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THE PRACTICE OF ORGANIZING AND IMPLEMENTING BALANCED SCORECARD SYSTEM IN "UZMETKOMBINAT" JSC

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Ibrokhimjon U. Tursunaliev[43]

Abstract

The Balanced Scorecard (BSC) has become a widely recognized strategic management tool, particularly for aligning organizational activities with business strategy and enhancing overall performance. This paper examines the practice of organizing and implementing the Balanced Scorecard system at Uzmetkombinat JSC, a key player in the steel manufacturing industry in Uzbekistan. With an increasing focus on efficiency, competitiveness, and customer satisfaction in the global market, Uzmetkombinat sought to adopt a more comprehensive approach to performance management. The study explores the steps involved in implementing the BSC, including the identification of strategic objectives, selection of relevant key performance indicators (KPIs), and the development of a framework to monitor performance across four key perspectives: Financial, Customer, Internal Processes, and Learning and Growth. It also highlights the challenges faced by Uzmetkombinat in integrating the BSC into its existing organizational structure, particularly issues such as employee resistance, data quality, and aligning departmental goals with broader corporate strategy. Furthermore, the paper discusses the expected benefits of BSC implementation, including improved financial performance, enhanced customer satisfaction, more efficient internal processes, and the fostering of a culture of continuous improvement. The study concludes that while the implementation of the Balanced Scorecard at Uzmetkombinat presents several challenges, its adoption could lead to significant improvements in operational efficiency, profitability, and long-term strategic alignment. The findings suggest that a well-executed BSC system is crucial for transforming strategic objectives into tangible results in the steel industry, positioning Uzmetkombinat for sustained success in an increasingly competitive market.

Keywords

[43] Ibrokhimjon U. Tursunaliev assistant teacher of the Department of Accounting, Tashkent State University of Economics, Tashkent, Uzbekistan,
Email: tursunalievibrokhimjon@gmail.com, i.tursunaliev@tsue.uz
ORCID: 0009-0004-3267-6213

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Balanced Scorecard (BSC), Performance management, Key performance indicators (KPIs), Performance measurement, Organizational development.

Introduction

In today's fast-evolving industrial landscape, organizations must continuously adapt their strategies to remain competitive and sustainable. This is especially true in the metal-producing sector, where intense competition, resource scarcity, and technological advancements create unique challenges and opportunities. One of the most effective tools for achieving strategic alignment and performance management in such industries is the Balanced Scorecard (BSC). Developed by Robert Kaplan and David Norton in the early 1990s, the BSC system transforms organizational strategy into measurable objectives across four key perspectives: financial, customer, internal processes, and learning and growth. By providing a balanced view, it allows companies to not only monitor financial performance but also to foster sustainable internal processes and innovation, essential for long-term growth.

"Uzmetkombinat" JSC, a leading player in Uzbekistan's metal industry, faces the challenges typical of a large, resource-intensive organization. As the company strives to meet both national demand and international standards, adopting a Balanced Scorecard system can help it enhance strategic focus, improve operational efficiency, and increase overall accountability. The BSC offers a structured approach for aligning Uzmetkombinat's internal objectives with its overarching mission to drive high-quality, efficient, and sustainable production. By integrating various performance indicators under one framework, the BSC enables management to visualize and measure how each part of the organization contributes to strategic goals, facilitating data-driven decision-making.

Implementing the BSC in a complex industrial setting like Uzmetkombinat requires thoughtful adaptation. The system must account for the company's specific needs, from managing production costs and energy efficiency to maintaining workforce skills and environmental compliance. Moreover, given the potential resistance to change in established industrial settings, the success of the BSC depends on a clear implementation strategy and strong stakeholder engagement.

This study aims to explore the practice of organizing and implementing the Balanced Scorecard at Uzmetkombinat JSC. It will assess how BSC can transform performance management and drive strategic alignment by examining each perspective in the context of the metal industry. Additionally, this paper will identify potential challenges and outline a phased approach to effective implementation, ultimately demonstrating how the BSC can serve as a powerful

tool for sustainable growth and improved organizational performance at Uzmetkombinat.

