
INTEGRATED BUSINESS MANAGEMENT IN RELATION TO WATER ECOSYSTEM

Nikolay Katsarski

Sofia university St. Kliment Ohridski, Bulgaria, nkatsarski@gea.uni-sofia.bg

Abstract: Integrated processes in business occupy a significant place in daily activities. These business processes include activities to identify strategic approaches for the deployment of new production facilities. All this is relevant to the business model used. Each model is unique to each organizational structure and should answer the question - How does an enterprise create value? Determining value is a key point in integrated business management. Water scarcity globally necessitates its effective management. Water resource management is associated with the organization of processes for the collection of financial and non-financial information. The use and analysis of physical and monetary estimates for management purposes in relation to the business management model is the starting point for the strategic development of the organization. The development of strategically integrated projects stems from the need that the economy, the population, pollution, and climate change cannot be adequately controlled. Therefore, developing a future-oriented strategic focus can improve the overall condition of the business. The development of an integrated strategy begins with an assessment of the state and environment (external and internal), set specific goals, develop models for the interconnection and interdependence between the external and internal environment to fulfill the set goals, present the business model, integrated policies and activities and focus on the future.

In the next 50 years, business intelligence systems will take on an increasing edge. The need for adequate management and integration of multiple processes in the smallest detail will lead to the need for integrated business and business process management. The scarcity of resources, and especially of clean water, at the expense of the industry, is at the heart of the future-oriented focus. The links between business and nature will increasingly be observed. Integrated thinking is gradually becoming a driving force for innovation. In this way, optimization processes are created to reduce the use of water resources, reuse them for industrial purposes and improve their quality. With the advent of I / O things and smart cities, opportunities are created to limit losses and subsequently control risk mitigation. That is why integrated business management in relation to the water ecosystem helps for both industry and households. Next level of integrated business management is information flow from shareholder to managers. The core function of this information is the opinion of the shareholders for the future of the company. In that way, they will be informed of value creation directly and will give some advice for future activities.

Keywords: Integrated business management, strategic planning, water management

1. INTRODUCTION

The information provided by companies lacks information about their strategic business goals. This is not about corporate secrets, but rather the long-term intent of the business. The summary of the companies published in the annual financial statements does not indicate the future intentions of the company in order to assess their impact. This is a consequence of the lack of developed strategies in the short, medium and long term. The company's business model is an important element in terms of future intentions. Its presentation and disclosure can be accomplished through the so-called integrated report made up of various integrated processes. In Bulgaria, this report and strategic goals are presented in the form of a non-financial statement, which must be submitted together with the annual financial statement. The basic information that should be included in it is:

1. a brief description of the business model of the enterprise - purpose, strategy, organizational structure, infrastructure, products, policies followed in relation to the main and ancillary activities of the enterprise and others;
2. a description of the policies adopted and followed by the enterprise with regard to environmental and social issues, including the activities that it has undertaken during the reporting period and the results thereof;
3. the objectives, risks, and tasks ahead of environmental and social policies, including a description of such activities that would adversely affect the environment, employees or other social issues;
4. a description of the main indicators of the results of the activities related to environmental and social issues. [1]

The inability of this statement to provide the necessary information about the business model used, strategic goals and objectives, policies and performance indicators requires a new type of management. The integrated collection, compilation, and presentation of financial and non-financial information create the precondition for the emergence of integrated business management. In this regard, the role of integrated water management business is manifested

through integrated approaches to managing, analyzing the state, reflecting the physical change, evaluating ecosystem services related to the use and delivery of water, building and managing ecosystem assets related to water.

2. THE ROLE OF INTEGRATED BUSINESS MANAGEMENT

In the context of globalization, management faces the need for new ways of presenting the company. This need is getting stronger, especially in the face of uncertainty and instability. The various economic and financial crises require a new look at the organization and reflection of economic phenomena and processes. The need for presenting the future intentions of the company is increasing, with risk allocation, optimization processes, links between different industries and units being highlighted. Sometimes relationships and dependencies cannot be seen and need detailed analysis. An example is that water can be considered as natural to admire / sights, waterfalls, rivers, etc. / in the other case, as a resource to meet household needs, in the third case water is material for industry and commerce. Therefore, the role of integrated business management is to make this decision to optimize workflows and highlight those detailed relationships and dependencies that have been analyzed so far. The collection of different types of information, such as financial and non-financial information, is relevant in making strategic decisions. This information is used to analyze the company's ability to create value in the short, long and short term.

