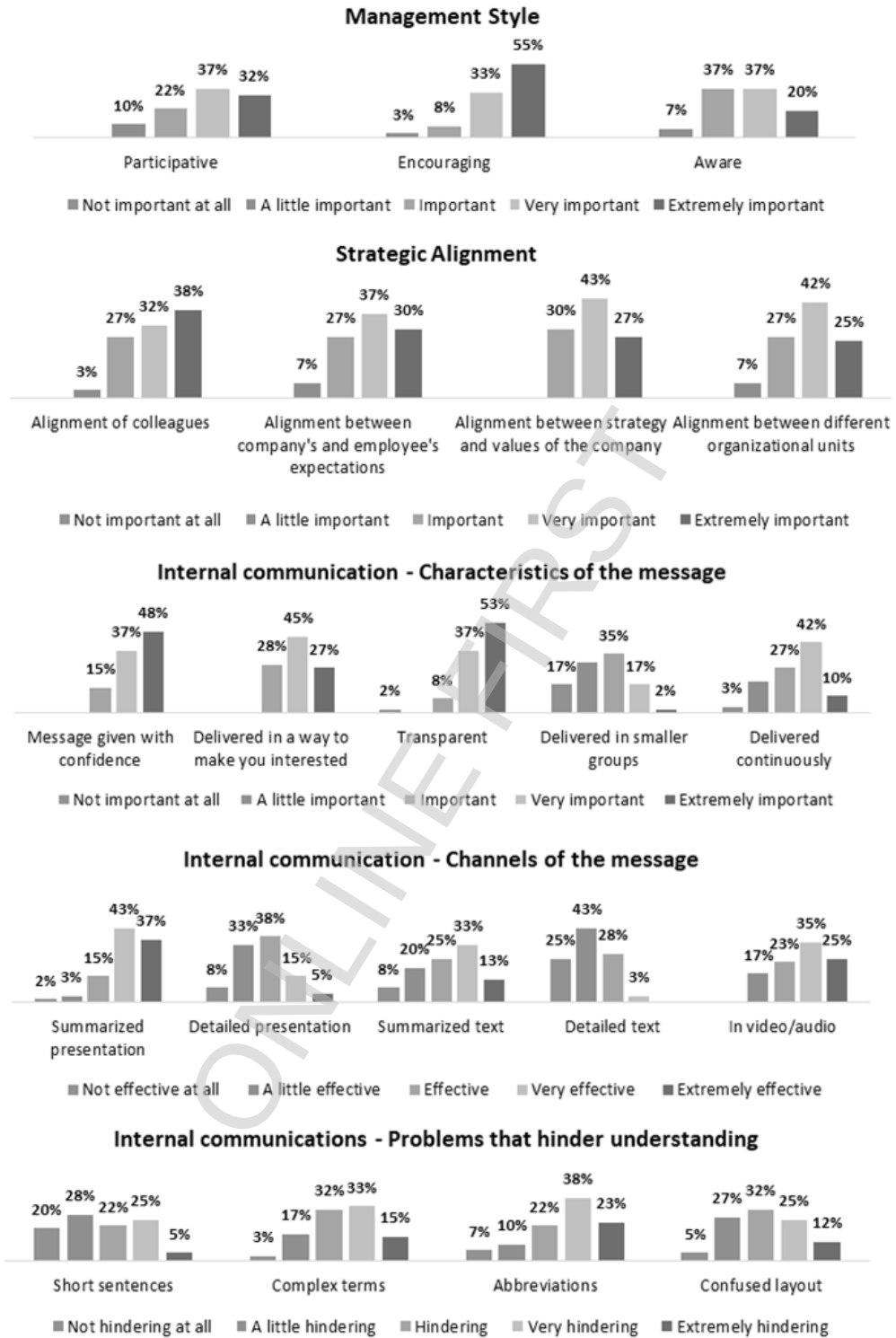


Figure 1 Statistical descriptive analysis of the constructs

Source: the authors

The second question focused on the effectiveness of each channel/format for deploying the strategy. The vast majority chose summarised presentations as the most effective form, indicating that workers understand the

strategy better when communication is visual and concise, keeping it as simple as possible. The second most effective channels was video or audio.

The third question aimed to understand the main problems that block employees from understanding the communicated strategy. According to the respondents, the biggest problem is complex terms. Over 61% rated this issue between ‘very hindering’ and ‘extremely hindering’. This problem was followed by abbreviations and a confused layout.

The last question on that matter was open-ended. It asked respondents to share any other problems or subjects they faced with strategy deployment. 55% of the participants answered this question. The answers with similar ideas were grouped under common labels. The main

problems mentioned by the respondents are shown in Table 4.

The perceptions about availability/lack of resources to strategy deployment and implementation were also evaluated by means of an open-ended question. The results are also shown in Table 4. There is a perception of a lack of resources for strategic projects, and the main focus is to overcome this hurdle by prioritising and allocating resources to the right projects/targets. Out of the most common resources (personnel, time, money, knowledge), time was mentioned the most, followed by a lack of budget.

