Formation of an Innovative Mechanism for Strategic Control at an Enterprise

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Abstract. *The article examines the theoretical and methodological foundations of strategic controlling as a key element of the enterprise management system. The relevance of the topic is demonstrated by the necessity to illustrate the efficacy of strategic management in the context of digital transformation, wherein conventional approaches to planning and control are becoming less flexible and efficient. The objective of the present study is twofold: firstly, to ascertain the role of strategic controlling in ensuring the adaptability and stability of the enterprise; and secondly, to develop methodological approaches to improving its tools. The present study employed a range of methodological approaches, including systemic, structural-functional, comparative, and analytical techniques, to ascertain the correlation between strategic planning, control mechanisms, and managerial decision-making processes. The findings indicate that strategic controlling functions as an integrative conduit between the strategic and operational echelons of management, thereby augmenting the efficacy of strategy implementation. Innovative approaches to the implementation of controlling mechanisms have been developed, incorporating modern business analytics technologies, integration platforms, and flexible management methodologies such as Agile and OKR. This paper explores the use of business presentation technologies (Power BI, Tableau, and other BI-based tools) in the transformation of analytical data into visually clear and interactive strategic reports. The implementation of these technologies has been demonstrated to enhance internal communication, optimise transparency in strategic decision-making processes, and expedite the feedback cycle among management levels. Moreover, the study emphasises the importance of incorporating artificial intelligence technologies into strategic control systems. This integration ensures a transition from reactive to proactive strategic management, fostering innovation and continuous improvement in enterprise performance. The article's practical value lies in its potential to facilitate the creation of a digital strategic control system. This system would provide analytical support for management, improve decision-making efficiency and enhance the enterprise's competitiveness in the market.*

Keywords: *strategic controlling, enterprise, management, innovations, digital technologies, business presentation.*

JEL Classification: *M10, O21, O32, O33*

1 Introduction

In the context of globalisation and the digital transformation of the economy, enterprises are operating in an increasingly uncertain and competitive environment. These conditions necessitate the adoption of new management approaches that ensure the efficient use of resources and flexible adaptation to changes in the external environment. Strategic controlling is therefore becoming increasingly important as an integrative strategic management tool that combines analytical, planning, control and coordination functions.

Modern enterprises need to shift from traditional control models to proactive strategic management

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systems that focus on forecasting, the early identification of risks, and data-driven decision-making. In this context, strategic control is not just a means of monitoring strategy implementation, but an intelligent management mechanism that ensures alignment between strategic goals, operational activities and overall business performance. This emphasises the importance of this research topic.

The novelty of the study lies in its consideration of strategic control as a dynamic decision support system that incorporates digital technologies, analytical tools and forecasting methods into the architecture of enterprise management.

The study aims to describe the role of strategic controlling in enterprise management systems, and to develop methodological principles for innovatively enhancing them in the context of the digital economy.

In order to achieve this objective, it is necessary to clarify the essence and functional role of strategic controlling in enterprise management; to examine modern innovative mechanisms of strategic controlling; to determine the organisational and technological principles of its implementation; and to formulate directions for improving controlling processes through the use of digital platforms.

The methodological basis of the research incorporates systemic, analytical, comparative, and structural-functional methods, thereby facilitating a comprehensive examination of strategic control processes. The material is presented in a logical sequence, commencing with the theoretical understanding of the essence of controlling and concluding with practical approaches to improving its tools through the implementation of digital technologies, integration solutions, and analytical platforms.

The objective of this study is to establish a comprehensive understanding of strategic controlling as a contemporary management analytics system. This system is designed to ensure effective strategic management, facilitate the digital transformation of business processes, and enhance the long-term competitiveness of enterprises.

2 The Place of Strategic Controlling in the Enterprise Management System

Controlling constitutes an integral component of modern management, particularly in large enterprises where structured planning and cost management are of crucial importance. The primary objective of controlling is to ensure the effective utilisation of enterprise resources, thereby enhancing its profitability and competitiveness.

