BUSINESS CONTINUITY MANAGEMENT – THE PERSPECTIVE OF MANAGEMENT SCIENCE

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Abstract

Background. Business Continuity Management (BCM) is a response of management practitioners to the risk appearing in a turbulent environment. Recent publications consider BCM in pragmatic categories often deprived of its embedding in management science.
Research aims. The paper enters into a discussion of the essence and status of Business Continuity Management (BCM) in management sciences. It includes considerations of the following constituent subjects: the notion of BCM, Evolution of BCM, formal status of BCM in perspective of management science, directions of current BCM research.
Method. The argumentation presented in this paper is based on the critical analysis of the literature and synthesis.
Key findings. It is recommended to base the attempt of defining BCM on elements indicating identity of the management domain. Currently, BCM orientation is holistic and its meaning is global and its formal status in management sciences can be specified from the point of view of the content and from the point of view of relations. Due to its crossfunctional character BCM maintains relations with several domains of management.

Keywords: Management, Risk, Continuity, Organization, Process

INTRODUCTION

Already in 1969 Drucker in his book titled *The Age of Discontinuity*, anticipated an escalation of changes which will bring organization managers entirely new challenges. One of the discussed changes is undoubtedly related to the stormy transformations taking place in the organization environment. It is this very turbulent environment where the reasons for the origin of Business Continuity Management (BCM) are to be sought as a response from management practitioners to the appearing risk.

The purpose of the hereby paper is to identify the essence and formal status of BCM on the grounds of management sciences. Such an aim for the formulation of results from the inadequacies noted by the author in the to-date publications dominated by perception of BCM in pragmatic categories often deprived of its embedding in management science.

The following theses have been assumed in the paper:

1. Thesis 1. BCM is not a domain of a selected scope of business operations (e.g. IT) but is of cross-sectional character and combines activities of the numerous functions of an organization in a fundamental way.

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2. Thesis 2. BCM evolves following the changes of conditions in which the organization operates. Evolution of BCM has at the same time an inclusive character and is marked by the increase of significance of BCM from the hierarchical point of view of an organization.
3. Thesis 3. Determining the formal status of BCM in management sciences is possible with the use of several complementary conceptual categories.
4. Thesis 4. Scientific research of BCM proceeds within several non-competing and complementary currents.

The author of the text utilized mostly the method of critical analysis of writing and synthesis.

REVIEW

The Concept of Business Continuity Management

In relatively numerous scientific publications on BCM their authors define this concept in a variety of different ways. Msezane and McBridge (2002, p. 351) specify BCM in relation to classical process of management. In the context of this process, based on Fayola's proposal, BCM can thus be understood as an ongoing process of risk assessment and management with the purpose of ensuring that the business can continue if a given risk materializes. To a great extent Randeree, Mahal, and Narwani (2012, p. 473) understand the essence of BCM in a similar manner as their approach is directed toward ensuring continuity of critical processes. While according to the definition of the Business Continuity Institute (*Business Guide...*, 2007) BCM can be defined as a holistic management process that identifies potential impacts that threaten an organization and provides a framework for building resilience with the capability for an effective response that safeguards the interests of key stakeholders, reputation, brand and value creating activities. What is more, Foster and Dye (2005, p. 107) also stress the organizational aspect of BCM which in their opinion can be regarded as a process of developing advance arrangements and procedures that enable an organization to respond to an event in such a manner that critical business functions continue with planned levels of interruption or essential change. In the light of an abundance and variety of operational definitions of BCM it is worth presenting the definition elements which on the one hand are vital for understanding the term and on the other one do not arouse controversy, these are:

1. The objective. The main objective of BCM is to ensure continuity of the organizations point of view of these processes which are key for the core of the business and for control of the risk level.

2. The priorities. BCM activities should be addressed especially to critical business processes.
3. The scope. BCM activities should cover the full period of time, which includes the moments before, during and after a disaster. In connection with this, BCM needs preventive, repressive and corrective actions.
4. The disposition. BCM should be a permanent and interactive management process, not only a short term process.

Even though definitions of BCM seemingly expose terms with negative associations (danger, disruptions, risk) it refers to positive results such as survival and development of the organization.

Evolution of Business Continuity Management

Most authors (Pitt & Goyal, 2004; Foster & Dye, 2005; Msezane & McBridge, 2002) situate the beginnings of BCM in 1970's. In the explanations of BCM origins two major approaches become apparent:

1. Narrow approach (e.g. Foster & Dye, 2005). Here, changes of BCM are coherent with changes taking place in IT systems, technologies, threats to information, IT infrastructure.
2. Broad approach (e.g. Pitt & Goyal, 2004). In this approach, interpretation of BCM changes falls outside the IT scope. Nevertheless, here the origins of BCM also focus on IT issues in particular.