Table 4 Strategy problems – Internal Communication and resource availability

Problems regarding internal communication (open-ended question)		
Labels	Example	Times mentioned
Too complex, lack of focus	"There are too many strategic items, therefore it's more complex than it should be."	6
Lack of understanding of the meaning or reasons behind the strategy	"Provide discussions and being able to explain the real meaning behind the strategy"	5
Lack of contextualisation	"I would like to know what my part is in the Company strategy."	3
Lack of time	"Not enough time for strategy communication."	2
Adapt according to audience	"The sender of the strategy does not consider the background of the office."	2
Responsibility not defined	"Communication is done by waterfall principle, responsibility not clearly defined"	2
Balance between too much and too little information	"The challenge is finding the balance between mandatory details and keeping the total amount brief"	2
Too repetitive	"Discuss the same thing over and over."	2
Usage of different language	"Use native language of plants"	2
Strategy different than reality	"Very often, strategy does not reflect the reality"	2
Problems regarding resource availability (open-ended question)		
Labels	Example	Times mentioned
Lack of all resources	"We are facing a general lack of resources, being partly compensated by high engagement"	7
Lack of time	"Documentations take a lot of time. High working level, so at the end of the day, lack of time."	6
Need of prioritisation	"So currently we need to prioritise the resources. The new structure helps."	5
Lack of money	"Strategic programs initiated by the company were not funded with their own budget/capacity."	3

Source: the authors

The fourth construct of the study sought to measure to which extent each hierarchical level was involved in the strategy development, and their understanding about aspects of this process. The questions were answered according to the hierarchical level of each respondent (respondents were divided into 4 groups).

55% of associate-level respondents reported understanding less than 70% of the strategic targets (Figure 2a). Meanwhile, 30% feel that their managers succeed in explaining no more than 70% of the strategy (Figure 2b). To feel motivated and grasp their responsibilities, they need a clearer understanding of the strategy.

Figure 2c depicts how important it is for 3 hierarchical levels to take part in strategy

development. The second group of respondents - lower managers - answered 2 closed questions on the topic. Half of them feel it is very or extremely important to be involved in strategy development, such as planning part of the strategy (setting the goals for example), and 83% believe it is very or extremely important for middle managers to connect them with upper management.

For the middle managers, 3 closed questions were asked. 84% of them consider it at least very important to be involved in strategy development, and only 44% rated lower-level manager involvement in this process as very or extremely important. Regarding the third question, 94% rated their role as a connector between lower and

upper management as being very or extremely important (Figure 2c).

For the fourth group, the higher managers, the same questions were asked. The results indicated that 90% think it is extremely or very important for middle management to be involved in strategy development, 80% think it is extremely or very

important for lower-level managers to be involved in strategy development, and 100% believe that middle managers should act as connectors between lower and higher management (Figure 2c).

