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RISK ADJUSTED MANAGEMENT CONTROL

KONTROLA ZARZĄDZANIA Z UWZGLĘDNIENIEM RYZYKA

Abstract: The necessary developments of management control in companies towards the increase of plans' execution certainty are imperative for securing the undisturbed, continuous increase of the economic profits. These developments should enable conscious and effective management the impact of risk on the functioning of companies. Disregarding risk in management control may lead to faulty decision-taking concerning running the business, contracts, loss of market opportunities and the lack of hedging the significant risks for the operational activity. The main task of management control is to prepare decisions that may be at risk in the highly volatile business environment. Decision-makers

in each company require to obtain timely and reliable information. Managers operate in conditions of ignorance due to risk, which should be managed also by adjusting management control by a risk component. Obtaining correct data about risk and its impact on the economic results becomes the foundation for making effective decisions. However, there is paid insufficient attention in management control practice to issues of risk analysis, risk simulation, planning security or risk adjusted performance measurement. It requires the development of competences supporting the implementation of elements of risk management into everyday management operations. The above-mentioned aspects influenced the determination of the purpose of the article, which is
to indicate necessary adjustment of managerial control securing the completeness of managerial information in the environment of enterprises characterized by global risk and VUCA. That is why in the article author proposes management control developments that are results of the author's experience, which have been supplemented with literature in the area of management and risk management.

Keywords: management, management control, managerial information, controlling, objectives, VUCA

Streszczenie: Rozwój kontroli zarządczej w przedsiębiorstwach w kierunku zwiększenia pewności realizacji planów jest niezbędny dla zapewnienia niezakłóconego, ciągłego wzrostu zysków ekonomicznych. Zmiany te powinny umożliwić świadome i efektywne zarządzanie wpływem ryzyka na funkcjonowanie przedsiębiorstw. Pomijanie ryzyka w kontroli zarządzania może prowadzić do błędnych decyzji dotyczących prowadzenia działalności, kontraktów, utraty szans rynkowych oraz braku zabezpieczenia istotnych rodzajów ryzyka dla działalności operacyjnej. Głównym zadaniem kontroli zarządzania jest przygotowanie decyzji, które mogą być zagrożone w wysoce niestabilnym środowisku biznesowym. Decydenci w każdym przedsiębiorstwie wymagają terminowej i rzetelnej informacji. Menedżerowie działają w warunkach ignorancji ze względu na ryzyko, którym należy zarządzać także poprzez rozbudowanie kontroli zarządczej o element ryzyka. Uzyskanie prawidłowych danych o ryzyku i jego wpływie na wyniki ekonomiczne staje się podstawą do podejmowania skutecznych decyzji. W praktyce kontroli zarządzania nie poświęca się jednak wystarczającej uwagi kwestiom analizy ryzyka, symulacji ryzyka, bezpieczeństwa planowania czy pomiaru wyników skorygowanych o ryzyko, co wymaga także zbudowania kompetencji wspierających wdrażanie elementów zarządzania ryzykiem nie tylko w kontroli zarządzania, ale także do procesu zarządzania przedsiębiorstwem. Powyższe aspekty wpłynęły na określenie celu artykułu, którym jest wskazanie na konieczne dostosowanie kontroli zarządzania, zapewniające kompletność informacji zarządczej w otoczeniu biznesowym, charakteryzowanym przez globalne ryzyko i VUCA. Stąd w artykule autor proponuje rozwój elementów kontroli zarządczej wynikający z jego własnych doświadczeń, które zostały uzupełnione literaturą z zakresu zarządzania i zarządzania ryzykiem.