Table 1 presents the key stages of BCM development.

Table 1. BCM Stages of Development

Decade	1970's	1980's	1990's	2000's
Main orientation	Technology (especially IT)	Auditing and control	Value-based	Holistic, anticrisis and proactive
Scope	Only technology; Focus on single and large systems	All facilities; All systems – corporate and departmental	Hold down competitive advantage; Includes customers and suppliers; Entire organization, including human and social issues	To assure capability of existence and expansion; Entire organization and environment; Includes all stakeholders
Impulse	Especially external (e.g. flood, fire)	As earlier, and regulatory pressure	Strong stakeholders in value systems	Weak signals; Risk analysis; Incidents
Way	Contingency process focused on hard systems	Contingency process outsourced Monitoring of compliance	Business processes addressed to business managers	Holistic management system; Networks approaches; Flexibility
Importance	Operational	Tactical	Strategic	Global

Source: Own elaboration

The stages present BCM in all the given areas that have undergone substantial changes, such as:

1. In terms of dominating orientation the narrow focus on technology was consequently replaced with holistic organization,
2. In terms of scope, the area of technology and the organization system expanded to the entire organization and its environment,
3. In terms of the impulse starting operation of BCM a shift can be observed from external causes of a typically random accidental nature to a more diversified, often difficult to notice stimulus, a significant change in the nature of BCM, from reactive to proactive, can be noticed,
4. In terms of organizational solutions, the change concerns the movement from a narrow approach toward the process of a holistic system of solutions implementing a network approach,
5. In terms of importance, BCM underwent an important metamorphosis from operational to global. The latter means that efficiency of BCM activities goes beyond the borders of a single organization.

Formal Status of Business Continuity Management – Perspective of Management Science

It is difficult to regard the findings of the BCM status in literature as homogeneous. Nevertheless, literature analysis allows us to single out two major tendencies in this area: (a) specifying BCM from the point of view of content, and (b) pecifying BCM from the point of view of relation. Interpretation of BCM from the point of view of content embraces attempts to specify it with the use of management sciences terms which reflect its role and scope in the organization management system. Table 2 presents an overview of such interpretations.

The various ways of understanding the status of BCM presented in Table 2 do not compete against each other but are rather complementary.

Specifying the status of BCM from relation perspectives is slightly different. In this convention BCM is compared with other spheres of management. The most important selected comparisons are presented below. Thus e.g. Copenhaver and Lindstedt (2010) regard BCM as one of the parts of Business Resilience (BR) which in turn they see as the full range of aspects and efforts undertaken to protect and continue an operational organization. In their opinion Business Continuity is a subset of BR. In this perception of BCM is one discipline that, combined with other related disciplines, makes up BR (Copenhaver & Lindstedt 2010). The described dependence is represented with the below formula.

$$BR = BC + IT\ DR + EM + ERM + (\text{and so on})$$

Table 2. Selected Interpretations of BCM From the Point of View of Content

Author	Status	Description
Msezane and McBridge (2002), Randeree et al. (2012)	BCM as a process	BCM has inputs and outputs; BCM is ongoing process; BCM use feedback; BCM as a process should be defined, managed, measured and controlled
Ning and Wong (2009)	BCM as a function and profession	BCM as a function should be attributed to respective managers and staff; BCM requires specialized competences; BCM may be manager's specialty
Pitt and Goyal (2004), Copenhaver and Lindstedt (2010)	BCM as a discipline	BCM has own goals and tasks; BCM may be part of planning process in organization BCM has own scope of matter; BCM may be treated as a relatively separate part of a management system
Foster and Dye (2005)	BCM as a programme	BCM may be realised using convention of programme; BCM should have: requirements for programme, policy and goals, requisitive resources; BCM should use formal procedures
Jedynak (2011)	BCM as a system	BCM may be treated as a subsystem in the global management system on an organization; BCM – using systemic approach - should be holistic; BCM may use standards of management systems (e.g. ISO22301)

Source: Own elaboration

Listed are BCM related disciplines such as: Information technology disaster recovery (IT DR), Emergency Management, Enterprise Risk Management (ERM) and others. In general, interpretation of Copenhaver and Lindstedt is based on two premises. Firstly, in the centre it places Business Resilience understood as shaping organization resistance to various types of disruptions. Secondly, shaping of this resistance is superior to various management domains co-existing in a complementary manner. The list of these domains is not final. Msezane and McBridge (2002) in turn confront BCM with risk management. They note that BCM is firmly linked to risk management (RM). Simultaneously, however, BCM does not distinguish between insurable and non-insurable risks. Differences in optics of comparison management domains are presented in Figure 1.