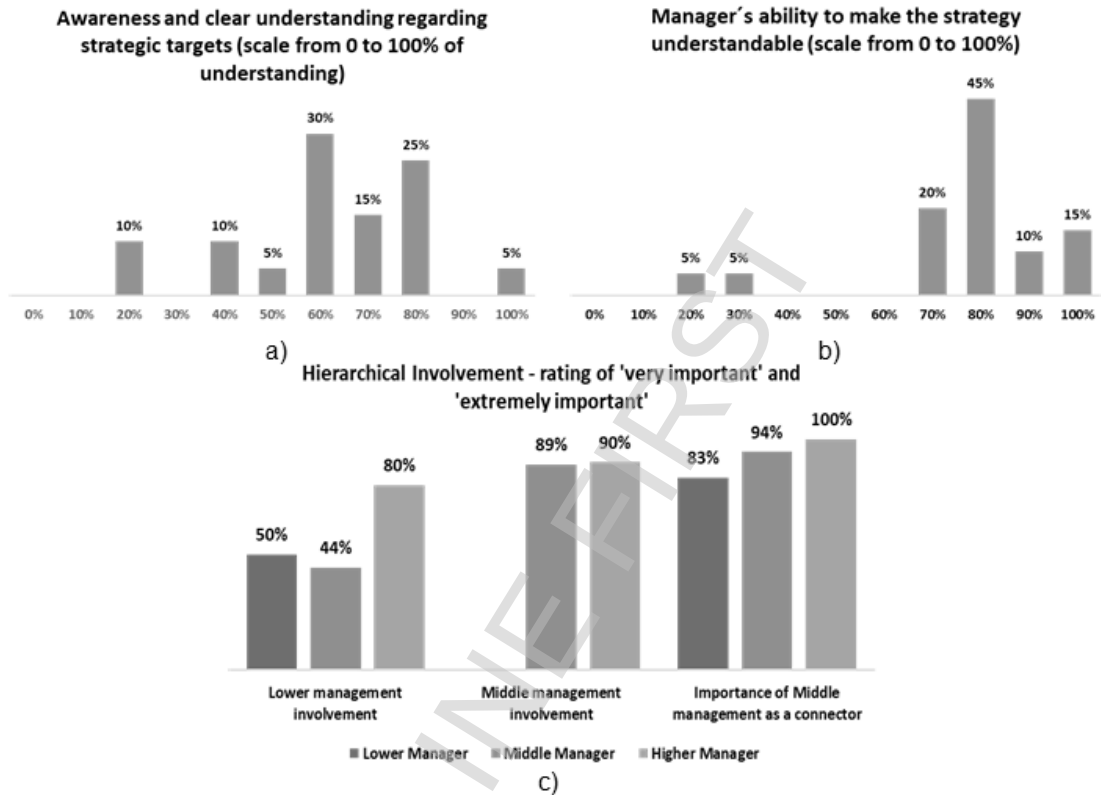


Figure 2 Hierarchical Involvement – a) Associates understanding; b) managers ability; c) perception of importance of hierarchical involvement
Source: the authors

In summary, both middle managers and other managerial levels recognise the critical nature of middle management's involvement and their role as a connector between upper and lower levels. However, perceptions regarding the involvement of lower-level managers diverge significantly. While most of high managers think it is very important to involve lower managers, only half of the lower managers themselves share this view, and less than a majority of middle managers recognise this importance.

The first question about the fifth construct (resource availability) aimed to evaluate perceptions of the time spent on strategy deployment and implementation. There is no clear consensus on whether enough time is being spent on deployment (communicating the strategy) and implementation: only 42% of respondents judge

the time spent on these stages as ideal, while 33% consider that not enough time is spent, and 25% think too much time is spent. Individual factors and also differences amongst the organisation units might explain the heterogeneity in the perceptions.

The following section of the questionnaire assessed respondents' understanding of the strategy and their role in its implementation. For the first 2 questions, they rated their understanding on a scale of 0 to 10; for the third, they estimated the percentage of time they spend on implementing the strategy. The results are shown in Figure 3 and Table 5.

The majority of the respondents (82/83%) rated their understanding of the strategy and their responsibilities as at least 7.0. However, only 50%

said they spent at least 70% of their time on strategy implementation.

For the sixth construct, feedback & control (see Table 1), the respondents rated the factors that most contribute to monitoring the implemented strategy, namely: supporting software, easily measurable goals, regular monitoring and revision, manager's feedback, and

compensation with money or benefits. The results showed that 75% of the respondents rated 'easily measurable goals' as very or extremely important, and 'regular monitoring' was ranked second. The other factors were similarly rated with a median of 3 (i.e. rated as only 'important').

