The Role of Human Resource Management Controlling in Organisational Safety

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Abstract: Safety and its corporate culture is becoming a key factor in the lives of technology-driven economic organisations. The development and maintenance of a strategy suitable for monitoring and managing external and internal risks is very important. However, not all organisations aim for perfection in this respect: few of them are aware that aiming for the minimally necessary and sufficient safety is not enough in these days. In order for an organisation to be able to detect and fully meet safety requirements, purpose-built support systems must be operated. Strategic and operative planning, implementation and decision support can be facilitated by area-specific controlling systems. This includes the application of human controlling as an important factor in shaping organisational safety culture. However, a number of result factors exist in human resource management and organisational behaviour, the quantification of which is impossible or very limited, therefore further extension of the traditional asset pool may be essential. The retention of human capital, along with the new controlling methods used for an efficient economy may also enable the examination of soft factors with difficult quantification, thus facilitate the smooth operation of corporate processes. This can also promote safety as a new aspect in the support system of human controlling.

Keywords: safety culture, controlling, human capital, organisational behaviour

1 Introduction

The global and organisational changes resulting from innovative technical solutions have led to a rethought of safety culture. The shift of accent within the theoretical framework of safety resulted in that the primacy of risk management was replaced by uncertainty management. (Krómer, 2011) As a result, organisations and purpose-built systems must be designed and effectively operated which, further to being safe, are capable of development and adaptation. The formation and the directions of development of safety culture may be influenced by human (behavioural) controlling, besides safety systems supporting technology-driven organisational processes. The view that these systems can contribute to, and even must be capable of reshaping safety control and culture, is

becoming stronger (Lazányi, 2010). In this respect, the justification end efficiency of systems supporting safety culture can be reinforced with suitable professional reports and analyses, both the quantifiable and non-quantifiable elements thereof facilitate safe operation.

This article aims to introduce human controlling from a safety point of view, in order to focus the attention to the significance of human factor in the reduction and management of risks in organisational processes. The empirical case analysis of the study also touches the questions of a new approach and examination of a controlling-focused way of thinking (Francsovics, 1995), as well as of control.

2   A safety-focused approach of control

In order to examine the possible connection of safety culture and controlling, the notion of control must be seen in a wider reading context. (Francsovics, 1995) Control is a focal area of management studies, and one of the most important elements of safe operation. In order to achieve organisational objectives, all achievements in strategic fields must be continuously measured and controlled, so that the organisation can amend operations or review objectives on the basis of the feedback. (Milicz, 2010) The main areas of organisational safety-focused control are:

– internal/financial control,
– risk management (including identification and uncovering of risks),
– control mechanisms required by quality control standards.

The study of organisation and leadership is subject to development in multiple directions, on the basis of which the approaches of control are as follows:

– the basis of the area of controlling (management control), as often meant today (Horváth&Partners, 2003), has developed from the trinity of the establishment and planning of enterprise objectives, influence on behaviour, and reporting and feedback (Millicz, 2010),
– the financial and accounting aspects of controlling are: accounting controls, audits, independent internal control, quality assurance (audits, Institute of Internal Auditors: IIA Standards, INTOSAI, analysis of basic processes, production of tool systems for issue detection and feedback in accordance with product and service standards),
– the responsible, ethic organisational (including e.g. the topic of safety culture) behaviour is gaining focus,
– an approach based on the detection and prevention of wilful abuses, fraud management and anti-fraud strategy (CAFS).

Based on the above, the content elements of the financial and internal controlling can be summarised as follows (Millicz, 2010):

Orientation: the achievement of organisational objectives, key roles of managers

Method: compliance with standards, detection of risks

Focus: analysis of any non-compliance with regulations and requirements, identification of causes

Consequences: corrections, decision support, management actions.

We can conclude that internal organisational control is defined as the whole of all those processes, activities and actions that managers and employees carry out in order to achieve organisational objectives, and in order to reduce risks that jeopardise the achievement of such objectives.

3 Theories of safety culture and controlling

Organisational culture is a system of common values and standards that influence the behaviour of members in an organisation. (O'Reilly, Chatman, 1991) (Bakacsi, 1996) This approach can similarly refer to safety culture as a subculture. (Lazányi, 2015)

According to the definition of Reason (1997), the safety culture of an organisation is the aggregate of individual and group values, attitudes, relationships, competences and behaviours, which is realised through the simultaneous presence of the four organisational features of "reporting" (including, among others, data and information gained by using controlling methods), "just", "flexible", and "learning" cultures.