Strategic controlling is a fundamental management tool that enables continuous monitoring and evaluation of the implementation of strategic plans. Its purpose is twofold: firstly, to analyse past decisions, and secondly, to ensure flexibility and adaptation to changes in the external environment.

Various scholars have offered different interpretations of the concept of "strategic controlling". For example, John Preble (1992) defined it as a forward-looking process that enables organisations to adapt their activities in response to changes in the external environment, thereby ensuring the achievement of long-term objectives. Michael Goold and Andrew Campbell (1993) argued that strategic control helps businesses balance financial and competitive priorities while ensuring coordination across organisational divisions. Raman Muralidharan (1997), meanwhile, conceptualised effective strategic control as a system comprising four key elements: the formulation of strategic outcomes; the specification of strategic actions; the definition of monitoring methods; and the identification of corrective intervention mechanisms. In his seminal work, Levers of Control, Robert Simons (1994) described strategic controlling as a system of managerial levers designed to stimulate strategic renewal and maintain alignment between organisational strategy and actions. Peter Horváth (2007) emphasised that strategic controlling supports strategic management by providing decision-making information critical to ensuring the enterprise's long-term success. In turn, Hitesh Bhasin (2021) highlighted its role in facilitating organisational adaptation to internal and external factors, thereby contributing to the achievement of strategic goals.

In recent years, strategic controlling has acquired new forms and significance in the context of dynamic market conditions and digital transformation. The aforementioned definitions highlight the significance of this mechanism in enabling enterprises to adapt to change, achieve strategic objectives, and sustain competitiveness in the market.

Within the enterprise management system, strategic control plays an integrative role. Rather than representing an isolated function, it permeates all management levels, aligning strategic goals with operational activities. Strategic controlling is positioned between strategic planning and operational management. Strategic planning establishes the overarching direction for enterprise development, delineating the mission, vision, and long-term objectives. Conversely, strategic controlling serves to evaluate the efficacy with which these objectives are being realised (Cambalikova A. and Misun J., 2017).

Furthermore, strategic control plays a feedback role in the management process. It analyses the results of strategy implementation, identifies potential risks and indicates when revisions are necessary. By acting as a "radar", it enables management to respond promptly to any deviations, threats or emerging opportunities.

The coordinating function of strategic controlling is equally important. It ensures that goals are aligned across various levels of management. Strategic guidelines are translated into specific tasks for structural units, their contribution to the overarching strategy is evaluated, and consistency with the approved strategic direction is maintained.

Finally, strategic controlling serves as a decision support tool. By providing management with relevant analytical information, it helps them to assess strategic effectiveness, adapt to changes in the environment, and make balanced, innovative strategic choices.

3 Innovative Mechanisms of Strategic Controlling

Innovative mechanisms of strategic controlling include modern tools and approaches that enable not only the monitoring of strategy implementation but also its real-time adaptation to changes in both the internal and external environment. In the context of digital transformation and intensifying competition, traditional methods are no longer adequate. Consequently, strategic controlling must be characterised by flexibility, analytical capability, and a proactive approach (Munck J. et al., 2020).

One of the key trends is the use of business intelligence (BI). BI platforms integrate extensive datasets from various sources, such as ERP, CRM and financial systems, into interactive dashboards that allow users to monitor strategic KPIs. This enables controllers and executives to track the dynamics of critical indicators in real time and base decisions on accurate analytical data.

A novel approach within the domain of strategic controlling involves the utilisation of business presentation technologies that are underpinned by BI platforms, such as Power BI, Tableau and Qlik. These tools facilitate the automated generation of interactive presentations, encompassing key strategic KPIs, scenario models, and forecasts. The utilisation of these tools has been demonstrated to facilitate interdepartmental communication, accelerate decision-making processes, and enhance transparency in the implementation of strategic initiatives.