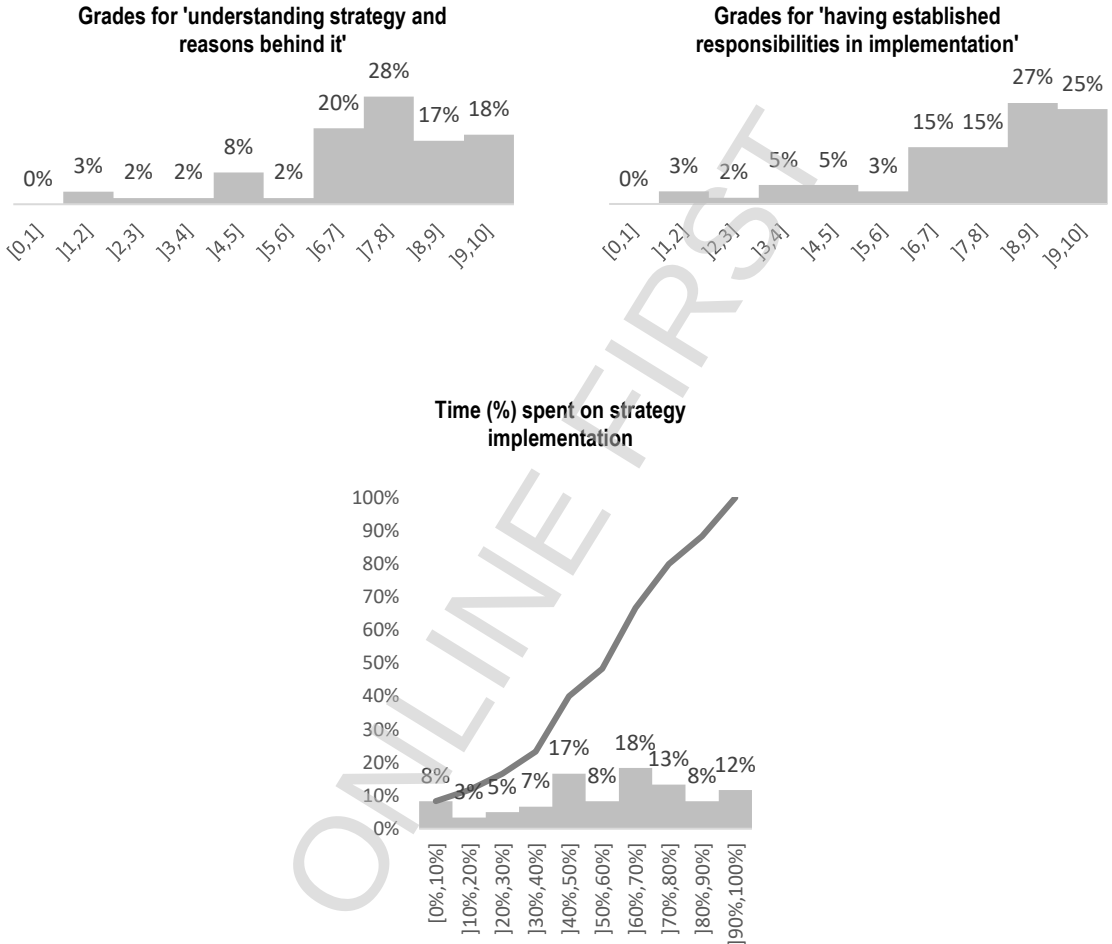


Figure 3 Strategy-related questions: understanding, established responsibilities and working time devoted to reach strategic targets
Source: the authors

Table 5 Descriptive statistics for strategy-related questions: strategy understanding and established responsibilities

Descriptive statistics	Grades for "understanding strategy"	Grades for "having established responsibilities"	Time (%) spent on strategy implementation
Mean	7,83	8,00	61%
Standard error	0,25	0,27	3%
Median	8,00	9,00	68%
Mode	8,00	10,00	70%
Standard deviation	1,94	2,11	27%

Sample variance	3,78	4,45	0,07
Kurtosis	1,22	0,78	-0,54
Skewness	-1,19	-1,22	-0,46
Range	8,00	8,00	95%
Minimum	2,00	2,00	5%
Maximum	10,00	10,00	100%
Sum	469,50	479,90	3656%
Count	60,00	60,00	60,00

Source: the authors

Lastly, respondents were asked to rank the 6 constructs of the study in terms of their importance to strategy deployment and implementation. The results are as follows (Figure 4).

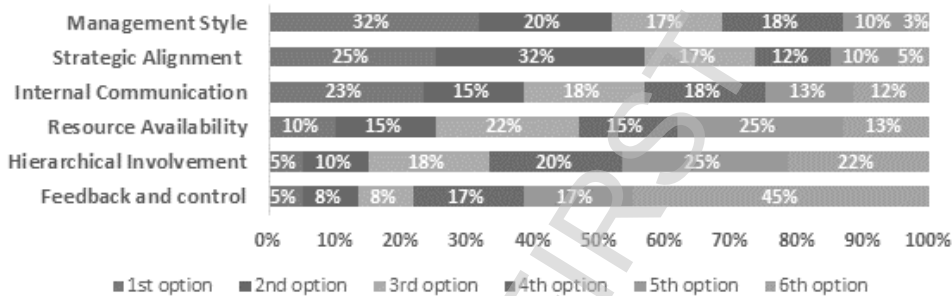


Figure 4 Importance of the constructs for strategy deployment and implementation

Source: the authors

The majority of the respondents placed greater importance on management style, followed by strategic alignment and communication. Thus, the critical factors for strategy deployment and implementation centre on people/leadership, and the construct of fit, rather on resources, organisational structure, or control procedures. This corroborates previous findings (e.g. Srivastava and Sushil (2016) attested to the importance of the overall construct ‘alignment’), but also diverges from them at a more detailed level. In Srivastava and Sushil (2016), organisational structure was seen as the most influential factor. In this present research, however, the factor related to organisational structure (hierarchical involvement) was considered less important than leadership/human-related factors.

3.2.3. Statistical analysis considering the hierarchical levels

This study also aimed to understand if different hierarchical levels perceive strategy deployment and implementation differently, as suggested by Ivančić et al. (2021). Therefore, a set of Kruskal-

Wallis tests (see the Subsection “Data Analysis”) was carried out, since the goal was to analyse 3 or more groups, focusing separately on each construct mentioned in the questionnaire. Thus, the following hypotheses were tested for each dimension of strategy deployment shown in Table 1:

- H_0 : The medians of the grades that assess the importance of different dimensions of the strategy deployment for the different groups of the population (i.e. high managers, middle managers, etc.), are equal.
- H_1 : At least one of the medians (for one group) is different than the others.

The results of the tests for the dimensions considered in this research are shown in Table 6. A significance level of 0.05 was adopted. Thus, an asymptotic significance of less than 0.05 allows rejecting the null hypothesis, showing that there is a difference of perception of at least one group (one hierarchical level) in relation to the others.

