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Radoica Luburic [1]

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KNOWLEDGE AND LEARNING IN TERMS OF OPERATIONAL RISK MANAGEMENT IN THE FINANCIAL AND BANKING SYSTEMS

Abstract: *This paper is a part of the author`s wider research that examines the impact of operational risks on the functioning of financial organisations, with particular reference to central banks. The research clearly demonstrates the importance of the human factor in the timely identification and efficient management of operational risks. People are the basic strength of organisations; they are the source of innovation, as well as of good relations with customers and other interested parties. The paper highlights the illusion that people can be successful in improving products or providing better services without improving themselves as well. Any assessment of the impact of the human factor on the appearance, identification, and efficient management of operational risks is a very complex process. This has to be an ongoing process that develops through the development of the organisation, staff competences and motivation, as well as organisational culture. In particular, emphasis must be placed on the importance of learning and knowledge in both the recognition and the efficient management of operational risks. The paper identifies education as the foundation of knowledge and knowledge as the foundation of the long-term development of organisations. They grow in significance when employing a process approach to risk management, especially the connected roles of "process owners" and "risk owners" in effective process and risk management. It is also clearly shown that any defence against risk, is as strong as its weakest link, and the weakest link in the chain of defence is an untrained, demotivated or dissatisfied employee or team, who are unable to recognize risk on time.*

Keywords: *Operational risk management, quality management, quality management principles, knowledge, learning, innovations*

1. Introduction

In these turbulent and crisis times in which we live and which are characterized by the digital era with all its advantages and disadvantages, as well as increasing acceleration of changes, everything represents a potential risk. Rapid technological progress and precarious

[1] Corresponding author: Radoica Luburic
email: radoica.luburic@cbcg.me

environment bring about a growing number and types of risks in all areas of social life. Risk is defined in different ways but one of the general definitions is that risk is a probability that an event will occur and adversely affect the attainment of objectives.

The financial system, understood in its broadest sense, is particularly susceptible to all disturbances that occur as a result of overall global trends, which is particularly obvious when considering the effects of the recent global financial and economic crisis. The most important and most vulnerable segment of the financial systems of most countries is certainly the banking sector since a large number of risks emerge there and they have a very significant impact not only on the performance of banks but also on the environment in which they operate (James *et al.*, 2002).When central banks are concerned, risks are also very complex due to the complex nature of their business and the importance of these institutions for a country`s economy and society as a whole.

Among many risks that occur in the financial and banking system, operational risks have attracted considerable attention in recent times. Interpretation of the general definition of operational risk which highlights the impact of inadequate or failed processes, systems, human factor, as well as external events, which are the essence of all social movements ever since the beginning of human existence, testifies about its long historical duration. Although operational risk has had a great impact on all social happenings, not until recently has it been given a place and a role in management. Risk management, historically speaking, has mainly focused on legal risk, compliance, and financial reporting. That started to change when organisations began to realize that the biggest losses came from strategic and operating risks so they started devoting their attention to these risks (CEB, 2015).

2. Impact of the human factor on risks

In business, everybody tries to survive, grow and be successful, which is not easy to achieve. One should be able to know and keep up with time, as well as to be very forward-looking. Business, just like any other game, has its players, its lingo, its rules, controversies, and rhythm. As indicated in the quality management principles, the people who manage and whom we work with are crucial for both our success and failure. They are the most important factor to reach success in an organisation and their full commitment significantly enhances the organisation`s capacity to create value for interested parties. Top management have guidance necessary to create and maintain a common vision, shared values, and internal environment in which people can fully engage in the pursuit of the organisation`s objectives (ISO 9001:2015; Luburic, 2015).

Bearing in mind that people are the most important but also "critical resource", it is necessary to ensure that organisation encourages their personal growth, learning, knowledge transfer and teamwork. Managing people should be carried out using a planned, transparent, ethical, and socially responsible approach. The organisation needs to ensure that employees understand the importance of their contribution and role in order to know what is expected of them. Here, the role of top management is critically important, indispensable, and irreplaceable.