Randeree, Mahal and Narwani (2012) analyzed connections between BCM and other areas of management on the plane of normalized standards of management systems. In this specific approach BCM also embraces some management aspects present in such fields as quality management, health and safety management, environmental management, information security, supply chain security, risk management, food safety, social responsibility and others. The more important standards of the above mentioned normalized systems of management are predisposed to integration which in the case of implementing it should lead to a synergy effect

among individual fields. Botha and Von Solms (2004) deal with one of the key BCM functions that is Business Continuity Planning (BCP). They analyzed the content of the function mostly on the ground of Information security (IS) which in their opinion is a significant element of BCM. According to Botha and Von Solms (2004) the key components of BCP are Contingency Planning (CP) and Disaster Recovery Planning (DRP). Even though the discussed interpretation is limited to the IS area, it contributes essential observations. Namely, it demonstrates that BCP, as a function of BCM, should include activities addressed towards both potential (CP) and existing (DRP) incidents.

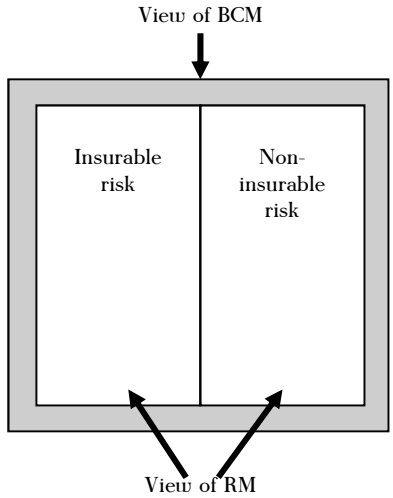

Figure 1. BCM vs. Risk Management Optics

Source: own elaboration

The above discussed narrow approach also includes deliberations of Foster and Dye (2005) on BCP. The authors note accurately that BCP is difficult to compare with planning functions in other areas, for instance infrastructure planning, because it is cross-functional in nature. Whereas the connections between BCP and other planning functions can be clarified on the grounds of information dependency. And so BCP requires input from all the core business units and all the important disciplines, e.g. Corporate Infrastructure Resource Management (CIRM).

In the current planning of explaining BCM relations there is also the Ning and Wong (2009) analysis. Although they undoubtedly confirm the connections between BCM and crisis management and disaster recovery planning, they recognize the primacy of relations between BCM and strategic management. They indicate the need to study very important aspects of BCM, related to long-term planning of organizational success and the

preservation of future competitiveness. In general, Ning and Wong emphasize the necessity to integrate BCM and strategic management on several planes; long-term direction, achieving an organizational advantage, matching organizational resources to achieve corporate objectives and operational strategy.

Contemporary Research Directions in Business Continuity Management

Four major trends of BCM research can be noted in the literature, these are: (a) conceptual and interpretative research, (b) methodological research, (c) effectiveness research, and (d) sector and exemplification research.

Conceptual and interpretative research suffices in solving BCM problems as a management field. One of the leading research problems here is the attempt to specify the scope of BCM with the intension of addressing a too relatively distinct area which can be met by separate research programmes (Copenhaver & Lindstedt, 2010). Research questions connected to this problem may concern, among others, ontological issues. The point is to substantiate the need to distinguish BCM from the entire area of management sciences and formal conditions to separate this field. A prerequisite research question, in terms of a discussed trend, raises the question about differences between BCM and related areas of management (Botha & Von Solms, 2004). Conceptual and interpretative research refers to various levels of BCM details, i.e. the level of concept, models and management methods. Discussion on the conceptual level concerns the selection and justification of a set of principles which organizations should follow as part of BCM (Copenhaver & Lindstedt, 2010). It seems that due to substantial generality typical of the management concept required on this level to develop, as part of management sciences, a certain consensus thus counteracts competitive proposals of BCM principles which, at the same time, will be one of activities preventing progressing partitioning management sciences. On the level of management model considerations, framework solutions indicating adequate approaches toward BCM are included (Msezane & McBridge, 2002; Pitt & Goyal, 2004; Randeree et al., 2012). Here, diverse solutions are accepted due to premises adequate to the situational approach of management. Various methods of operational implementation of accepted objectives and assumptions are complementary to BCM conceptions and models.

The methodological study of BCM proceeds analogically as in the case of other areas of management. Due to pragmatic objectives of management sciences the methodological current is always extremely critical because of its utilitarian advantages. Development of this trend has brought about management tools acting as directives for efficient management of organizations.