Table 6 Results of Kruskal-Wallis tests for the dimensions of the research

Independent-Samples Kruskal-Wallis Test					
Construct	Dimension	χ^2	df	$p^{a,b}$	ε^2 c
Management Style	Participative	7.139	3	0.068*	0.12100
	Encouraging	2.882	3	0.410	0.04884
	Aware	4.348	3	0.226	0.07370
Strategic Alignment	Mental alignment among members	8.356	3	0.039	0.14163
	Alignment of the strategy plans and core values	12.697	3	0.005	0.21520
	Alignment of co.'s expectations and employee's performance	4.753	3	0.191	0.08056
	Alignment between organisational units	3.900	3	0.273	0.06609
Internal communicat.	Leadership communication	16.022	3	0.001	0.27156
	Engaging communication	5.378	3	0.146	0.09116
	Transparent communication	2.023	3	0.568	0.03429
	Personal communication	3.820	3	0.282	0.06474
	Ongoing communication	5.031	3	0.170	0.08527
Feedback and control	Information systems to monitor implementation	0.549	3	0.908	0.00931
	Clearly defined and measurable performance standards	2.747	3	0.432	0.04655
	Regular data monitoring and revision of the strat. decisions	2.445	3	0.485	0.04144
	Constant feedback from manager(s)	0.886	3	0.829	0.01501
	Remuneration and benefits	7.626	3	0.054*	0.12925

a - the significance level of the tests is 0.050

b - asymptotic significance is displayed

c - italics in this column indicates moderate effect ($0.08 \leq \varepsilon^2 < 0.26$) and bold indicates strong effect ($\varepsilon^2 \geq 0.26$)

Source: the authors

In the context of a Kruskal-Wallis test, ε^2 indicates the proportion of variability in the ranked dependent variable explained by the independent variable (groups). It is a measure of the strength of association between the independent variable and the dependent variable (ranked data). Considering the thresholds shown in observation c of Table 6, moderate effects of the groups were observed for the dimensions 'participative', 'mental alignment among members', 'alignment of strategy and core values', 'alignment of company's expectations and employee's performance', 'ongoing communication', and 'remuneration and benefits'. A strong effect of the groups was observed for the 'leadership communication', i.e. each group strongly perceived this dimension differently. ε^2 is a more conservative measure than η^2 , used for small to medium samples. Thus, more specific thresholds for ε^2 were adopted (see obs. c) instead of commonly used thresholds for η^2 . All the medians (and also means and standard deviations) for each group and each dimension are provided as supplementary material.

The Dunn's Method allowed refining the Kruskal-Wallis results, i.e., to identify which group/groups has/have different perceptions (i.e. different medians for the grades given to each dimension). Pairwise comparisons using this method were carried out for all the cases in which the results of the Kruskal-Wallis test were below the significance level of 0.05 (highlighted in bold in Table 6) or were slightly above it (marked with * in Table 6). In the Dunn's Method, the samples

considered are: sample 1 for associates, 2 for lower managers, 3 for middle managers, and 4 for higher managers. Table 7 displays only the dimensions and samples for which the results were found to be statistically significant, that is, the results that are below the significance level. The results for all tests can be provided upon request.

The perceptions regarding the importance of different management styles were homogeneous, since all tests had a p-value greater than 0.05, as shown in Table 6 (i.e., there is no discrepancy among hierarchical levels regarding the dimensions of the first construct). However, the Dunn's Method showed that there is a difference between lower and middle managers' perception regarding the dimension 'participative' (Table 7): middle managers give more importance to it than lower managers.

For the first and second dimensions of the construct 'Strategic Alignment', the null hypothesis is rejected (Table 6). The results of the Dunn's Method applied to the first dimension showed that the associates and the lower managers place less importance to the alignment among colleagues/members than the middle managers (Table 7). Moreover, the associates' level tends to place less importance to the second dimension of alignment, 'alignment between strategy plans and core values', than the middle managers and the higher managers (tests 1-3 and 1-4, Table 7). The lower managers also place less importance to it as the higher managers (test 2-4), when the median is observed. The company's

strategy and its core values are 2 of the 4 pillars for Mission Model, as proposed by Campbell (1991). However, the results show that lower hierarchical levels do not place enough importance to this alignment as higher

hierarchical levels. This could indicate that the strength of the culture is lower for these low hierarchical levels, since they do not necessarily share the cultural values with the company (Schönborn, 2010).