If integrative processes prevail in an organisation, if the work atmosphere and overall environment are positive and constructive, and if there is enough mutual trust and respect, people will unleash their concealed creativity and energy, balance out systems and processes, and work more effectively on continuous improvement (Kavi, 2010). There is no efficient improvement of processes without full involvement of people because they are the ones that "inspire" creative energy and create success. It is easy to recognize an organisation where positive and creative energy "permeates". Managers at all levels need to encourage open communication with associates and subordinates, show that they trust and respect them, have patience for them and their concerns, and try to help them whenever possible.

Peter F. Drucker (2003), one of the founders of modern management, advised managers to manage with the power of facts, to lead organisations by winning over people, and order them only when necessary. As this eminent scientist used to say, "You can manage things, but people need to be led. And the goal is to make productive the specific strengths and knowledge of each individual". (Draker, 2003) Drucker vividly described the position of managers in today's society by saying: "They must, so to speak, keep their noses to the grindstone while lifting their eyes to the hills—which is quite an acrobatic feat." (Draker, 2003). The thing is that managers should be at a high enough level to have the authority to take decisions, but also at a sufficiently low level to know details. Management itself is more than a complex process - it is also a skill and science and profession and knowledge and talent, all at the same time.

"Management" is one of the most frequently used terms in business, but many often use it in a wrong or unclear sense. In accordance with the international standard, management is defined as "coordinated activities to direct and control an organisation." Management can include establishing policies, objectives, and processes for achieving those goals. In English, the term "management" sometimes refers to people, i.e. a person or a group of people with powers and responsibilities to implement and manage an organisation. When "management" is used in this sense then it should always be used with some form of attribute to avoid mistaking it for the previously defined term "management" as a set of activities. For example, the phrase "management needs to ..." ("management shall ...") was abandoned, while the "top management shall ..." ("top management shall ...") is acceptable. Otherwise, different words should be used to express the term when it relates to people, for example, "managerial" or "managers" (ISO 9000:2015).

Organisations are generally the same as their leaders and people who work there. One cannot expect processes to function better if the people who manage them do not change for the better. It is an illusion that people in organisations can successfully improve their products or provide better services if they do not improve themselves. In order to ensure that it has necessary competences, an organisation should establish and maintain a "people development plan" and associated processes.

The international standard that deals with organisations` achieving sustainable success, ISO 9004:2009, operationalizes this process in five steps. The first one is identifying the professional and personal competences the organisation could need in the short and long term, in accordance with its mission, vision, strategy, policies, and objectives. The second step is identifying the competences currently available in the organisation and the gaps between what is available and what is currently needed and could be needed in the future. The third step involves implementing actions to improve and/or acquire competences to close the gaps, while the fourth one refers to reviewing and evaluating the effectiveness of actions taken to ensure that the necessary competences have been acquired. The final step is maintaining competences that have been acquired (ISO 9004:2009).

ISO 9001:2015 standard deals with competence of an organisation by specifying requirements that need to be met in order to achieve this. According to this standard, an organisation must first determine the necessary competence of person(s) doing work under its control that affects its performance and effectiveness of the quality management system. It must also ensure that these persons are competent on the basis of appropriate education, training, or experience. The organisation also has to, where applicable, take actions to acquire the necessary competence, and evaluate the effectiveness of the actions taken. These applicable measures can include, for example, training, mentoring, or reassignment of currently employed persons; or hiring or contracting of competent persons. Finally, for an organisation to have the proof of competence, it also has to retain documented information as evidence of competence (ISO 9001:2015).

It should be noted that many organisations are still dominated by the traditional hierarchical approach that creates difficulties to staying focused on priority tasks, the creation of value for customers and other interested parties. This is to a large extent reflected in the overall financial and banking system, primarily in commercial banking, because profit is in the foreground here and everything is more or less subordinate to making profit. Therefore, it is necessary to focus more on customers and other interested parties than to hierarchical structures although this is much easier to be said than done. The culture of business that is blurred by enormous salaries and bonuses and social responsibility clouded by rules of acquisition and distribution of profits are not a very fertile ground for expressing emotional and social intelligence. Without social responsibility, however, there is no sustainable success of an organisation in the long run, even though it may seem that this is not true. The key responsibility here is of financial institutions, primarily of central and commercial banks at all levels, because they are the most financially powerful institutions that should grasp the context in which they operate by following the principles of social responsibility.