Słowa kluczowe: zarządzanie, strategia, zarządzanie strategiczne, controlling, cele, informacja zarządcza, VUCA

Introduction

The necessary developments of management control in companies towards the increase of plans' execution certainty are imperative for securing the undisturbed, continuous increase of the economic profits. These developments should enable conscious and effective management the impact of risk on the functioning of companies. Disregarding risk in management control may lead to faulty decision-taking concerning running the business, contracts, loss of market opportunities and the lack of hedging the significant risks for the operational activity. The main task of management control is to prepare decisions that may be at risk in the highly volatile business environment. Decision-makers in each company require to obtain timely and reliable information. Obtaining correct data about risk and its impact on the economic results becomes the foundation for making effective decisions. However, there is paid insufficient attention in management control practice to issues of risk analysis, risk simulation, planning security or risk adjusted performance measurement. It requires the development of competences supporting the implementation of elements of risk management into everyday management operations.

Relevant managerial information should allow decision-makers to take advantage from opportunities and avoid excessive risk exposure. Gathering relevant information on the risk exposure becomes a prerequisite for the future economic success of companies operating in an increasingly unstable business environment. Assuming that management should be defined as wise decision-making in conditions of uncertainty, relevant management interactions based on the managerial information adjusted by risk become a necessary condition for effective management. Hence proper risk management becomes a crucial condition to survive in the market. Referring to this problem, the aim of the article is to indicate the necessary developments of management control supporting stabilization companies' economic profits, which requires necessary adjustment of elements of managerial control securing the completeness of managerial information in the environment of enterprises characterized by global risk and VUCA. The author generally uses the postulative style, as the essence of the article is to encourage the implementation of risk controlling that should be a crucial element of management control in enterprises, so that they can create economic profits in a stable way in an increasingly turbulent business environment. Author bases mostly on his own experience and studies that are supported by literature input form management and risk management area. The companies' operational activity is closely related to the environment, which is both the main source of risk and the main area in which it can be actively reduced – the economic nature of the market activity is always linked to the acceptance of inevitable volatility. Therefore, risk should be seen more as the measure of deviation from planned values than as an injurious situation, being a consequence of the complexity and randomness of the reality, in which the enterprise operates.

Management in the risky environment

Companies operate in a global economy that exposes all of them to continuous changing risks that not only concerns the company, but also affects the activity of other entities, hence each company is exposed to the risk of decisions of others. The impact of risk in an increasingly global economy becomes critical to the structure of management control. Companies operate in a progressing complexity and instability. The fundamental management challenge is the adoption of the organization to the new conditions of operational activity characterized by increasing risks that will support companies to adapt to the new circumstances in the business environment[1].

The operational activity of companies is exposed to constant changes resulting from the requirement of continuous development in the conditions of the emergence of new risks, which forces them to react flexibly in new situations. New instruments supporting economic results management must be provided in such a situation of word characterized by increasing discontinuity and absolute uncertainty[2]. Following T. Pszczołowski management should be defined as the activity of managers aiming to execute enterprise plans using resources in order to achieve the organization's goals by making wise decision[3]. The primary goal is the creation of the economic profit being a synergistic effect developed in a company[4]. Related decisions are always at risk, in some cases affecting the far future. The goal becomes the anticipated, future values of economic results linked to related actions of managers. Hence, the management control instruments shall be developed by risk starting with building tools for the strategy operationalization, through cost settlement, to the final measurement of managers' performance.

Risk management gets increasing importance in the world of global randomness and volatility[5]. Risk materialization that is often triggered by global processes or local events, may result in many companies going out of business. However, the occurrence of risk may become an opportunity for a company that is properly prepared to develop and expand the business. Management control should support

[1] More concerning the management in risky environment in: D. Michalski, *Nowoczesne narzędzia kontroli zarządzania w czasach globalnego ryzyka*, Difin, Warszawa 2020.

[2] More in: Y.N. Harari, *21 lekcji na XXI wiek*, Wydawnictwo Literackie, Warszawa 2018.

[3] T. Pszczołowski, *Mała encyklopedia prakseologii i teorii organizacji*, Ossolineum, Wrocław 1978, p. 288.

[4] L. Krzyżanowski, *Podstawy nauk o organizacji i zarządzaniu*, Warszawa 1994, Wydawnictwo Naukowe PWN, 1994, p. 167.