Table 7 Dunn's Method results for the dimensions that presented Kruskal-Wallis results close to the significance level

Dunn's Method - pairwise comparisons							
Construct	Dimension	Samples compared	Test Statistic	Std. Error	Std. Test Statistic	Signific.	Adj. Signific. ^a
Management Style	Participative	2-3	-16.333	6.202	2.634	0.008	0.051
Strategic Alignment	Mental alignment among members	1-3	-12.039	5.362	-2.245	0.025	0.149
		2-3	-16.139	6.151	-2.624	0.009	0.052
	Alignment of the strategy plans and core values	1-3	-11.067	5.301	-2.088	0.037	0.221
		1-4	-21.500	6.319	-3.402	<0.001	0.004
		2-4	-16.517	6.986	-2.364	0.018	0.108
Internal communication	Leadership communication	1-2	-14.467	5.826	-2.483	0.013	0.078
		1-3	-19.883	5.184	-3.836	<0.001	0.002
		4-3	12.733	6.293	2.023	0.043	0.258
Feedback and Control	Remuneration and benefits	2-1	15.450	6.161	2.508	0.012	0.073
		3-1	11.408	5.482	2.081	0.037	0.224

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.

Asymptotic significance (2-sided tests) is displayed. The significance level is 0.050.

a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

Source: the authors

The null hypothesis was retained for almost all dimensions of the third construct, 'internal communication', except for the first dimension (Table 6). Table 7 shows that associates hold a different perspective compared to lower and middle managers (tests 1-2 and 1-3), while middle and higher managers also have contrasting views (test 4-3). Associates assigned a lower score to the importance of leadership communication. Additionally, the median score given by middle managers is higher than that of higher managers. Although this is not viewed as important by the lowest and highest hierarchical levels, confident communication of strategy by leaders is argued to be more effective, mainly when for subordinates who lack full awareness of the entire process (Vidal & Möller, 2007). The results show that the two intermediate management levels of the company recognise this importance.

Feedback and Control was the last construct analysed. All of its dimensions presented a p-value greater than 0.05 for the Kruskal-Wallis test (Table 6), suggesting that the perceptions across the hierarchical levels are not statistically different. However, the last dimension, 'remuneration and benefits', was taken into consideration for a post-hoc test, and a difference amongst the answers of the associates' and the

lower management levels was observed. Compensations with money or benefits are more important for associates than for lower and higher managers. This corroborates some findings from the literature. Managers want a workforce with high productivity and adaptability, whereas employees seek strong skill development followed by competitive compensation (Delany & Turvey, 2007). Also, according to Bagraim et al. (2007), employees are motivated by different factors, such as financial, professional, and personal goals, while incentives, such as remuneration and benefits, can influence employees' behaviour.

Harunavamwe et al. (2013) found that for lower-level employees, merit pay is one of the top 3 influential factors for work motivation. Therefore, managers should understand their employee's reward priorities. Otherwise, a mismatch may occur between the strategy managers use and the motivational rewards employees actually prefer (Arnolds et al., 2007).

3.2.4. Summary of the results

A summary of the results based on the data analysis of Sections 3.2.2 and 3.2.3 can be found in Table 8.

Table 8 Main results

Dimension	Descriptive analysis	Analysis among hierarchical levels
Management Style	Encouraging style was the best rated. (88% of respondents rated it as very or extremely important)	Middle managers place more importance to "Participative Style" than lower managers.
Strategic Alignment	Alignment of colleagues was the best rated (as extremely important by 38%).	Mindset of colleagues: Associates and lower managers place less importance than middle managers. Alignment between strategy and company's values: Associates place less importance than middle and higher managers.
Internal Communication	Characteristics of the message: Transparency is most important. Channel for the message: Summarised presentation is the preferred channel; Problems in the message: Complex terms were the most hindering factor.	Associates' level tends to place less importance to a message given with confidence in comparison to higher hierarchical levels.
Hierarchical Involvement	Higher hierarchical levels tended to perceive the involvement of lower managers in strategy development as more important than did the lower managers themselves.	Does not apply.
Resource Availability	There is a lack of resources (time, money, personnel) or constraints in them. Resources need to be prioritised.	No discrepancy was found.
Feedback and Control	Easily measurable goals is the most important factor.	Being compensated with money or benefits is more important to associates than to higher hierarchical levels.

Source: the authors

Strategic adaptation to internal and external changes is very important for strategy realisation, and overlooking it can lead to failure (Mintzberg & Waters, 1985). The role of middle and lower managers in this process is emphasised by Mirabeau and Maguire (2014), Andreasson et al. (2024), and Tawse et al. (2024). These managers play a vital part in responding to gaps in planned strategies, as they spot situations and needed adjustments that senior leaders might miss. This study supports those findings, highlighting that middle and lower managers do not just execute strategy - they also help communicate it.

Aligned with prior literature, the findings advocate more decentralised communication and decision-making processes, in which middle- and lower-level managers, with knowledge of operational realities and technical details, have a key role. This could lead to more dynamic, proactive strategy communication and execution.

The results are also aligned with recent research on leadership style and turnover.

Transactional leadership (Liu & Ibrahim, 2024) is linked to the dimension "remuneration and benefits" of the construct "Feedback and control", while transformational leadership (Liu & Ibrahim, 2024) is related to the "participative" and "encouraging" management styles considered in this research. As discussed in section 3.2.3, in the case of strategy deployment, the lowest hierarchical level places more importance to transactional leadership (remuneration and benefits), while middle managers value more a transformational leadership style.