Our business culture does not pay not enough attention to the rewarding of employees, regardless of this being money or some other form of reward. In a transitional business culture, not a small number of managers are still more concerned about the opinion of their superiors over users to whom they sell products or provide services, and let alone other interested parties. Let us consider just one but very important part of sustainable success, motivation of employees, and we can easily conclude that this variable is far from being given due attention. Motivation is mainly expressed through some form of cash compensation and this may be because many of those who decide think that everything can be solved with money. It should be noted, however, that cash compensation only is not always the most effective way to motivate. Theory and practice of achieving sustainable success views this highly complex problem in a different manner. The basic assumptions of motivation could be indicated in the three key dimensions. First, motivation is positive and people feel good if they are motivated. Second, there is always less than enough of it and should be occasionally renewed because it can be “lost” over time. And the third, motivation is just one of the factors that influence the behaviour of individuals, while other factors involve capability, resources, working conditions, and the like (Zeyringer, 2004; Jan, 1997).

Motivation is an effective means that managers can use to regulate relations in an organisation by connecting set objectives and needs with the wishes of employees. The road to efficiency, as a Scandinavian expert on motivation Bo Jäghult believes, "begins from inner motivation that leads to internal effectiveness which, in turn, generates a positive effect mirrored as blossoming external effectiveness.” Therefore, the work on awaking inner motivation, argues Jäghult, “is not just a matter of satisfaction and development of employees. It is one of the most important instruments to increase effectiveness. This should be clear to everyone.” (Jäghult, 2007).

3. Learning, improvement, innovations and knowledge

It is a long way from learning to knowledge. The very word "knowledge" oozes respect and points to something powerful and limitless. Socrates, one of the most influential thinkers of all times, said the most famous sentence: "The only thing I know is that I know nothing." Knowledge is not a classic commodity as it is not purchased but acquired. There can be no knowledge without ongoing and hard work, continuous and comprehensive learning, and continuous unfolding of experience, and there certainly cannot be any knowledge without full commitment and full responsibility for one`s self and for others. Even the Chinese sage Confucius said: "The progress of the superior man is upward; the progress of the ordinary man is downward." Knowledge becomes obsolete much faster than people are willing to understand and accept. Maybe this is because no one has ever won the "race" against knowledge. But this is nothing new. This has always been like this and an old Chinese saying best depicts it: "Learning is like rowing upstream; not to advance is to drop back" (Luburic, 2010).

In culturally developed societies, with the prevailing cult of work, knowledge is a highly respected category. Peter Drucker considered that the authority of knowledge is as legitimate as the authority of position. In societies that support knowledge, as well as in learning organisations, the authority of knowledge is indeed as legitimate as the authority of position, while in authoritarian societies where power is above everyone and everything, knowledge is not even close to the authority of position. There are a lot of everyday examples in today`s digital world that show how sheer propaganda information is proclaimed true and sometimes even as knowledge.

Education is the foundation of any knowledge and knowledge is the foundation of a long-term development and a reliable road to achieving sustainable success. That is why it is no wonder that the global trend is that available investments in employee education after schooling exceed the budget at disposal of institutions in the education system. Let us consider the example of Sweden where in the first 10 years of employment, employees spend from 300 to 500 days on innovation of knowledge, and 3 to 5 percent of the workforce continuously improve their knowledge. With just under 10 million inhabitants, Sweden is among the world`s top listed countries for the index of human development, innovation, information and communication technologies, e-readiness, as well as the total expenditure on R&D. This country spends about 8 percent of its gross domestic product on education, which is around 500 billion euros. Similar developments are taking place in many other developed countries (European Commision; Luburic, 2010) It is no coincidence that education, along with health, safety, environmental protection, and some other areas are listed in the top national priorities of almost all developed countries. The importance and role of education in a society is illustrated by the results of a survey conducted by the Organisation for Economic Cooperation and Development (OECD). This study clearly confirms the importance of investing in education for economic growth and job creation in the European Union, but in other countries as well. The study emphasizes that "*We need to ensure that young people in particular are equipped with the skills they will need in their working life and that we provide continuing learning opportunities for adults.*" (The European Commission published these results of the OECD`s 2014 research of the importance of education in society).