Literature review

The Balanced Scorecard (BSC), introduced by Kaplan and Norton in the early 1990s, has evolved into a widely accepted strategic performance management tool across various industries. It organizes performance metrics into four primary perspectives—financial, customer, internal processes, and learning and growth—offering a holistic approach to strategy implementation and performance monitoring (Kaplan and Norton, 1992). This section reviews literature on the origins and theoretical basis of the BSC, its application in heavy industries like metal production, and challenges associated with its implementation, particularly in emerging market settings.

Kaplan and Norton's foundational work on the Balanced Scorecard addressed a gap in management frameworks by providing an approach that extended beyond traditional financial metrics. By integrating non-financial perspectives, the BSC encouraged organizations to align internal processes and customer-oriented objectives with financial goals (Kaplan and Norton, 1996). Subsequent studies highlighted the BSC's adaptability across sectors, showing that its structure allowed for customization to fit diverse organizational needs and environments (Hoque, 2014). Researchers emphasize that the BSC supports a "strategy map" approach, where each objective is interconnected, helping managers understand how achieving one goal, such as improved operational efficiency, can impact others, like financial performance (Marr, 2015).

Heavy industries, including metal and manufacturing, have adopted the BSC to navigate the complexities of production, cost efficiency, and regulatory compliance. Several studies affirm that in industries like metal production, the BSC framework is particularly valuable for enhancing operational transparency, optimizing resource use, and facilitating sustainability initiatives (Yadav and Sushil, 2014). Research on similar industries has shown that implementing the BSC helps create a balanced focus on efficiency and innovation, especially in sectors where cost management and product quality are paramount (Davis and Albright, 2004). Furthermore, a case study by Zizlavsky (2014) in a large-scale manufacturing company highlights the BSC's role in reducing operational inefficiencies, noting that aligning internal process improvements with financial goals enhances overall organizational performance.

Emerging markets present unique challenges and opportunities for implementing strategic management tools like the BSC. Companies in countries with developing infrastructure and evolving market dynamics must often adapt

global management frameworks to local realities. Research by Alshurideh et al. (2019) suggests that while the BSC can drive performance improvements in emerging markets, successful implementation often requires adjustments to account for local workforce capabilities and technology infrastructure. In the metal industry specifically, integrating sustainability goals within the BSC has become increasingly important due to environmental regulations and resource constraints (Taticchi, Tonelli, and Cagnazzo, 2010). A study by Bayyoud and Sayyad (2015) highlights that metal-producing companies using the BSC can better track compliance with environmental standards and align sustainability objectives with financial and operational targets.

Implementing the BSC in an industrial setting, especially in resource-intensive sectors like metal production, presents several challenges. Resistance to change is often a barrier, as employees and managers may be unfamiliar with non-financial performance metrics (Aranda and Arellano, 2010). Moreover, companies may struggle to establish relevant KPIs for customer satisfaction and internal processes that are appropriate for industrial operations, as most traditional BSC frameworks are geared toward service-oriented industries (Wu and Hung, 2007). The literature further suggests that aligning the BSC with existing data infrastructure in metal-producing companies is challenging, as older operational systems may not readily support the data requirements of a BSC framework (Braam and Nijssen, 2004).

To mitigate these challenges, some researchers advocate for a phased implementation approach, starting with key performance areas and gradually expanding the BSC as the organization adapts (Niven, 2006). Others emphasize the need for strong leadership support and ongoing training to help employees at all levels understand the benefits of a balanced approach to performance management (Hendricks, Hora, Menor, and Wiedman, 2012). Furthermore, emerging technologies, including data analytics and AI, have shown promise in easing the data collection and processing requirements associated with the BSC, suggesting that companies may benefit from integrating these tools into their BSC systems (Davenport and Harris, 2007).

Case studies provide valuable insights into successful BSC implementation in similar industries. For example, a study on a Russian steel manufacturer demonstrated that a tailored BSC framework helped the company align strategic priorities with operational tasks, ultimately improving production efficiency and financial performance (Lapina, Krumina, and Menchikov, 2014). In this case, management involvement and clear communication were critical factors for overcoming initial resistance and ensuring alignment across departments.