Based on the three different data analyses carried out, namely, descriptive statistical analysis (DS), non-parametric statistical tests, i.e., Kruskal-Wallis test and Dunn's test (KD), and qualitative analysis (Q), good practices/managerial recommendations for strategy deployment and implementation were elaborated (see Table 9). The last column indicates the source of the recommendation and the origin of the evidence.

Table 9 Recommendations to managers regarding strategy communication and implementation

Construct	Recommendations/Good practices for strategy communication implementation	Evidence/ Source
Management Style	Prioritise this factor (set managerial attention into it)	DS
	Choose managers that have an encouraging or participative leadership style (transformational leadership)	DS
Strategic Alignment	Prioritise this factor (set managerial attention into it)	DS
	Foster integration and alignment among colleagues and functions, especially in the level of middle managers	DS, KD
	Disseminate well the company core values/culture to the operational level (they do not see the importance of the alignment between these values and the strategic initiatives)	KD

Internal communication	Prioritise this factor (set managerial attention into it)	DS
	Focus on few important strategic topics, keep it simple	Q
	Communicate the strategy with transparency (showing the reasons and real meaning) and confidence	DS, Q
	Prefer a summarised presentation as the format for communicating the strategy, complemented with video/audio	DS
	Avoid complex terms and abbreviations and corporate jargon	DS
	Ensure that leaders communicate well the strategy, inducing action (middle and lower managers consider it important)	KD
	Reserve/plan time on employees' schedule for strategy communication	Q
	Adapt the message and the language according to the audience	Q
Hierarchical involvement	Involve lower and middle managers in strategy planning, rather than just communication and execution	DS
	Show to/persuade lower managers that their involvement is important (they do not see this importance as higher managers see)	DS
Resource availability	Reserve/plan time on employees' schedule for strategy implementation	Q
	Provide financial resources for the priority strategic projects	Q
	Clearly indicate what the priorities are regarding resource allocation to strategic initiatives	Q
Feedback and control	Set easily measurable goals to strategy implementation and monitor them regularly	DS
	Link strategic goals accomplishment to remuneration and benefits to the operational level (associates)	KD

Source: the authors

Some recommendations from Table 9 are already specific, especially the ones related to internal communication (e.g., ‘prefer a summarised presentation as the format for communicating the strategy, complemented with video/audio’) and the ones related feedback and control (e.g. ‘link strategic goals accomplishment to remuneration and benefits to the operational level’). Furthermore, to bridge the ‘macro-micro divide’ (Tawse et al., 2024) mentioned in the introduction, and align perceptions, the following training is suggested:

- Collaborative Planning Sessions: rather than just communicating a finished plan, organisations should involve middle and lower managers in the strategy formulation itself. This reduces the ‘halo effect’ (Tawse et al., 2024) and ensures the plan reflects operational reality;
- Leadership Style Training: organisations should train managers in transformational leadership - specifically the ‘encouraging’ and ‘participative’ styles - which were the most highly rated for driving successful implementation;
- Skills Development for Adaptivity: training should focus on making employees easily adaptive to changes. This involves moving toward a ‘strategy by practice’ approach where decision-making is more decentralised, allowing those with technical and operational knowledge

to provide strategic responses to shortcomings in the original plan;

- Feedback Loops and Measurable Goals: Managers should be trained to provide constant feedback and use information systems that allow employees to monitor their own progress toward easily measurable goals.

Additionally, different methods can be used in the trainings, according to the hierarchical level. For lower-level employees, where the goal is to connect their daily tasks to strategy and improve bottom-up communication, the following can be used:

- Gamified Simulations: use digital platforms or board games where workers see how their speed/quality affects company profits;
- Visual Strategy Maps: replace long documents with infographics in breakrooms showing the ‘Line of Sight’ from their job to the customer;
- ‘Street-Level’ Communication Workshops: focus on active listening and how to report obstacles (red flags) clearly to supervisors;
- Micro-learning: 5-minute video bursts or mobile quizzes on new strategic goals to keep info fresh without pulling them off the floor.

Middle managers must translate executive goals into actionable team plans and manage resistance. To this aim, the following is recommended:

- **Change Management Labs:** role-playing exercises where they practice delivering "hard news" or new strategic pivots to sceptical teams;
- **Objectives and Key Results Training:** training on how to set measurable targets that align with the CEO's vision;
- **The 'Communication Cascade' Method:** workshops on how to filter information—knowing what to share, when, and how to make it relevant to their specific department;
- **Cross-Functional Peer Groups:** regular meetings with managers from other departments to break silos and understand the 'Horizontal Strategy'.

For higher managers, it is relevant to refine strategic thinking and cultural alignment, which can be fostered by:

- **Scenario Planning Workshops:** high-stakes sessions where they must adapt the strategy to 'What If' disasters (e.g., a sudden market crash or new tech);
- **Executive Storytelling:** training on move away from 'Data Dumping' (PowerPoints) to narrative-driven leadership that inspires the workforce;
- **Strategic Intuition Retreats:** Using case studies from other industries to spark "out of the box" thinking and prevent industry-blindness.