All who are engaged in teaching and scientific work or any other serious profession for that matter know how much they have to work and learn to gain some knowledge. Knowledge is further complicated by the process of its acquiring, mastering, and verification. Knowledge inputs are available sources and information of different origin that can be both subjective and objective. Based on these sources and information, knowledge outputs, which are shaped as truths in accordance with the established methodology, may also have certain shortcomings and limitations. Given the importance and complexity of this issue, international quality standards devote full attention to knowledge, learning, and innovation in a comprehensive, detailed and instructive manner.

Quality standards perceive knowledge as available collected information which is reasonably believed with strong confidence that they are true. They guide organisations and their management what they should do in order to deploy knowledge for sustainable success. An organisation should establish and maintain processes for the achievement of management of knowledge, information, and technologies as very important resources. Processes are the ones that should indicate how to identify, obtain, maintain, protect, use, and evaluate the need for those resources. If necessary, the organisation should share such knowledge, information, and technology with all its interested parties as one of the constituents in the chain of sustainable success.

When it comes to knowledge, it is necessary to say something about the organisational knowledge, as a very important segment in achieving sustainable success. Organisational knowledge addresses the need to detail and maintain knowledge that the organisation has acquired, including the staff`s knowledge, to ensure the ability to achieve the conformity of products and services. The process of reviewing and managing the existing and additional knowledge needs to take into account the context of the organisation, including its size and complexity, risks and opportunities which it has to deal with, as well as the need for knowledge availability and accessibility. Striking a balance between knowledge possessed by competent people and knowledge that may be accessible in other ways is at an organisation`s discretion. It is important to incorporate knowledge in products and services, "because intellectual capital and improvement of knowledge and understanding of consumers are among the most important outputs of the knowledge conversion process." (Arsovski, 2016). Depending on an organisation`s environment, constant improvements and innovations are essential for sustained success. Improvements are made to existing products, services, processes and the like, so successive improvements breed innovations, new products, new services, new or innovated processes, and so on. Continuous learning of customer demands, but also of competitive opportunities provides a basis for effective and efficient improvements and innovations. This improve-innovate chain coupled with continuous learning and knowledge dissemination, is illustrated in Figure 1.

Learning, improvement, innovation and knowledge can be applied to products, processes and their interfaces, organisational structures, management systems, human aspects and culture, infrastructure, work environment and technology, as well as connections with relevant interested parties. The basis for effective and efficient improvement, innovation and learning is the ability and possibility of people in an organisation to make conclusions based on the analysis of data and applying the lessons learned (ISO 9004:2009).

When it comes to these issues, an organisation also needs to assess risks related to the planned innovation activities, including the consideration of potential impact on the organisation of changes, and prepare preventive measures to mitigate these risks. The organisation should encourage improvement and innovation through learning and, in order to achieve a sustained success, it is essential for it to be a "learning organisation" and that this learning integrates the capabilities of individuals with those the organisation.

Learning that integrates the capabilities of individuals with those of the organisation is achieved by combining the knowledge, thinking patterns, and behaviour patterns of people with the values of the organisation. This involves consideration of the organisation`s values, based on its mission, vision and strategies, supporting initiatives in learning, and demonstrating leadership through the behaviour of top management, stimulation of networking, connectivity, interactivity and sharing of knowledge both inside and outside the organisation, maintaining systems for learning and sharing of knowledge, recognizing, supporting and rewarding the improvement of people's competence, through processes for learning and sharing of knowledge, and appreciation of creativity, supporting diversity of the opinions of the different people in the organisation. Rapid access to, and use of, such knowledge can enhance the organisation`s ability to manage and maintain its sustained success (ISO 9004:2009).