One of the most important element in the establishment of safety culture is planning: the identification of hazards and vulnerabilities, the definition of safety systems and, in relation to this, the continuous development of safety-aware behaviour. Moreover, an important aspect is that constant side-factors of risk assessment and decision processes are uncertainties, which must be taken into account in a consequent way. (Krómer, 2011)

A focal matter in the budget of an organisation is the optimisation of expenses spent on the safe operation of corporate processes. Optimal costs mean that the efforts made to ensure safety are aligned with and proportionate to the risks possible. Expenses less than that can, at a particular level of production, lead to catastrophic circumstances. However, higher expenses are unjustified, as these can lead to bankruptcy. (Reason, 1994, 2001)

One major decision challenge is how to create balance between early predictions in order to reduce risks, along with the costs spent on such prevention, and the expenses spent on the recovery of any damages that have occurred. Decision makers are often reluctant to see that the costs of prevention are demonstrably, by

orders of magnitude, smaller than the cost of damage recovery. However, effective risk management and advanced safety culture does not only protect the company, but can, in the long term, increase its value. Safety culture is, therefore, an asset that can and must be taken into account, and should be handled as part of an economy. Some studies, which help decision-makers find the solutions, deal with the investigation of perceived and hidden dimensions of the investment management risks. (Szilágyi et al., 2013, 2015a, 2015b)

Westrum (2004) has set up the types of organisational culture on the basis of how enterprises handle safety-related information, and has classified cultures as pathological, bureaucratic or generative ones. The features above support that technology-driven organisations of today must belong to the generative category: they actively seek for safety-related information, they reward information "messengers", they share responsibilities and the mistakes and failures they encounter result in far-reaching reforms. The decision support information needed for that can be provided by controlling[1].

4 The main areas of safety and strategic human controlling

The strategies developed for safety have a holistic view. The reason for this is partly because the analysis of hazards, vulnerabilities and risks must be carried out globally, regionally and locally. The other reason is that risk analysis implies the use of multiple disciplines simultaneously (due to e.g. economic, politic, cultural, sociological and psychological factors). Sustainable strategies include, among others, prevention, aversion and damage recovery. Based on this, the elements of systematic risk management culture are:
– early prediction methods,
– a review of hazards using modern tools and methods,
– the increase of efficacy of communication methods. (Krómer, 2011)

The elements mentioned are closely related to human factor. (Keszthelyi, 2014) For instance, it is much more difficult to justify prevention costs in decisions aiming risk reduction, than the costs spent on urgent damage recoveries in emergency situations, though planned prevention costs may be as low as one hundredth or thousandth of recovery costs. (Gardener, 2010) Controlling can support organisational processes and the attainment of modern safety strategies by providing analyses and suitable data and information. The main elements of these are:

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[1]   In fact technology-driven organizations have gains from their controlling and reporting functions are being based on business information systems (Sasvári, 2013), from which the data recovery is much easier.

1) assessment of hazards and risks, and development of early predictions,
2) development of safety culture and of abilities to resist extreme conditions,
3) reduction of risk factors,
4) enforcement of catastrophe recovery capabilities.

In other approaches of safety, the toolset of human controlling (including HR audits, HR strategy, HR scorecards, benchmarking, process cost calculations, human cost planning methods, intellectual capital validation methods, use of competence measurements and maps, self-controlling, knowledge management, process management, performance measurement of processes etc.) and the significance of its support for EEM is especially important because a major proportion of costs is related to human capital, as it is very cost-sensitive without an economy of human resources. (Karoliny, Poór, 2013)

However, measurement of indicators related to intangible assets is practically never used in human controlling. Based on the research of IFUA Horváth&Partners international consulting agency, invisible (or "intangible") assets are, with the exception of some Nordic countries, not measured, as they do not have a yield; companies prefer culture programmes and organisation development methods instead. This approach can also be efficient for the preparation of safety cultures. Therefore, an important aspect is to connect HR and safety strategy with human controlling, which can, through its services, support the smooth and balanced operation of organisational processes (e.g. recruitment, career, the identification of psychological and competence profiles, regular mental-hygienic assessments, targeted prevention programmes, overall programmes aiming at cultural goals, health and safety, identification of cultural factors etc.)[2]. (Karlovitz, 2014) A critical question in this regard is which values shareholders and managers prioritise, and which values they support in order to ensure safety, in the organisational culture. The identification and testing of competences related to safety-awareness is a highlighted field in the human approach of organisational safety, which also includes the question whether the organisation needs brokers who are good at safety, or ones capable of doing precise and punctual work. It is probable though, that e.g. knowledge and information brokers support safety culture by predicting risk information. A powerful incentive can be if reporting of near-misses is rewarded. (IFUA, 2006)

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2   he key competencies had been examined in several articles, studies till now. Csiszárik-Kocsir et al examined the higher education's role and the most conveyed competencies in a primary resarch in 2009. The most useful comptencies are: communication, foreign language and the communicational skills to reach a good position in a work.