[5] As shown in Jajuga (2009) risk management is the process of making decisions and implementing actions leading to an acceptable value of risk in the company, with the exposure structure supporting the plans execution. K. Jajuga, *Zarządzanie ryzykiem*, Wydawnictwo Naukowe PWN, Warszawa 2009, p. 15, 18.

managers to develop the potential to use the opportunities by providing a sustainable improvement of economic results under conditions of risk materialization. Relevant managerial information becomes the foundation to create shock-proof companies, which are not only adapted to operate effectively in the era of global revolution on the economy characterized by high risk, but also prepared to take advantage of the opportunities. Proper control of the operating activities, based on reliable and complete data becomes important for efficient decision-making at risk. Management control supports managers to monitor the effectiveness of business strategies, the correctness of decisions and the productivity of invested capital. Effective control of managers' decisions ensures relation of activity with the company goals and the action automation thanks to the implementation of a feedback system based on reliable reporting of results.

Importance of management control

Management control should contribute in the company to the achievement of goals and secure the adaptation potential, which is the result of positive balance of resources exchange with the environment. Financial resources are an essential element for company functioning. The proper flow of relevant information is essential for the effective resources use and proper correlation of this process with the plans execution. Management control generates steering interactions, creates norms and determines the rationalized selection criteria for the decision-making. It means creating the necessary influence within company to achieve a required certainty of results.

Companies operate on the basis of organizational culture defining routines, schemes and operational goals of organizational units. However, businesses unable to adjust flexibly the operational routines will not survive. Crucial conditions for an organization's survival in the volatile environment is its ability to adapt to changing operating conditions. It is always connected to funds spending. Company should ensure constant inflow of funds exceeding the reduction of resources, if it wants to avoid divestment of its strategic resources on the basis, of which it carries out its core activity. The positive balance of resource exchange with the environment creates the necessary flexibility of the operations of the company and creates conditions for generating added value. Properly functioning management control is a source of benefits for the company both in terms of internal efficiency improvement and market dominance. This scheme increases following market development complexity in order to secure the ability to analyze increasing volume of data. Management control should be future-oriented, focusing the attention of managers on the main areas and main factors for generating economic profits and creating criteria for assessment of the company's success. A properly designed management control provides the company management with access to information indicating, which areas of the company are profitable, create value at risk and should be optimized in order to achieve planned targets.

Hence, there are two basic areas of management control:
1. **providing information** supporting management in the company in order to achieve objectives using available resources. Management control is a tool that motivates managers to take actions and decisions focused on goals execution;
2. **instrument for communicating expectations regarding future results, risk and evaluation of the performance** – generation of steering interactions in areas of responsibility, negotiation of goals between top management and managers, analyzing deviations from plans and taking corrective actions.

The main objective of management control is securing the execution of the company's goals. Hence, two above-presented complementary and properly functioning areas of management control allow to introduce the mechanism of efficient adaptation in the company to business environment's volatility and to ensure the consistency of strategy goals and decisions at risk of individual managers. There is necessary to ensure the integration of management control with elements of risk management and adjusting its structure to the specific needs of entities[6].

Management control should equip decision-makers with tools to control the stability of economic results based on the introduction of new elements to the management process, adapting this process to the usage of the risk-taking in order to create a competitive advantage. Management control creates potential to improve management towards quick adaptation to market changes. That is why economic profit should be the result of consistent execution of plans and right decisions, programming the positive impact of randomness and not the result of randomness itself. Management focused on creating conditions for a stable improvement of economic profits should be developed by identification of risk factors influencing the operational activity of companies, risk analyses, limitation of risk exposure and measurement of the efficiency of risk-taking. Hence, tasks of management control should be presented in following way:
- support for managers that take risk;
- monitoring the efficiency of risk taking;
- risk adjusted performance measurement[7];
- risk reporting developed by risk impact on economic performance.

Management control equipped by above-presented tools contributes to the stabile control of economic results, linking profit improvement to the rationalization of the capital costs of the company activity.