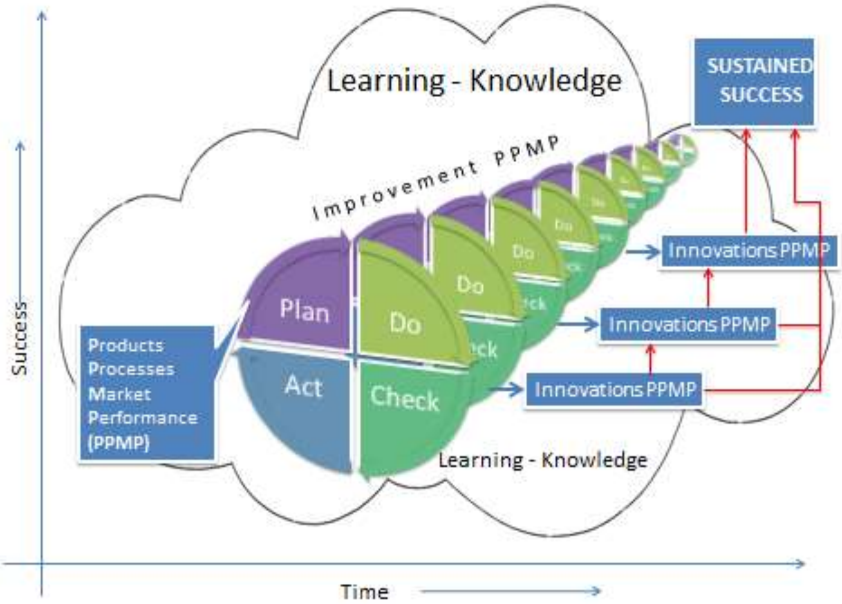

Figure 1. Learning, improvements, innovations and knowledge to sustained success

Learning and knowledge become particularly important with the application of the process approach, especially the “process owners” and “risk owner” aspects as the connected roles with risk-based thinking, and the approach implying that an organisation is a regulated set of processes that recognizes and efficiently manages risks. Risk defence is as strong as its weakest link, and the weakest link in one chain of defence is an untrained, demotivated, and dissatisfied employee or team. Here learning acquires a new context dimension.

All this shows how important knowledge is for effective functioning of the financial and banking systems, especially for central banks because without adequate knowledge, mistakes can be catastrophic: inflation, a financial system crash, the exchange rate volatility, and the like. This is because the consequences of such mistakes are not only dangerous for the financial and banking systems, but also for the entire country, and even beyond in case of the most influential financial centres. Therefore, modern financial institutions have been increasingly recognizing that learning and acquiring knowledge are continuous processes and they allocate significant resources for education and training of their employees.

4. Trade-off among risk, resilience and business performances

An aspect of risk is closely connected with vulnerability and resilience of processes and organizations as whole. Quality and product innovations in financial and banking systems depend on success factors on which organizations can:

1) influence and,
2) hardly influence

A business performances are connected with risks related to both group of factors. In figure 2 is presented conceptual model of these relationship.