	operative human controlling (economy of operative processes) (Körmendi, Tóth, 2003)	strategic human controlling (safety)
time span, time horizon	short	long
Objective	aims at capital return	economy of operative processes
Indicators	- economic calculations, financial indicators - plan-fact comparisons - indicators of economy, performance, organisation (e.g. no. of employees, absences, work hour balance sheets, performance success rate, no. of accidents etc.) - process cost calculations	- non-financial indicators, intangible assets=non-material+invisible assets - HR audit (competence measurement) - strategic indicators: Balanced Scorecard (BSC), Performance Prism, Performance Pyramid System (PPS), Tableau de Board (TdB), Productivity Measurement and Enhancement System (ProMES), Intellectual Capital Statement, Wissensbilanz. - benchmarking - calculation of human capital value (elements: human capital, e.g knowledge, competences, work ethic, attitudes, social capital, e.g. interpersonal connections, information databases, structural/organisational capital, e.g. intellectual property, brand names, organisational culture, management philosophy etc.) (Laáb, 2006) - portfolio analyses

Figure 1

Operative and strategic human controlling (own preparation)

The extension of the administrative and functional role of human controlling can also imply that it is not only the measurements supporting the area of HRM, but also the practical implementation of decisions that it focuses on. Human controlling, in this way, further to being the budget owner, practices a higher level of operation. A key element of the wider service provider catalogue of HR controlling may be the preparation of safety programmes at every level of corporate hierarchy (e.g. sensitizations, health and safety, trainings and education development of the application of purpose-built security systems, development of communication, burnout monitoring etc.).

The strategy-focused interpretation of organisations is also connected with the topic of quality and sustainability[3]. (Pató, 2015) Enterprises that focus on this aspect place a strong emphasis on the coordination of their human resources, business units and processes, information technology and financial resources, for a significant growth of productivity. (Michelberger, 2013) A shift in views took place in this regard recently: the focus on control has been replaced with a stronger focus on the support of strategy and organisational processes. (Wimmer, Szántó, 2006) In corporate practice it means that instead of the promotion of persistent reports and accounts, managerial and business decisions are supported, and organisational learning is being promoted. (Neely-Al Najjar, 2006)

Besides the aspects mentioned so far, the so-canned non-market aspects have substantial influence on the output of the enterprise. Such aspects include, among others, the question of safety. Companies of our days are auditing sustainability in their sustainability reports on the basis of ISO standards, and are outlining specific, substantially well-defined safety aspects (e.g. psycho-social risks, work safety, risk management, trainings aiming at increasing safety, rules and systems to motivate reports on near-misses etc.).

In accordance with the above, it is a tendency that radical economic changes result in shorter time spans in strategic thinking, and accents are shifted from strategies to processes (IFUA, 2006), thus, besides process development and quality objectives, organisational safety is also presented in a new context. The shortening of strategic time spans and the development of information technology requires shorter response times. Also, the efficiency of organisational decisions may be largely affected by the quantity and quality of the information received (Szeghegyi, 2011), as too much or irrelevant information can slow down decision making, or can lead to wrong decisions[4]. Furthermore, a most focal aspect in the organisations, as seen in front of a socio-technical background, is that information is also available to customers and competitors, which also gives rise to safety concerns.

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3   A proven method for the strategic inplementation of the sustainability aspects could be the so called Sustainability Balanced Scorecard. (Fülöp, Bereczk, 2015)

4   The appropriately chosen information systems can help to provide the information needed for organizational processes and decisions (Sasvári, 2012).

5 Human controlling in practice

My field work was done at the Budapest premises of a strategically significant Hungarian pharmaceutical enterprise, in the human controlling organisational unit.

Basic data of the enterprise:
– legal form: private limited company, with nearly 85% of the shares being in foreign ownership.
– net turnover within the 2014/2015 business year: HUF 129.2 bn,
– the products of the company are sold in 60 countries; 75% of the turnover in 2014/2015 business year came from export sales, out of which
– the most important strategic markets were: Russia, CIS-countries (EUR 131.5 m), Middle and Eastern European region (EUR 134 m)
– number of employees: 4000.
– activities: production of pharmaceutical products, treatment and disposal of hazardous waste, recycling of waste, human health services, scientific and technical research and development, engineering, technical consulting etc.
– 9% of the turnover, i.e. nearly HUF 12 bn is spent on research and development.

For a safety-focused examination I analysed the deep interviews made with the human controlling manager, and I examined the practical operation of the HR controlling organisational unit. The below relevant aspects, features and risks can be mentioned in connection with safety and controlling, as results deducted from the empirical analysis.