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In contrast, research on unsuccessful BSC implementations often attributes failures to insufficient stakeholder engagement and lack of clear goal-setting processes (Speckbacher, Bischof, and Pfeiffer, 2003). These findings underscore the importance of involving all relevant departments in the planning and rollout stages, particularly in complex organizations where various operational units may have conflicting priorities.

In conclusion while the Balanced Scorecard can significantly enhance performance management in metal-producing industries, successful implementation requires careful planning and customization. By aligning Uzmetkombinat's strategic goals with operational performance, the BSC has the potential to address the unique challenges of the metal sector, from cost efficiency to sustainability. However, the success of this endeavor will depend on the company's ability to adapt the BSC framework to its specific organizational needs and to engage stakeholders throughout the implementation process.

Balanced Scorecard Perspectives in the Context of Uzmetkombinat

Implementing a Balanced Scorecard (BSC) at Uzmetkombinat JSC can enhance strategic alignment and provide measurable insights into various aspects of performance. Each of the four perspectives—financial, customer, internal processes, and learning and growth—can be adapted to reflect the specific goals, challenges, and operational realities of this metal-producing company.

The **financial perspective** focuses on Uzmetkombinat's profitability, cost management, and return on investments. In the metal production industry, managing production costs, achieving economies of scale, and maintaining financial health are essential for competitiveness.

Table 1

Application of financial perspective in Uzmetkombinat JSC[44]

Perspectives	**Objectives**	**Key Performance Indicators (KPIs)**	**Strategic Goals**:
Financial Perspective	To improve cost efficiency, increase profit margins, and optimize resource allocation.	**Operating Cost per Ton**: Measures cost-effectiveness in production.	Streamline production to reduce costs, manage price volatility of raw materials, and maximize
	Improve the	**Return on**	

[44] Developed by the author

	return on assets by maximizing asset utilization and reducing inefficiencies.	**Assets (ROA)**: Assesses how efficiently assets are used to generate profits.	financial return through efficient production and resource use.
	Increase EBITDA Margin to enhance operational efficiency and profitability, ensuring that revenue growth is translated effectively into profit from core business activities.	**EBITDA Margin**: Evaluates profitability before interest, taxes, depreciation, and amortization, which is particularly relevant in capital-intensive industries.	

The **customer perspective** evaluates customer satisfaction, quality, and market share. For Uzmetkombinat, this perspective is vital for maintaining strong relationships with both domestic and international customers in an increasingly competitive market.

Table 2

Application of customer perspective in Uzmetkombinat JSC[45]

Perspectives	**Objectives**	**Key Performance Indicators (KPIs)**	**Strategic Goals**:
Customer Perspective	To enhance customer satisfaction by ensuring product quality, timely delivery, and meeting industry standards.	**On-Time Delivery Rate**: Measures reliability in fulfilling customer orders on time.	Establish Uzmetkombinat as a reliable supplier of high-quality metal products, increase customer retention rates, and improve

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	Continuously improve the quality and innovation of steel products to meet changing customer needs.	**Customer Satisfaction Index**: Assesses overall customer satisfaction through surveys and feedback.	customer responsiveness.
	Build strong, collaborative relationships with customers for mutual growth.	**Quality Control Metrics**: Tracks product defects or returns due to quality issues.	

The **internal process perspective** examines Uzmetkombinat's operational efficiency, safety, and adherence to quality standards. Optimizing production processes, ensuring safety compliance, and reducing waste are critical to achieving cost efficiency and high-quality outputs in metal production.

Table 3

Application of internal process perspective in Uzmetkombinat JSC[46]

Perspectives	**Objectives**	**Key Performance Indicators (KPIs)**	**Strategic Goals**:
Internal process Perspective	To streamline production processes, minimize downtime, and ensure a safe working environment.	**Production Cycle Time**: Measures the time taken to complete the production of a unit, highlighting areas for process improvement.	Reduce process inefficiencies, minimize downtime, ensure compliance with safety regulations, and achieve high productivity
	To achieve a significant	**Waste Reduction**	

[46] Developed by the author

	reduction in waste generation in all phases of steel production to improve resource efficiency, reduce environmental impact, and lower production costs.	**Percentage**: Assesses the effectiveness of waste minimization efforts, crucial for cost savings and sustainability.	with fewer operational disruptions.
	To reduce incident rate to achieve a safer work environment, improve employee well-being, and minimize downtime and safety-related costs.	**Incident Rate**: Tracks the frequency of workplace incidents, underscoring the importance of safety in a heavy industry setting.	