Integrated business management provides information about the company's strategy and how it relates to the company's ability to create value in the short, medium and long term. In addition, its impact on capital. This principle should answer the following questions:

- Where would the organization want to go and how does it plan to get there?
- What challenges and uncertainty is the organization likely to face in implementing its strategy?
- What are the potential implications for the business model and future performance?

The questions provide a starting point around which one can think of the important risks, opportunities, and dependencies arising from the market position of the organization and its business model. The relationship between past and future performance is explored. Factors that can change this relationship must be defined. Therefore, past experience is used to determine future strategic directions. The company strives for the situation in which to implement its strategy in the short, medium and long term. Within this principle, the following two elements are concluded: - Strategy and allocation of resources of the enterprise; The perspective of the enterprise.

The strategy and allocation of the resources of the enterprise are identified with: the strategic goals of the company in the short, medium and long term; incorporating different strategies to achieve the overarching strategy; allocation of resources included in the strategy; evaluation of results in the short, medium and long term. The relationship between the strategy and the allocation of resources with the information contained in the key elements is described. The links present how to change the business model of the organization to allow it to adapt to the changes. This determines the impact of the external environment, determine the risks and opportunities.

In addition to describing the interconnections, this principle also presents what distinguishes the organization in order to provide a competitive advantage. Similar examples in this direction are an investment in innovation; how the company develops and uses intellectual capital. The key investor characteristics are related to the formulated strategy and resource allocation plans.

Next, as noted above, the emphasis is placed on the prospects of the enterprise. This is achieved through an integrated report that highlights expected changes over a period of time and provides information built on a transparent analysis of the likelihood that an organization will encounter the external environment in the short, medium and long term; how the organization responds to uncertain events and challenges that might arise.

The integrated report is presented through key indicators for objective and relevant information from identifiable external sources, as well as a sensitivity analysis. If the forecast is included in the report, then a brief description of the intent is helpful. The ability to compare current and past allows you to evaluate current results. Presenting the results of the activity, the enterprise gives an idea of the qualitative fulfillment of the goals already set and their realization in the future.

The potential conclusions for the entity's future financial performance are related to:

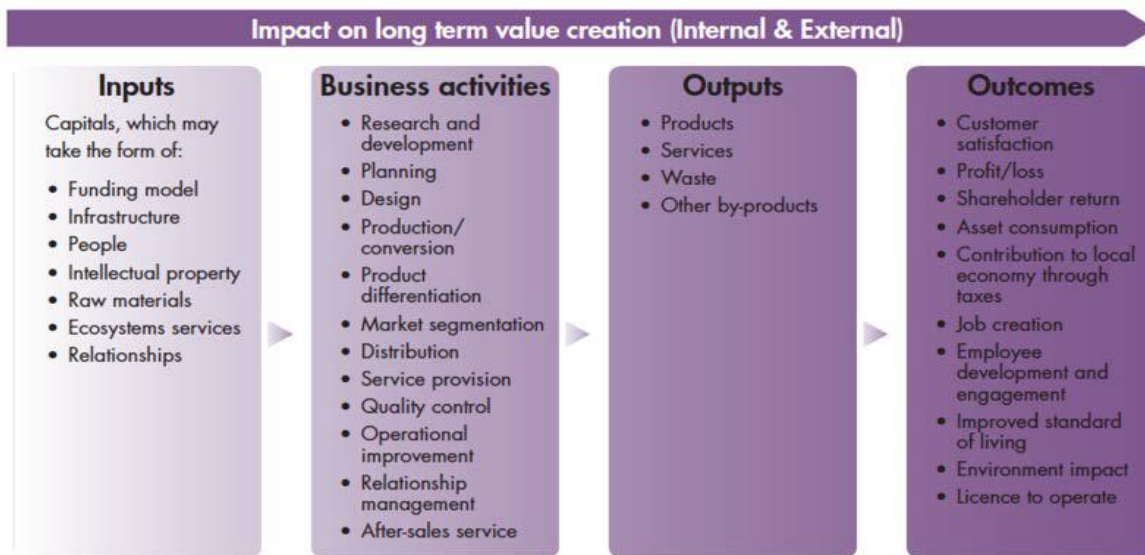
- The external environment and the potential risks of how they could affect the strategic goals of the organization.
- the ability of an entity to use its capital to create value over a period of time.