The most important risk analysis policy elements of the organisation are:
– the enterprise considers that it is not full prevention of risks that leads to success, but a reasonable minimisation of adverse effects of risks on social objectives,
– the enterprise considers risk management as a tool of efficient enterprise management,
– their opinion is that as not all aspects of risks can be identified administratively and in advance, management should, in decision making regarding risks, rely on the competences, experience and judgement of employees in the course of work done in accordance with internal expectations and rules,
– area leaders are responsible for the identification and categorisation of risks pertaining to their own areas, as well as for the preparation of the relevant action plans,
– internal control analyses the full range of risks, and reports to executive management at least once a year about the operation of risk management, internal control mechanisms and the related company management functions,

    – it examines independently and objectively, on the basis of the approved annual audit, whether the internal control systems established are capable of handling the risks discovered effectively.

The place and role of human controlling within the organisation:
– it is highly-positioned (taking company-specific aspects into account, human controlling has a highlighted position among controlling systems).
– the "secret weapon" of HR: executives understand hard data, i.e. they need cost and possible losses information (controllers convert "soft signals" into "hard numbers" for decision makers),
– It is not only on the level of costs that HR controlling deals with human resources economy, but it also establishes operative principles, continuously monitoring and following up on them, while further develops them, and interposes at decision points, whenever needed (these principles could as well include the support of advanced implementation of safety),
– as controlling is capable of providing more and more professional support materials to executives and managers, often there's no need for economic intervention of controlling.

Areas of human controlling and safety:
1) employee competences,
2) economy of human resources,
3) data security.

Aspects and characteristics in connection with competences:
– competences are among the most focused areas (application of psychological tests, especially for executives),
– the purpose of testing is to pick the most loyal, safety-aware and contented colleague,
– proven version of practical testing, e.g. the application of the "principle of gradual access" (the most reliable colleagues successfully passing the "trials" get access to larger amounts of and more and more sensitive information),
– loyalty is a human aspect of highlighted importance, as smooth operation is ensured by contented employees,
– reliability is one of the most sensitive and critical competence continuously tested,
– in order to eliminate the risks resulted from human errors and faults, the principle of "every one is in control of another" is applied (however, there is a risk that overcontrol turns out to be a hindrance in open communication and trust) (Tóth Bordásné Marosi, Bencsik, 2012).

Characteristics of human resources economy and safety:

- the accuracy of recruitment planning and the alignment to business processes thereof is especially important (the company employs a stretched number of staff just enough for a viable operation),
- One of the most sensitive organisational processes is the topic of reorganisation,
- the elimination of risks arising from the changing staff number is an important concern, **but**
- the HR controller is not aware of what is scheduled at HR strategic partners (risk: can cause discrepancies),
- the most critical one of all human risks is the loss of irreplaceable knowledge; the largest amounts of cost are taken up by the "war for talent",
- there are no indicators related to training-return/yield or intangible indicators, or they are not applied.

Characteristics of data security:
- there is no written security policy (the provisions of the Hungarian Labour Code and the internal organisational rules apply),
- a general principle is "to protect employees' individual rights at any cost", **but**
- top executives (CEO, HR director, senior financial manager) can get access to every sensitive data at any time without filtering,
- the complex information related to particular employees is only accessible for the HR director and the CEO,
- middle managers and employees can only access information which are not suitable for individual identification of employees,
- accurate, proactive and transparent communication is focal in reporting by controllers (an important concern is that colleagues think within the same interpretation framework at data exchange),
- controllers only have the opportunity to see data on the employee level, so that they can assess and find out which employee has caused any discrepancy between plan and fact data,
- IT policy: employees cannot, without authorization, send any data in emails; any mistakes are only found out afterwards, which is an indication of data security issues.

It can be concluded on the basis of the above that even adherence to the regulations and methods applied will not always guarantee full protection in organisational processes. Therefore, the development of organisational safety culture (standards, behavioural patterns, values etc.), including the enhancement of safety-awareness, must be continuously kept on the agenda.

Conclusions

The methodology of controlling and the implementation of organisational safety using functional purpose-built systems have limited scope of interpretation using traditional approaches of plan-fact comparisons. In order to reduce risk factors of organisational processes, the tools of controlling have to be extended in the future, e.g. intangible indicators applicable as tools of human controlling can contribute to the establishment of organisational safety and to the enhancement of safety culture.

An academic approach of human controlling can facilitate the response of controlling methodology to the new challenges of the digital era, including problems and possible solutions of safety. It must be seen though that, in an age of corporate cultures less and less typeable, every normative approach can be counter-productive. (Amalberti, 2013) Accordingly, besides asset values measured by traditional accounting (e.g. funds, customer base, tangible and intangible assets etc.), the invisible assets of an organisation (e.g. patents, methods or the efficiency and quality of management) can also include such factors as client capital, employee competence and safety culture.

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