Another important mechanism is dynamic budgeting and rolling forecasts. These involve updating financial plans continuously in response to new data and market changes. This approach replaces the traditional annual budget, which can quickly become outdated in a rapidly changing environment.

Integrated strategic maps (e.g., within the Balanced Scorecard framework) are also widely applied. These maps encompass not only financial metrics but also non-financial factors, including digital maturity, ESG indicators (environmental, social responsibility, corporate governance), and the innovative capacity of personnel.

This paper sets out a novel approach to risk assessment in strategic controlling. The approach involves scenario planning supported by artificial intelligence and predictive analytics. The utilisation of such models by organisations facilitates the development of alternative strategies in the event of unforeseen developments.

It is equally noteworthy that flexible management methodologies (Agile, OKR) are being applied within strategic controlling. Rather than adhering to inflexible long-term objectives, these frameworks adopt an iterative approach, incorporating frequent sprints, transparent reporting mechanisms, and rapid goal adjustments in response to environmental changes.

Among other innovative tools of strategic controlling are the following:

– Benchmarking, which involves comparison with industry leaders;

– The Balanced Scorecard (BSC), which provides a comprehensive performance evaluation;

– Gap analysis, which identifies discrepancies between actual and targeted results.

Benchmarking is a powerful strategic control mechanism. It involves comparing an enterprise's key performance indicators with the best practices of its industry or direct competitors. The main aim is to identify gaps in productivity, efficiency or innovation and then implement changes to improve competitiveness. Strategic indicators for benchmarking may include return on sales (ROS), market share, the customer satisfaction index (CSI), the average time taken to fulfil orders, the cost of customer service, and the number of innovations introduced per year.

The Balanced Scorecard is a systematic framework for evaluating the effectiveness of an enterprise across four perspectives: financial, customer, internal processes and learning and development. It establishes a coherent link between strategy and operational activities. Within the BSC framework, various categories of indicator are employed to enable the creation of an integrated control system, where all elements complement each other and strategic goals remain aligned with operational objectives.

Gap analysis is another essential tool in strategic control. It identifies the discrepancy between the current state of enterprise performance and the desired outcomes. As well as detecting problems, gap analysis aims to propose actionable measures for addressing these discrepancies.

The gap analysis process in strategic controlling involves several stages. Firstly, clear strategic benchmarks are established, such as increasing market share to 25%, achieving a 15% profit margin, or reducing delivery times to 24 hours. Subsequently, the enterprise's current state is evaluated based on management accounting data, key performance indicators (KPIs) and operational performance monitoring. The identified strategic gap (i.e., the discrepancy between planned and actual indicators) is then evaluated in terms of depth and criticality. Finally, specific measures have been developed to address this gap, which may include investments in automation, the introduction of new marketing strategies, optimisation of logistics processes, or staff training programmes. In this context, the term "controlling" is understood to encompass not only the implementation of corrective actions but also the evaluation of their economic efficiency and the overall impact on the achievement of strategic objectives.

4 Improving Organisational Support and the Use of Digital Technologies in Strategic Controlling at the Enterprise

In contemporary business environments, strategic controlling assumes a pivotal function in the realisation of an enterprise's long-term objectives. The effectiveness of such systems is contingent upon organisational support, which encompasses structural elements, functional characteristics, interdepartmental relationships, and the flow of information (Elbanna S., 2016).

At the enterprise level, a range of measures is recommended to enhance organisational support for strategic controlling (Fig. 1).

The establishment of a dedicated structural unit for strategic controlling would allow the enterprise to centralise responsibility for overseeing long-term objectives. A unit of this nature should comprise analysts, economists and IT specialists, the responsibility of whose function is to monitor strategic indicators. The distribution of functions must be clear and effective, encompassing strategic planning, forecasting, deviation control, and coordination with other departments. This will enhance the efficiency of managerial decision-making and mitigate risk (Yeboah O.-W. et al., 2023).