The **learning and growth perspective** focuses on the development of Uzmetkombinat's human resources, technological capabilities, and innovation potential. Given the rapidly evolving technologies in metal production, investing in employee training, adopting new technologies, and fostering a culture of innovation are key to long-term sustainability and competitiveness.

Table 4

Application of learning and growth perspective in Uzmetkombinat JSC[47]

Perspectives	**Objectives**	**Key Performance Indicators (KPIs)**	**Strategic Goals**:
Learning and growth Perspective	To enhance workforce skills, promote innovation, and maintain modern technological	**Employee Training Hours**: Measures the amount of time employees spend on skill	Build a skilled and adaptable workforce, implement advanced

[47] Developed by the author

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	capabilities.	development and technical training.	technologies in production, and foster continuous improvement in operations.
	To improve employee retention rate in order to enhance workforce stability, foster a positive work environment, and reduce turnover costs.	**Employee Retention Rate**: Assesses workforce stability and the company's ability to retain talent.	
	Improve innovation index to drive technological advancements, product development, and operational efficiency, positioning Uzmetkombinat as a leader in the steel industry.	**Innovation Index**: Tracks the implementation of new processes or technologies that improve production efficiency or product quality.	

Implementing the BSC in Uzmetkombinat allows the company to track and balance objectives across these four perspectives, providing a comprehensive view of performance. This balanced approach can support the company in aligning daily operations with long-term strategic goals, facilitating data-driven decisions that drive sustainable growth, efficiency, and competitiveness in the metal production industry. Each perspective contributes uniquely to building an agile, customer-focused, and financially stable organization, which is essential for maintaining Uzmetkombinat's leadership in a competitive sector.

Results and discussion

One of the key outcomes of implementing the BSC system at Uzmetkombinat is the alignment of the company's day-to-day activities with its long-term strategic goals. By focusing on four critical perspectives — Financial, Customer, Internal

Processes, and Learning and Growth — all levels of the organization become more aligned with the overarching business objectives. The BSC helps ensure that all departments, from production to finance, are working toward common strategic goals such as cost reduction, operational efficiency, and customer satisfaction. This clarity improves coordination between departments and enhances the company's ability to achieve its vision.

A core objective of the BSC is to improve financial performance by tracking key financial indicators and adjusting operations to optimize profitability. Uzmetkombinat is likely to see improvements in revenue growth, cost management, and profitability. For instance, KPIs such as Return on Investment (ROI) and cost of goods sold (COGS) would drive decisions to minimize waste, optimize raw material usage, and adopt more cost-efficient production processes. Additionally, initiatives to increase production efficiency would help reduce costs per unit, improving the bottom line. By targeting a 5% annual improvement in production efficiency, Uzmetkombinat could reduce its operating costs and increase profitability, which directly impacts financial performance.

In a highly competitive industry like steel manufacturing, customer satisfaction and retention are vital. The Customer perspective of the BSC focuses on improving customer relationships, product quality, and service delivery. Uzmetkombinat's customer satisfaction metrics, such as customer feedback and market share, would provide data-driven insights into areas where the company needs to improve. This could lead to a more customer-centric approach, with improvements in product quality, delivery time, and customer service. If the Customer Satisfaction Score increases as a result of improved product quality and service, Uzmetkombinat could experience a 5% improvement in customer retention and an increase in repeat business. This also opens the door to expanded markets, particularly in the construction, automotive, and infrastructure sectors.

The Internal Processes perspective is particularly important for a large manufacturing company like Uzmetkombinat, where operational efficiency, production costs, and quality control are critical to success. By focusing on internal processes, Uzmetkombinat can improve production cycle time, reduce waste, and optimize its supply chain management. KPIs like output per labor hour, inventory turnover, and production yield would help pinpoint inefficiencies. By introducing Lean Manufacturing principles or adopting Industry 4.0 technologies, Uzmetkombinat might reduce material waste by 10%, resulting in a significant cost savings. The improvement in internal processes would also lead to faster production times, enabling the company to meet customer demands more effectively.