[6] R. Brajer-Marczak, *Efektywność organizacji z perspektywy modelu dojrzałości procesowej*, „Zarządzanie i Finanse" 2015, Vol. 1.
[7] Company creates value when it makes smart business decisions with its available capital and when it is properly compensated for the risks incurred. See: J. Lam, *Implementing Enterprise Risk Management: From Methods to Applications*, Wiley, New Jersey 2017, p. 320.

Management control creates an information system that processes economic data concerning the company's activity. The value of information is generated only when it secures efficient use of resources. As underlined by C. Drury[8] information gets value only when it creates the potential to make effective decisions. Decision-makers are able to assess the results of different options of activity based on access to relevant information. The company's success is determined by the ability to create and deliver the timely and right managerial information. Management control should ensure that appropriate data and information is correctly reported, analyzed and clearly presents cause-and-effect relationships. The prerequisite is the consistency of reported data. Decision-makers creating the structure of managerial information should define, which drivers are important to the success of the enterprise and how many measures should be observed. The method of preparation of managerial information should reflect the way of the resource consumption in the organization. Effective management requires following elements in place:

- access to precise information on costs,
- monitoring of factors having a significant impact on the execution of objectives,
- reporting system of measures providing feedback interactions concerning the effectiveness of actions towards compliance with the goals.

Such an information system provides support for management decisions, based on both quantitative data and descriptive information.

Integration of risk issue into management control

Decisions are made usually with the lack of complete information – as was mentioned previously there can be indicated that managers are characterized by ignorance regarding future situation of the business environment. That is why risk should be considered during preparation of any action.

Management control should provide useful information to managers, based on appropriate models and tools, creating the basis for solving decision problems[9]. Information concerning risk arising in very turbulent environment that is characterized by VUCA is extremely important for future existence of company. Hence, there is crucial to secure the integration of risk management with management structures towards the integration and centralization of risk-taking control and the analysis of the effectiveness[10]. It is an important driver of sustainable creation of future profitability.

[8] C. Drury, *Rachunek kosztów*, PWN, Warszawa 1995, s. 39; C. Drury, *Management and Cost Accounting*, UNR, London 1987, p. 7.

[9] More in: E. Marfo-Yiadom, *Zasady zarządzania*, Wydawnictwo Wyższej Szkoły Humanistyczno-Ekonomicznej w Łodzi, Łódź 2008.

[10] K. Mormul, *Risk Management in the Management Control System in Polish Local Government Units – Assumptions and Practice*, „Risks" 2021, nr 9 (92).

VUCA is an acronym for the English words: unpredictability, uncertainty, complexity and ambiguity[11]. This concept was developed by the American Military Academy in the late 1990s and describes a rapidly changing and increasingly complex world. VUCA began soon to be used by the business to analyze the confrontation with a constantly changing reality. VUCA is directly related to the management and risk management, describing the business environment characterized by randomness and rapid changes. VUCA word requires from managers the development of new patterns of thinking to act efficiently in the increasingly turbulent environment.

The role of management control is extremely important because there should be created in the company the mechanism of risk consideration mechanisms as part of planning, defining goals, securing resources for decisions implementation, performance management and steering the goals' execution[12]. As shown in Rieg et al. (2021) the following management control developments should be implemented[13]:

- **definition in plans the objectives for risk-taking** – goals are the basic tool to control the desired managers' behavior, supporting the execution of the company's plans. Consistency of the management control system should be improved by adjusting the set of objectives management with risk measures (e.g. risk exposure limits, risk response costs, targets for risk adjusted performance measurement), linking them with existing control instruments and the incentive system. The increase of the certainty of achieving the strategic and operational objectives results from the limitation the risk exposure and achievement planned risk-return profile[14];
- **operationalization of risk objectives by measures related to financial planning** – the implemented measures should define the required value of the measure and the permissible deviation from the target. Management control should also define the system of monitoring the execution of the target values at risk as the part of the company's objectives system and initiate the corrective actions defending the target level;
- **plans development towards stochastic approach** – operating in turbulent environment requires the change from a deterministic approach to planning towards stochastic approach based on the risk analysis (identification of risks and assessment of its impact on the achievement of the company's objectives), setting a corridor of possible deviations of the company's results (positive deviations, negative deviations) from the plans. The range of potential values of economic profits should be identified and translated into risk limits and risk reaction instruments

[11] More in: N. Bennett, G.J. Lemoine, *What a difference a Word makes: Understanding threats to performance In a VUCA world*, „Business Horizons" 2014, May.