Msezane and McBridge (2002) developed an integrated approach in the BCM methodology. In their opinion methodology should embrace three key dimensions, i.e. risk categories (hazard, strategic, financial, operational), levels of management (strategic, tactical, operational) and functional areas (e.g. technology, process, people, infrastructure). Furthermore, they emphasize the necessity to embed BCM programmes in organizations and in its both competitive and general environments.

In her study Jarvelainen (2012) develops a methodological trend of BCM in inter-organizational relations. The starting point is the assumption of the necessity to implement BCM in an area exceeding the scope of a single organization which is justified with the common use of outsourcing and with the creation of various types of inter-organizational ties. In this case conceptualization of detailed research issues has its origins in the concept of 4 perspectives authored by Herbane, Elliott and Swartz (2004), which includes: human resources and responsibilities, business continuity planning and process, communications and structures, attitudes and ownership. Jarvelainen (2012) suggests some methods for enhancing business continuity in inter-organizational relationships, attributing given methods to adequate levels of organization management. What is more, Randeree et al. (2012) take this part of the methodological trend further which is dedicated to the maturity of BCM model. According to them, diagnosis and perfecting methodological solutions as part of BCM are a vital element of BCM research, it can be regarded as a kind of maturity cycle management. The BCM maturity development proposal created by Randeree, Mahal and Narwani includes five levels, i.e. ad hoc (the lowest level), manager, defined, integrated, optimized (higher level). Five functional areas (technology, facilities management, processes, people, organizational soft issues) are attributed to these levels

Research by Botha and Von Solms (2004) contributed two additional themes to the methodological trend. Firstly, the authors acknowledge the connection between the BCM methodology and the size of an organization thus modelling the BCM methodology exclusively in relation to small enterprises. Secondly, the authors develop the issue of BCM implementation methodology and design a four-stage cyclic approach to BCM methodology implementation. The contribution Ning and Wong (2009) made to the methodological trend of BCM research concerns starting studies of skills of business continuity managers. As part of this specialization they indicate six fundamental managerial skills: general managerial, analytical, communication, leadership, coordination, innovation.

Cerullo and Cerullo (2004) focus their interests on one of the basic BCM tools, i.e. the Business Continuity Plan. Their research concentrates mostly on the structure and content of this document.

Lindstrom, Samuelsson and Hagerfors (2010), who research business continuity planning methodology, are authors of the "Staircase" methodology approach. Its fundamental quality is dedicating a part of BCP as adequate for the entire organization and part for individual departments.

The methodological approach to BCP authored by Foster and Dye (2005) is, in turn, marked by: the need to integrate continuity and strategy, necessity to identify dependencies between the key determinants of key processes continuity and the necessity to accurately appoint responsibilities and powers connected with BCM.

Morwood (1998) in turn deals with the methodology of shaping consciousness and running trainings in BCM. He is the author of framework methodology as well as organizational and technical tools applied in the respect mentioned.

Pitt and Goyal (2004) show the importance of implementation of individual BCM tools. And so e.g. according to them the methodology of developing and implementing Business Continuity Planning as a part of BCM should embrace such stages as: project initiation, risk assessment/business impact analysis, design and development of the BCP, creation of the BCP, testing and exercising, maintenance and updating. Effectiveness research is a very interesting direction of BCM studies. Measurement and evaluation of BCM efficiency are to be regarded as activities justifying the usefulness of implementing this function.

Copenhaver and Lindstedt (2010) suggest verifying BCM efficiency with the use of such measures which are applied to other areas of organizational operations or even concern results of its activity as a whole. Their proposal includes an attempt to quantify the influence of BCM on: (a) customer satisfaction, (b) reduction in time to market, (c) improvement in schedule performance, (d) reduction in defects, and (e) return on investment. Irrespective of the above, BCM measures specific only to this function can also be applied. These can be, among others, realized as obtained security certificates or maturity levels of used solutions granted by independent experts.

The final of the four listed BCM research directions concerns sector-related and exemplification studies. The research carried out as part of this trend embraces, among others, comparative studies of causes and scope of implementation of BCM principles in organizations including their diversity with regard to the activity sector, age and size (Pitt & Goyal, 2004). Studies within the scope of the discussed trend also deal with BCM solutions applied due to key business processes, the organization's presence in its connections network as well as the number and type of locations where the operations are held (Foster & Dye, 2005). Similarity between sector-related with exemplification studies and methodological studies can be noted. Conducted research sometimes results in methodological

proposals which are however addressed to organizations of specified size, (Botha & Von Solms, 2004) or to organizations of specified sector e.g. banking (Randeree et al., 2012). They then mirror the specifics, management process qualities, restrictions and formal and legal conditioning concerning these organizations.