Adopting a strategic focus and orientation towards the future, including the ability of capital to contribute to the achievement of the entity's future goals. "The launch of an integrated plan begins with the development of targeted and problem analysis. Its main objective is to identify urban areas in poor condition, with negative trends in development and unrealized potential, and areas with potential for economic development." [2]

3. INTEGRATED MANAGEMENT OF WATER RESOURCES

At the heart of integrated management are integrated thinking and the capital it forms. That is why “Integrated thinking through different forms of capital creates prerequisites for addressing a number of issues to management. Their formation required a proper prioritization of the collection and aggregation of information.”¹⁴ [3] An integrated approach to water management can be represented by the companies' business model used. This makes it possible to analyze the external and internal environment and their relationship with non-financial and financial factors. “An organization’s business model is its system of transforming inputs, through its business activities, into outputs and outcomes that aims to fulfil the organization’s strategic purposes and create value over the short, medium and long term”. [4] Profit generation is a major goal of companies. Determining the cost of the basic resources associated with the production process directly affects the cost of the product being manufactured.

Business model disclosure map [5]



The use of an integrated approach to water management in relation to business processes plays an important role in households, industry, agriculture, commerce and nature in general. Within the framework of industrial production „machine building plays a very important role in Bulgaria’s economy. It contributes 16.6% of manufacturing production and 21.6% of country’s total exports. Over 2000 enterprises operate in the industry providing jobs for 92 thousand people.”¹⁵ [6] This is a good niche for car and bus manufacturing. „According to the indicator "Average age of rolling stock" in "Capital Motor Transport" EAD from 16.8 in 2008 (289 single buses with an average age of 13.5 years and 366 articulated buses with an average age of 19), decreased to 10.5 g in 2017“ [7] Instead of buying used buses and cars, modifying industrial production or consortia could meet this need. This requires the integration of industrial processes. “The concept of lifecycle management of an industrial product (asset) is important in: - developing new products as the life of innovative products is short and the development of a new product requires ever greater investment; - building an efficient product and technological structure of the companies; - the complex study of innovative solutions for the past and future, which would provide a rich information base for evaluation and prognosis of product and technology prospects. - Discontinuous processes in these conditions - risk. -Economy of development of these processes.[8] The management function is high educated. That is why “The adoption of the knowledge as a resource, such as the material, energy and financial resources of the enterprise, as well as its optimization and utilization, provide a competitive advantage for the organization”. [9] In a relation to the integrated business water management we can find that machinery industry needs a great amount of water. That why integrated approaches for recycling the water

and use it again is crucial. Other option is a "... a smart irrigation system that is based on soil sensors that analyze realized and forecasted precipitation and change the flow of sprinklers to save water. Innovative management of water resources preserves / conserves 25% more water and saves more than half a million dollars a year.¹⁶ [10] Aside from managing water resources for the industry, flood risk management is another significant management point. Potential risk areas need adequate management at each level. "Flood risk management is a holistic and continuous process, which includes analysis of the flood risk system (determination of current and future flood risk), the evaluation of a certain system state (judgement on risk and risk reduction alternatives) and the reduction of undesirable risk (strategic alternatives for flood risk reduction)."[11] Integrated business management is very important not only for business model of the company but also for preserving the company from different risks. Risk allocation helps to the company for growing.

Integrated water business management is used not only in the industry but also for the needs of households. All economic operators operating on the market and providing this natural resource make a profit or loss. The main problem with the water supply is losses. Using integrated ecosystem accounts the management can gather information for the physical transformation of the water and can calculate the cost for providing it. These types of ecosystem accounts are extent accounts, condition accounts, use and supply accounts /physical and monetary/ and ecosystem assets. The management of the ecosystem assets is the key role of the manager. It can provide, preserve and transfer the resources from one place to another. All of this infrastructure must be kept in good condition. Analyzing these accounts management will know the reduction or extension of the water. It can understand the condition of the water and its quality. Understanding the use and supply of water accounts will give information about the consumption and supply for different needs. The financial function of the integrated business management is the most important because of the price for the supply and use activities. The pricing process can be supported by different electronic devices. they can analyze for water leaking, water reduction or expansion, water use and supply and etc.