Controlling should not be confined to ex post analysis; rather, it must assume an active role in the formulation of strategy. The provision of analytical support at the planning stage is a key feature, with the identification of risks and resource requirements being a particular emphasis. Controlling enables timely adjustments to actions during implementation in response to internal and external changes, thereby creating a continuous feedback loop that strengthens organisational flexibility and adaptability. Integrating controlling into the strategic management system is of fundamental importance.

Integration implies that the control function is engaged not only in monitoring the execution of the strategy, but also in its formation, adaptation and correction.

The professional development of personnel is another key factor in the effective implementation of control functions. Employees must be proficient

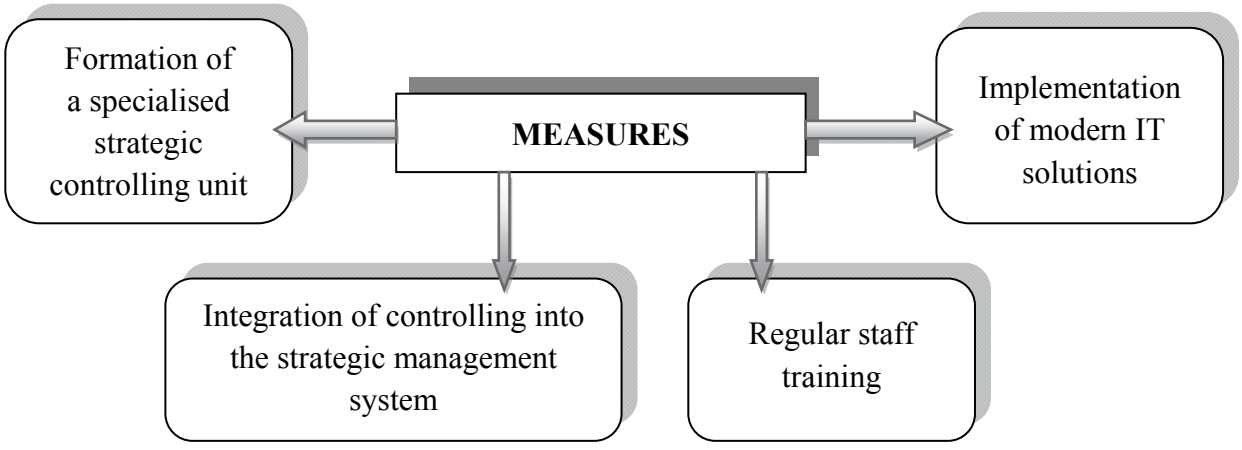

Figure 1 Measures to improve the organisational support of strategic controlling at the enterprise

Source: (Yeboah O.-W. et al., 2023; Bhasin H., 2021)

in modern strategic analysis tools and familiar with methodologies such as SWOT analysis, PEST analysis, GAP analysis and scenario forecasting. Internal training programmes, seminar participation and certification courses are crucial for cultivating a deeper understanding of strategic processes and fostering an analytical culture within the organisation.

The development of a technical foundation for an integrated digital strategic controlling platform should be carried out in several stages:

Stage 1. Defining strategic goals.

The enterprise must clearly define the objectives of the platform, which typically include:

– increasing management transparency;
– supporting international projects;
– improving analytics for strategic decisions.

Stage 2. Forming a project team.

The team should consist of a strategic management specialist, an IT architect, and a data analyst.

Stage 3. Choosing a technological basis.

A strategic controlling platform can be created based on ERP systems (SAP, Microsoft Dynamics 365), BI solutions (Power BI, Tableau, Qlik) and integration solutions (Zapier, Make, API gateways).

The selection of a suitable platform is predicated on a comprehensive consideration of the intricacies inherent to the industry in question, encompassing the client base, the dynamics of planning, the quality of service, and the operational efficiency. The following comparative analysis of solutions is presented in Table 1.

The most effective approach is to combine BI solutions with integration tools. This provides efficient strategic control at minimal cost and enables the automated collection of data from diverse sources, such as CRM systems, Excel spreadsheets and financial systems. It also supports the creation of analytical dashboards and ensures scalability without incurring excessive ERP-related expenses.