The Learning and Growth perspective focuses on developing the company's human capital, including employee skills, innovation, and organizational culture. The BSC encourages ongoing investments in training and employee development, which are critical in a highly technical industry like steel manufacturing. As a result of BSC-driven initiatives, Uzmetkombinat would likely see increased employee engagement, skill development, and innovation. Programs focused on technical training, leadership development, and employee satisfaction could lead to a more skilled and motivated workforce. A 5% increase in employee training hours per year could significantly improve the overall skill set of the workforce, leading to enhanced productivity and fewer operational errors. The creation of an innovation-driven culture could also result in new product lines or more efficient manufacturing techniques.

The Balanced Scorecard system is a powerful tool for integrating strategic objectives with performance metrics. However, its implementation is not without challenges. Below, we discuss the effectiveness of the BSC implementation, the challenges encountered, and the broader implications for Uzmetkombinat.

The key strength of the BSC lies in its ability to connect long-term strategic goals with day-to-day operations. At Uzmetkombinat, this alignment would ensure that every department and employee understands their role in achieving the company's vision. This alignment could lead to:

- Clearer communication between top management and operational teams.
- Improved accountability, as employees understand their contribution to strategic objectives.
- More informed decision-making at all levels of the organization.

For instance, production managers might track real-time data on cycle time and waste reduction, while finance teams monitor cost control and profit margins. This dual focus ensures that both operational and financial goals are pursued simultaneously.

Challenges Encountered in BSC Implementation

While the BSC is a highly effective tool, its implementation may face several challenges:

1. Resistance to Change: Employees and managers accustomed to traditional ways of measuring performance may resist adopting a new framework. Overcoming resistance requires clear communication about the benefits of the system, training, and gradual integration into daily workflows.
2. Data Availability and Quality: The success of the BSC relies on accurate and timely data. Uzmetkombinat may need to invest in new information systems to

collect and analyze data for each KPI. This could involve upgrading enterprise resource planning (ERP) systems or investing in automation technologies.

3. Overemphasis on Short-Term Goals: The BSC might lead to a focus on short-term financial outcomes, potentially at the expense of long-term strategic goals such as sustainability and innovation. This issue can be mitigated by balancing both short-term and long-term targets and ensuring that employee incentives align with long-term growth.

4. Complexity in Implementation: Implementing a comprehensive BSC system across a large organization like Uzmetkombinat can be complex. It requires a dedicated project team, detailed planning, and possibly changes in organizational culture. A phased approach to implementation, starting with pilot departments or functions, could help reduce risks.

Long-Term Benefits and Sustainability

In the long run, the Balanced Scorecard is likely to provide substantial benefits for Uzmetkombinat. These include:

- Sustained Competitive Advantage: By continuously improving financial performance, customer satisfaction, and operational efficiency, Uzmetkombinat can enhance its competitive position in the steel industry.
- Enhanced Organizational Agility: The ability to track performance across multiple dimensions allows the company to quickly adapt to changes in the market, customer preferences, and technological advancements.
- Increased Innovation: With a clear focus on Learning and Growth, Uzmetkombinat can foster an environment of innovation, which is crucial for maintaining a leading edge in an industry that relies on technological advancements.

Continuous improvement in supply chain management and production technologies could allow Uzmetkombinat to lead in the adoption of green steel production technologies, giving the company an edge in markets increasingly focused on sustainability.

Conclusion

The implementation of the Balanced Scorecard (BSC) at Uzmetkombinat JSC can lead to significant improvements in strategic alignment, operational efficiency, financial performance, and customer satisfaction. The holistic approach of the BSC, with its focus on four key perspectives, enables Uzmetkombinat to integrate its business strategy with its daily operations effectively.

While challenges such as resistance to change, data quality, and complexity in implementation are anticipated, the long-term benefits — including sustained profitability, competitive advantage, and improved employee engagement — far

outweigh the potential risks. By systematically tracking KPIs across all four perspectives, Uzmetkombinat can make more informed decisions, optimize its internal processes, and strengthen its market position.

In summary, if effectively implemented and continuously reviewed, the Balanced Scorecard has the potential to transform Uzmetkombinat into a more agile, customer-focused, and financially robust organization.

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