[12] More concerning integration between performance and risk in: C. Presti, *Integrating Performance and Risk in a Management Control System*, Springer, Cham 2021, p. 83-97.

[13] R. Rieg, W. Gleißner, U. Vanini, *Risikoblindheit im Controlling und wie man sie überwindet - Integration von Risiko-Informationen in Controlling und Management*, „Controlling" 2021, Vol. 33(5).

[14] T. Bekefi, M.J. Epstein, K. Yuthas, *Managing Opportunities and Risks*, Management Accounting Guideline 2008, CMA Canada, AICPA, CIMA, https://www.cimaglobal.com/Documents/Imported-Documents/cid_mag_managing_opportunities_and_risk_march08.pdf.pdf [access: 10.08.2022].

for each option. Plan should be designed as a set of options, controlled by risk measures and application of risk reaction instruments for each alternative – the acceptable cost of risk reaction should be planned based on the result of risk analysis;

- **analysis of possible deviations from plans** – risk materialization always leads to deviations from plans. The result at risk should be valuated for the by owners defined probability (confidence level), securing the safety of the plans execution;
- **risk-adjusted performance measurement** (RAPM) – the integration of the risk issues into the measurement of results and the assessment of managers' decisions. The performance measurement is developed by risk capital, necessary to finance risk-taking[15];
- **consideration of risk in strategic controlling and strategy operationalization** – development of the Balanced Scorecard (BSC) with key risk data, valuation of capital costs for given company unit based on risk analysis and consideration of risk data as the basis for evaluation in incentive systems.

The integration of risk and finance should secure efficiency of risk taking. The managerial information will not provide relevant information regarding the real picture of the financial situation of the company without linking the profitability measurement with the risk impact. Forecasted results should be connected to the volatility of risk factors affecting the success of a company, which should improve the efficiency of resources usage and increase the creation of value added.

Consideration of risk in management control

Understanding the risk associated with the company's operations is the basis for managing the range of plan's deviations in order to strengthen the creation of value added. The adjustment of management controls by risk component must ensure that the value of the company and its financial rating are increased and the unintended spending of funds is avoided. Decision options should be evaluated based on risk-return assessment supported by risk management tools: development of traditional measures by risk analysis with decision templates and risk-oriented training for controllers and managers. The insufficient integration of the risk issues and management control results from:

- the lack of risk targets in the performance measurement and incentive system,
- the lack of risk consideration in the value-based results assessment,
- the lack of technical and methodological skills in risk analysis among controllers and decision makers.

Practice indicates that the areas of management control and risk management operate independently in many companies, not only due to the lack of resources, but also due to the lack of awareness concerning the need to integrate information from the risk area with decision-making and performance assessment.

[15] More in: A. Aziz, D. Rosen, *Capital Allocation and RAPM*, in: Alexander and Sheedy (ed.), *The Proffesional Risk Managers' Handbook*, Vol. III: *Risk Management Practicies*, PRMIA 2004.

The coherence of the management process is ensured by systematic consolidation of all factors influencing the enterprise profits and taking them into account in the performance measurement. Management supported by state-of-the-art management control developed by a risk component, becomes more comprehensive and effective. The impact of risk on company's operations should be considered during budgeting, capital allocation and measuring business results[16]. It is essential in order to achieve this aim to use risk analyses, designing an efficient risk reaction and measuring the risk-return profile. Therefore, the area of management control should be developed by risk controlling, responsible for controlling risk-taking and noticing managers concerning the impact of risk on results of activity. Hence, risk controlling naturally becomes a complementary area to the traditionally perceived controlling. Risk controlling should be defined as a management method focused on controlling the risk-taking by company managers towards stabilization of the economic results improvement (both by taking advantage of the opportunities and by neutralizing the undesirable consequences of risk exposure). The main task of risk controlling is to stop to perceive risk only as a negative situation and to start to manage the effectiveness of risk-taking, including all factors that may lead to both losses and profitability increase. This requirement determines the target risk controlling structure.