Conclusions and contribution

There is a lack of documentation to support research and practice on strategy implementation, as much research has focused on strategy planning. While this has improved in recent years, there is still a need for more research focused specifically on implementation.

The idea that different hierarchical levels perceive the strategy deployment and implementation differently is true considering some dimensions of some constructs. The hypothesis that employees from distinct levels perceive the importance of strategic alignment differently was confirmed for the dimensions

"mental alignment among members" and "alignment of the strategy plans and core values" based on Kruskal-Wallis and Dunn's tests at significance level of 0.05. Based on the same tests, the importance of the dimension "leadership communication", from the construct internal communication, was also perceived differently.

Associates and lower managers place less importance on alignment among colleagues, and between company strategy and values, than middle and higher managers. Regarding internal communication, the biggest discrepancy involves messages delivered with confidence; lower levels tend to place less importance on that attribute than higher levels do. Results on feedback and control of strategy implementation also show that associates place more importance on remuneration and benefits than higher levels do, i.e., lower, middle and higher management.

In-depth qualitative research is recommended to explore why these different perspectives exist. This research should examine internal/external and intrinsic/extrinsic factors that shape how various stakeholders view the strategy. Key variables might include their level of involvement in developing the strategy or their dependence on managers. Understanding these dynamics can help implement more precise models that account for different hierarchical levels and other relevant variables.

This paper contributes to academic literature by analysing the perspectives of different hierarchical levels regarding strategy deployment and implementation, which is rarely addressed in prior research. Earlier studies did not consider certain constructs and dimensions that are introduced for the first time in this research (i.e., remuneration factors, characteristics of the message, among others), or they focused on a different context for strategy implementation (e.g. the implementation of digitalisation strategies).

The combination of descriptive analysis, statistical results, and qualitative findings led to managerial guidelines that make strategy deployment and implementation more effective. Key actions include adopting an encouraging management style with transparent messaging, aligning team members, persuading lower managers to get involved, setting easily measurable goals, and linking achievements to remuneration for the operational level. These steps can improve strategy implementation for this company and others around the world.

Limitations of the study

One of the limitations is that the research was conducted with a single company from the automotive industry. The results might differ for other industries, as well as for different companies in terms of size, culture, and location, compared to the one studied. Besides that, stakeholders from companies with different hierarchical structures might have different perspectives on strategy implementation. The organisational structure of the company under study is highly hierarchical and functional, leading to silos, fragmented responsibilities, and difficulty of grasping the whole context of the strategy. These latent factors were mentioned by the respondents in the qualitative questions. Another latent factor might be the perception of a skills gap, i.e. the perception that employee skills are insufficient to execute the new strategy. Some of the company's strategies involve significant innovation, such as digitalisation and autonomous cars, and not all the competences for that may be available.

Regarding industry-related cultural differences, technology companies and startups might focus on agility, 'failing fast', and tend to present flat hierarchies. Companies from the finance sector and banking tend to be conservative, risk-averse, and more hierarchical. In manufacturing, the focus might be set on operational efficiency, safety, and well-defined processes. Thus, in technology companies or startups, a new strategy can be seen as an opportunity for innovation, and perceptual differences about strategy implementation among hierarchical levels or among different functions tend to be more subtle or to nonexistent. In regulated sectors, a new strategy may be perceived as a threat to compliance, leading to 'friction'. Thus, perceptual differences regarding strategy implementation among hierarchical levels tend to exist, as observed in this study, and might be more pronounced. In more open cultures, strategies might be more socialized and, if communication is already more effective (due to lateral links and informal communication), respondents may value strategic alignment more than the construct of internal communication, for instance. An aggressive expansion strategy aligns naturally with a competitive sales culture. However, in energy or infrastructure, that same strategy might be viewed as reckless, causing internal pushback from middle management. These differences might limit generalisation and can be investigated by industry-specific studies with large samples.

A relevant limitation of this research is related to the number of responses obtained. Although the initial list of respondents had 120 candidates, only 60 responses were collected, which prevents generalisation.

Future research

As mentioned in the limitations' section, future research could explore this subject in different industries, as well as in small companies. Perceptual differences between hierarchical levels can be investigated in companies with flatter (horizontal) organisational structures or in industries with different dynamics, such as the technology or service sectors. The other latent factor mentioned, i.e., the skills' gap, or the skills that need to be developed for the new strategies' implementation, should be considered. Moderating variables (e.g. formal or informal communication structures, industry dynamics and uncertainty) and the contingency theory should be considered to investigate in which cases the involvement of each hierarchical level is more relevant. The studies could be done simultaneously in different companies, with higher number of respondents, to analyse different organisational and regional cultures and allow generalisation.

Declarations

Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

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