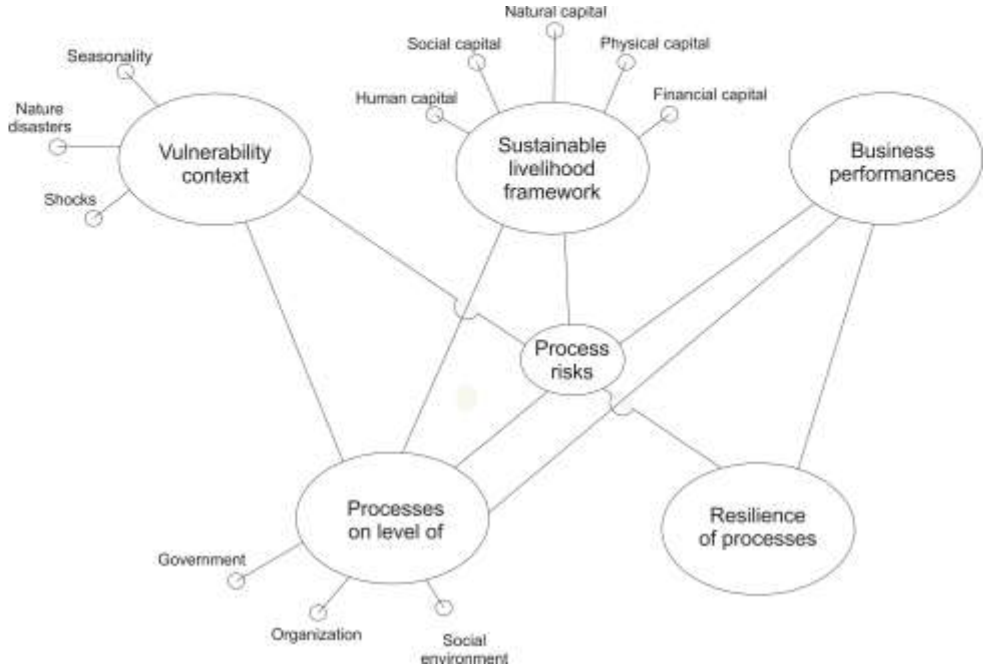

Figure 2. Basic concept of model of impact of risk, vulnerability and capital on processes on business performances

ISDR definition of risk is focused on probability, i.e. risk (R) is defined as a product of hazard (H) and vulnerability (V). In this concept probability can be measured using statistical analysis. ISDR (UN/ISDR - United Nations International Strategy for Disaster Reduction, 2004) definition on vulnerability is focused on the community: "The condition determined by physical, social, economic and environmental factor or process, which increase the susceptibility of a community to the impact of hazards". In literature is distinguished exposure and vulnerability, as well as capacity to cope and recover business performance, i.e. resilience.

In this way resilience is related to adaptation, which is stated in ISDR definition: "Resilience is defined by the degree to which the social system is capable of organizing itself to increase its capacity for learning from past disasters for better future production and to improve risk reduction measures".

In this model in this article is emphasised relation among:

- trends from vulnerability context,
- human capital from sustainable livelihood framework,
- processes on organization innovation level (banks or financial institutions),
- resilience of innovation process, and
- profitability and customer satisfaction as business performances.

Using Berlin Balanced Scorecard Approach (Schmeisser *et al.*, 2004) is possible to quantify a upper oriented perspective in next steps:

- from product contribution to customer contribution margin,
- process costing,
- breakdown of target cost,
- calculation of differentiate customer contribution margins using process costing,
- determine customer cash flow,
- capital budgeting for determine customer value,
- deciding on the internal rate of discount.

For each bank or financial institution using this working model and BSC approach supported by Business intelligence Tools risk manager can measure and predict impact of vulnerability, risks, level of process innovation and resilience of this process on business performances in customer perspectives. One of the most used business performance in customer perspective is quality measured by customer or stakeholder satisfaction. On other side in financial perspective in most cases is used achieved profit.

Using appropriate methods, as statistical, Fuzzy AHP, Genetic algorithm, Balanced Score Card and so on is possible to measure impact of vulnerability, risk and resilience in business performances. It will be subject of further research.

5. Conclusions

This paper demonstrates the changes that are happening in terms of approaches to risk management. Historically speaking, it was mainly focused on legal risk, compliance, and financial reporting. That started to change when organisations began to realize that the biggest losses came from strategic and operating risks so they started devoting their attention to these risks. The paper shows the importance of the human factor in the timely identification and efficient management of operational risks and the importance of people who are the basic strength of organisations. They are vital to risk management, as well as developing the organisation and interaction with customers and other interested parties. The paper clearly demonstrates that there cannot be any success in improving products or services without developing the level of learning and knowledge of the employees within the organisation. As can be seen, organisations are generally the same as their leaders and the people who work there. One cannot expect processes to function better if the people who manage them do not change for the better. Consequently, there has to be a change in management approach to systematically manage risk and at the same time increase the motivation of the staff. This may be achieved through the adoption of modern quality standards and efforts to employ the methods that lead to an increase in the inner-motivation of the workforce. The final conclusion has to be that any significant change in risk management has to fully take into account the vital role of the people in the organisation. To ensure success, they have to be well trained and given the learning and knowledge they need to carry out their tasks and have the freedom to innovate and manage risks effectively.

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Radoica Luburic
Central Bank of Montenegro,
Montenegro
radoica.luburic@cbcg.me