Risk controlling consists of the following elements:

- capital adequacy and correct allocation of risk capital to individual responsibility centers, which in practice is transformed into risk limits recommendations;
- risk monitoring and control of risk exposure, which should be linked to the guidelines for achieving the required risk-return profile;
- risk adjusted performance measurement.

Market opportunities are inextricably linked to risk-taking. An efficiently designed risk controlling should be enabled to take advantage of opportunities, creating conditions for generating stable economic profits. This can be achieved only, if the strategy implemented in the organization ensures an optimal balance between the goals of growth and profitability and the associated risks. Management control should secure compliance of the projection of management results and the applied risk control policies with the volatility of the factors influencing the company's success. Risk controlling should participate in defining the risk tolerance[17], risk limits, accepted risk reaction instruments and reporting channels.

- Top management receives the necessary information about the risk exposure and potential impact of risk on the results of company operations.

[16] P.F. Drucker, *Praktyka zarządzania*, Warszawa 2005, MT Biznes, p. 45.

[17] Risk tolerance shall be defined as maximal risk exposure acceptable for planes execution and defines global company risk limit that is allocated down in company into business units.

- Managers are informed about the expectations concerning risk taking and noticed concerning the impact of their decisions on the execution of plans.

The foundation for the development of management control is constantly controlling the impact of risk on the profitability of the company. Addition of risk impact to performance measurement allows to rationalize decisions also in the area of risk taking.

Management control completed by risk controlling should precisely reflect the economic picture of company operations and assess the future results and financial situation at risk. Hence, it is important to secure the implementation of the following tasks within the management control process:

- **forecasts of the results should be completed by risk component** - managers are focused on the execution of planned profits at risk. The controlling system follows the execution of planned goals. The incentive system supports the achievement of the company goals and ensures the convergence of the goals of owners and managers. The basis for the incentive system are usually corporate goals, which are measured e.g. by EBIT or EBITDA. This approach should be adjusted by measures related to the return on risk. Managers should be interested in information on the risk-taking profitability of their decisions. The prerequisite is the required security of profits generation, which means efficient risk management at least, what requires to limit managers in risk-taking within the company risk tolerance and to secure the expected return on risk capital;
- **consideration of risk in the strategy** – risk that arises in the globalized business environment cannot be ignored during the strategy development. The strategy execution is exposed to the long-term trends of the world economy development. Hence, the identified opportunities may not occur and the implementation of strategy may be disrupted by risk materialization. Global risk of VUCA word disrupts the creation of a strategy characterized by a high level of certainty[18]. The analysis of the associated risk becomes extremely important and requires stochastic, variant structure of strategy construction. The right risk analysis becomes crucial for success of strategy, because it is the basis for creating variants of the strategic decisions securing the highest return on investment for owners in specific situation at risk. It is necessary to stop linear planning, based on forecasts prepared as extrapolation of the past. Such an approach makes difficult to implement effective tools for supporting the achievement of goals in the future described by the randomness and discontinuity of market trends;

[18] More concerning risk and strategic management in: G.M. Puia, M.D. Potts, *Risk in Strategic Management*, Oxfords Research Encyclopedias of Business and Management. Retrieved 3.12.2022, https://oxfordre.com/business/view/10.1093/acrefore/9780190224851.001.0001/acrefore-9780190224851-e-7 [access: 15.04.2022].