4. CONCLUSION

Using integrated business management in relation to water will have the effect in the future. Before that, it is needed long way to go. The new approach for business thinking and gathering information opens a discussion for what information is needed? How will we gather information? How will we analyze and interpret the information? The role of management will be put to a higher level because of financial and nonfinancial factors that must be managed. That is why the core function of integrated business management in relation to water is the strategic policies for water using and supply and business model for value creation. Cutting cost approach and optimization processes are a must for this new role of business management. The specific role of the management is the incorporation of using financial, nonfinancial, BI intelligence and I/O things work together for value creation.

REFERENCES

- Gatovski, I. (2020). Increasing the environmental level of urban bus transport in Sofia, Publishing Complex - UNWE, Sofia, 2020, Sustainable Development of Urban Passenger Transport on the Territory of Sofia Municipality - Scientific Conference, 30.11.2018 p. 118-126
- Kavaldzhieva, K. (n.d.). *Transparency in the life cycle management of financial instruments of industrial products*. https://www.researchgate.net/publication/339660001_TRANSPARENCY_IN_THE_LIFE_CYCLE_MANAGEMENT_OF_FINANCIAL_INSTRUMENTS_OF_INDUSTRIAL_PRODUCTS
- Katsarski, N. (2019) The new business thinking with integrated reporting June 2019 DOI: [10.5593/sgem2019/5.3/S21.108](https://www.researchgate.net/publication/334758473_THE_NEW_BUSINESS_THINKING_WITH_INTEGRATED_REPORTING) Conference: 19th SGEM International Multidisciplinary Scientific GeoConference EXPO Proceedings
- Naydenov, Kl., & Traykov, T. (2016). Integrated plans for urban regeneration and development an opportunity for cities to transform (Bulgarian case) June 2016 Conference: Lokalna samouprava u planiranju I uredenju prostora I naselia, p. 497-503, At: Belgrade, Serbia https://www.researchgate.net/publication/330412639_Integrated_plans_for_urban_regeneration_and_development_an_opportunity_for_cities_to_transform_Bulgarian_case

- Naydenov, Kl. (2018). PROSPECTS FOR KNOWLEDGE MANAGEMENT IN PUBLIC SECTOR ORGANIZATIONS March 2018 DOI: [10.5593/sgemsocial2018H/11/S01.009](https://doi.org/10.5593/sgemsocial2018H/11/S01.009) Conference: 5th SGEM International Multidisciplinary Scientific Conferences on SOCIAL SCIENCES and ARTS SGEM2018
- Naydenov, Kl. (2018). SMART CITIES - THE FUTURE OF URBAN PLANNING August 2018 DOI: [10.5593/sgemsocial2018/5.2/S19.025](https://doi.org/10.5593/sgemsocial2018/5.2/S19.025) Conference: 5th SGEM International Multidisciplinary Scientific Conferences on SOCIAL SCIENCES and ARTS SGEM2018
[https://www.researchgate.net/publication/329929803_SMART_CITIES_-
THE_FUTURE_OF_URBAN_PLANNING](https://www.researchgate.net/publication/329929803_SMART_CITIES_-_THE_FUTURE_OF_URBAN_PLANNING)
- Zhelev P. Post-crisis performance of Bulgarian machinery industry Conference: Proceedings of the Third International Economic Symposium (IES 2018) DOI [10.2991/ies-18.2019.13](https://doi.org/10.2991/ies-18.2019.13)
- Zlatunova, D.(2018). INTEGRATING FLOOD RISK ASSESSMENT INTO MANAGEMENT PRACTICE (CASE STUDY IN BULGARIA) September 2018 DOI: [10.18509/GBP.2018.55](https://doi.org/10.18509/GBP.2018.55) Conference: 4th INTERNATIONAL SCIENTIFIC CONFERENCE GEOBALCANICA 2018
[https://www.researchgate.net/publication/327849709_INTEGRATING_FLOOD_RISK_ASSESSMENT_IN
TO_MANAGEMENT_PRACTICE_CASE_STUDY_IN_BULGARIA](https://www.researchgate.net/publication/327849709_INTEGRATING_FLOOD_RISK_ASSESSMENT_IN_TO_MANAGEMENT_PRACTICE_CASE_STUDY_IN_BULGARIA)
[https://integratedreporting.org/wp-content/uploads/2015/03/13-12-08-THE-INTERNATIONAL-IR-
FRAMEWORK-2-1.pdf](https://integratedreporting.org/wp-content/uploads/2015/03/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf) last accessed 29.02.2020
https://integratedreporting.org/wp-content/uploads/2013/03/Business_Model.pdf last accessed 29.02.2020