Yet another type of study as part of sector-related and exemplification trends tackle BCM in regards to relations between organizations representing selected sectors, e.g. IT, Services, Insurance/banking, Manufacturing in the case of which relation content determines threats of interest to BCM (Jarvelainen, 2012). As part of the discussed direction of research there are also trends specific for individual organizations. This research, of a case-study nature, is usually exemplifications of good practices of BCM, e.g. research on BCM at Boeing (Castillo, 2004).

Table 3 presents in a systematic manner key research questions existing in the 4 discussed directions of research.

Table 3. Key Research Questions as Part of BCM Studies

Direction of research	Key research questions
Conceptual and interpretative research	What is the formal status of BCM? Can BCM be isolated as a research subject? And if so, how? What are the relations between BCM and related management areas? Is there a set of key principles specifying the BCM concept? What are the directions BCM evolves towards and what conditions determine the evolution?
Methodological research	What areas of an organization's operations are to be taken into account when modelling BCM methods? What determines selection and implementation of BCM methods? With what and how should BCM methods be integrated in order to streamline an organization's management system? What should framework models of individual BCM methods and tools look like? How and with the use of which methods can BCM be efficiently implemented in an organization? What competencies are indispensable for managers as part of BCM?
Effectiveness research	What measures are to be used in order to evaluate efficiency of BCM as a management domain? Which organization operational results are shaped by BCM and how?
Sector and exemplification research	What is the difference in implementation of BCM in organizations of various sizes, ages and sectors? What other variables require introducing a diversified approach to BCM in organizations? How does the content of relations between organizations of selected sectors shape the requirements of BCM? What do BCM practices in specific organizations look like and can they serve as a model for other organizations?

Source: own elaboration

CONCLUSIONS

Conducted studies allow us to formulate the following conclusions:

1. It is recommended to base the attempt of defining BCM on elements indicating identity of the management domain. These defining elements are: the objective, the priorities, the scope and the disposition. This type of approach has both scientific and pragmatic advantages.
2. Evolution of BCM has led to a fundamental change of meaning and perception of this management domain. The changes are visible above all in the area of dominating orientation and meaning of BCM. Currently, BCM orientation is holistic and its meaning is global.
3. The formal status of BCM in management sciences can be specified from the point of view of the content and from the point of view of relations. BCM content is conveyed with the following notional categories: process, function and profession, discipline, programme, system. The listed categories together reflect the complexity of BCM. Simultaneously, due to its crossfunctional character BCM maintains relations with a series of other domains of management.
4. To-date scientific research of BCM has been carried out in 4 major directions: (a) conceptual and interpretative research, (b) methodological research, (c) effectiveness research, and (d) sector and exemplification research.

The increasing complexity of the environment and the internal situation of organizations have led to BCM gradually gaining more importance as a management area. This practical tendency should be mirrored in scientific research in the above mentioned areas, and new areas, of studies.

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ZARZĄDZANIE CIĄGŁOŚCIĄ DZIAŁANIA – PERSPEKTYWA NAUK O ZARZĄDZANIU

Abstrakt

Tło badań. Zarządzanie Ciągłością Działania (Business Continuity Management – BCM) jest odpowiedzią praktyków zarządzania na ryzyko pojawiające się w turbulentnym otoczeniu. Aktualne publikacje przedstawiają BCM w kategoriach pragmatycznych, często nieosadzonych w naukach o zarządzaniu.

Cele badań. W artykule podjęto dyskusję nad istotą i statusem Zarządzania Ciągłością Działania (BCM) w naukach o zrządzaniu. Obejmuje to rozważania na temat BCM, w szczególności dotyczące samego pojęcia, ewolucji koncepcji oraz jej formalnego statusu z perspektywy nauk o zarządzaniu, a także aktualnych kierunków badań.

Metodyka. Zaprezentowany wywód opiera się na krytycznej analizie literatury przedmiotu oraz syntezie.

Kluczowe wnioski. Rekomenduje się aby próbę definiowania BCM oprzeć na elementach wskazujących tożsamość zarządzania. Obecnie, orientacja BCM jest holistyczna jej znaczenie globalne. Formalny status Zarządzania Ciągłością Działania w naukach o zarządzaniu może być określony z dwóch perspektyw - zawartości i relacji. Z powodu swojego specyficznego charakteru BCM wchodzi w relacje z wieloma obszarami zarządzania.

Słowa kluczowe: zarządzanie, ryzyko, ciągłość, organizacja, proces