- **development of the activity picture by probable variants of volatility** – despite the very turbulent environment, enterprises do not change the practice of planning and monitoring the achievement of objectives, based on linear and deterministic prepared plans. The randomness of the environment conditions should encourage decision-makers to project various variants of the risk reaction instruments preventing the deviations of planned values (stochastic approach to planning in the VUCA word). Managers and controllers assume often that the planned value is also the most likely or expected value, although it works often only as the benchmark used to control the plans execution. While it should be considered in the execution of target value the distributions of results, presented in specific ranges specifying both positive and negative deviations from the target as alternative approach to analyzing future performance;
- **consideration of risk analysis in decision-making processes** – risk analysis is important to assess the enterprise's ability to take risk. The knowledge of the risk exposure and its impact on the company's performance also allows to define the capital requirement in the company. The risk analysis should therefore become an element developing the controlling analyzes and the capital structure. The risk analyses should contain stress tests in order to identify the risks threaten the continuity of company operation. This practice should be carried out in a systematic and continuous manner. It requires to develop the competences, knowledge and tools that allow to fit elements of risk analysis into the management control.
- **application of risk adjusted performance measurement in the decision-making process** – evaluation of decisions performance should base on return on capital adjusted by risk capital[19]. Management control becomes the central unit that prepares managerial information for decision-making, consideration of expected return for different options that have different risk costs. It is necessary to develop competences for the implementation of RAPM type of measurement and for interpretation of the results by managers.

The essential task of management control is to secure relevant information concerning results at risk. Proper perception of risk requires not only treating risk as a negative factor that may worsen the planned economic results, but also as an opportunity. Hence, it is important to manage the relation of potential profits generated as a result of risk-taking to the costs of capital involved. Risk creates opportunity to work out additional profits, which are a reward for risk exposure. An alternative to potential profits is the possibility of incurring a loss as a result of unfavorable for the company environment developments, or faulty internal processes. Hence, the proper risk analysis becomes crucial for the preparation of right managerial information in order to eliminate intuition from risk-taking, which is the reason of many errors and

[19] More in: V. Rao, *The Significance of Economic Capital to Financial Institutions*, in: A. Dev (ed.), *Economic Capital. A Practitioner Guide*, London 2004, Risk Book.

losses. Decisions based on intuition and the assumption of linear phenomena usually contribute to the results significantly different from the plans. Intuition that is not supported by appropriate regulations and risk analyses does not mean the reliable support. Management control task should care that economic profit becomes the result of planned activities and not randomness. Managers should be aware of the importance of risk controlling for the proper management in the enterprise and appropriate risk-taking objectives should be included in the performance evaluation.

Final remarks

Management control should become the management tool ensuring business rationality and essential information for decision making in the risky business. Risk should always be treated as an element of the stochastic reality in which the company operates. Hence, it is necessary to complete the management control with the analysis of the impact of individual strategic options on the risk exposure and company financial situation, non-linear planning and stochastic approach for objectives setting and key risk measures indication, taking into account both the strategic decisions and operational activity that are at risk, supported by development of risk adjusted performance measurement.

Author proposed adjustments and risk orientated tasks of management control that should lead to an improvement in the predictability of the plans' execution and better management of companies' activity options in risky environment, optimizing the capital requirement for financing operational activity. It is essential to identify, analyze and control the potential plans' deviation of different decision options in both strategic and operational companies' perspective. It requires to build competences within management processes that will secure the precise risk analysis and risk reaction, securing the targets achievement. Author recommends the implementation of risk controlling elements to management control and the risk impact consideration in managerial information as answer to the challenges of global risk and VUCA environment, making risk issue important for every manager. Hence, there were presented in the article various proposals for the incorporation of risk issues into management control, which makes crucial to develop the necessary competencies not only in management control, but also in various management levels. It supports to secure the execution of the company's strategic and operational goals thanks efficient decisions-making steering at risk. Managers receive support for taking effective decisions concerning the allocation of resources within the company using risk controlling instruments. It creates a mechanism combining risk exposure with economic results and supporting risk reaction, what allows to develop the most effective strategies for the operation of the companies in the current extremely volatile global business environment.

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