It is recommended that the development of a unified digital platform for strategic control be undertaken concurrently with the implementation of systems for the creation of business presentations (Prezi, Canva for Business, Microsoft PowerPoint with BI data integration). This integration facilitates the presentation of controlling results in a convenient format for management, shareholders and international partners.

Business presentation technologies function as the final stage of the controlling cycle. This is characterised by the collection and analysis of data, the delivery of which is then presented in the form of strategically comprehensible maps, graphs and interactive models. Such an approach has been demonstrated to enhance not only the effectiveness of communication but also the level of trust in managerial decisions.

Stage 4. Continuous improvement.

In order to ensure the continued effectiveness and relevance of the strategic controlling platform, it is essential to implement systematic updates.

In Ukraine, the regulations pertaining to taxation, customs, and reporting requirements are subject to frequent revision. Consequently, the platform should promptly integrate new APIs of governmental systems such as tax services (DIIS, USR), customs registries, or electronic document management (e-PRO, e-excise). This integration serves to minimise reporting errors caused by outdated data.

Table 1 Comparative analysis of strategic controlling platforms for the enterprise

Criteria	ERP systems (SAP, Microsoft Dynamics 365)	BI solutions (Power BI, Tableau, Qlik)	Integration solutions (Zapier, Make, API)
Purpose	Comprehensive management of all business processes	Analytics, reporting, visualisation	Automation and connection of various services
Business scale	Large business	Medium and large business	Small and medium business
Implementation cost	High	Moderate	Low
Implementation time	Long	Medium	Short
Flexibility and scalability	High, but difficult to configure	High	Very high
Ease of use	Low without training	Relatively simple	High
Process automation	Full integration	Limited	Flexible
Controlling capabilities	Built-in tools	Deep data analysis, KPI	Limited, depends on connected services
Integration support	Built-in or via API	Via connectors or API	Core functionality

Source: (Bryce E., 2024)

Given the dynamic nature of business, analytics must reflect current challenges. Expanding platform functionality may include integrating new services: API connections with logistics providers (Nova Post, Delivery Auto, DHL, UPS) or incorporating data from market research agencies (e.g., GfK Ukraine).

It is imperative that updates are always accompanied by rigorous security checks, particularly when financial data are involved.

5 Conclusions

The research undertaken confirmed that strategic controlling is a fundamental component of the enterprise management system, integrating the functions of planning, monitoring, evaluation, and correction of strategic decisions. The effective implementation of the aforementioned strategy ensures good adaptability, transparency of management processes, and enhanced competitiveness of the enterprise.

The enhancement of strategic controlling is contingent upon the integration of analytical methodologies with contemporary digital technologies, including business analytics, integrated data platforms, automated KPI monitoring systems, and data visualisation tools. Strategic controlling is not confined to a monitoring function; rather, it provides the foundation for sustainable development by ensuring the implementation of business initiatives in accordance with the enterprise's long-term objectives.

One of the most promising directions for future development is the creation of intelligent strategic controlling systems based on artificial intelligence.

Furthermore, it is imperative to enhance approaches to evaluating the effectiveness of controlling, taking into account the principles of sustainable development. This process entails the extension of the conventional system of evaluating management performance, thereby encompassing parameters that extend beyond financial indicators. In contemporary conditions, the effectiveness of control can no longer be measured solely by profitability or cost optimisation. Furthermore, it encompasses the enterprise's ability to maintain a balance between the economic, environmental, and social aspects of its operations in accordance with the principles of sustainability. Consequently, strategic controlling can evolve into a multifaceted instrument: serving not only as a mechanism for performance monitoring, but also as a catalyst for fostering responsible and sustainable enterprise development.

Therefore, strategic control should be transformed into an all-encompassing enterprise management system that combines forecasting, analytics and operational flexibility to provide a comprehensive decision-support tool.

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