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BUSINESS CONTINUITY MANAGEMENT
SYSTEM BS 25999-2 IN POLAND:
EMPIRICAL STUDIES

Abstract: This paper presents the unique results of the first survey in Poland in the area of business continuity management system BS 25999 (BCMS). Key motives, barriers of implementing and results of BCMS are identified, both theoretically and practically during the surveys. Figures of quantitative survey among all 158 companies in Poland with “ISO/IEC 27001” allow to verify the research hypothesis. There are many factors influencing the perception of BCMS, the main are connected with specific of every organization and branch. Normalized management systems, independently of normative basis, are similar because of systematic approach and prevention aim, so results have practical implications for every organization.

Keywords: Poland, BS 25999, business continuity management system, BCMS, ISMS.

JEL classification: G32, H12, L21, M15.

SYSTEM ZARZĄDZANIA CIĄGŁOŚCIĄ DZIAŁANIA BS 25999-2
W POLSCE: BADANIA EMPIRYCZNE

Streszczenie: W niniejszym artykule przedstawione zostały rezultaty pierwszych badań empirycznych z obszaru systemowego zarządzanie ciągłością (SZCD) działania według wymagań BS 25999. Zarówno w ujęciu teoretycznym, jak i praktycznie zaprezentowane zostały kluczowe motywy, bariery wdrożenia oraz rezultaty SZCD. Postawione hipotezy badawcze zostały zweryfikowane w wyniku badań wśród
158 organizacji w Polsce posiadających system zarządzanie bezpieczeństwem Informacji (SZBI) według wymagań ISO/IEC 27001. Zidentyfikowano, że istnieją różne czynniki wpływające na postrzeganie SZCD, indywidualne dla każdej organizacji o uzależnione od branży. Znormalizowane systemy zarządzanie, niezależnie od podstaw normatywnych, są podobne do siebie z uwagi na systematyczne podejście i prewencyjne ukierunkowanie działań, a tym samym zaprezentowane rezultaty badań mają praktyczny wymiar dla różnorodnych organizacji.

Słowa kluczowe: Polska, BS 25999, ciągłość działania, system zarządzanie, SZCD, SZBI, BCMS, ISMS.

Introduction – risk and continuity management

Risk is defined as effect of uncertainty on objectives [ISO 31000 2009, p. 8]. Risk is an element of every decision made and realizing activities in the direction of achieving one’s goals. In practice, there is a variety of definitions and meanings regarding risk, but in most cases, “risk” has one of three meanings [Hampton 2009, p. 4]: the possibility of loss or injury, potential for a negative impact, and likelihood of an undesirable event. In every case threat recognition is a primary element in risk identification. There are two sources of threats – internal and external [Heat 2007, p. 22]. Risk management are circumscribed as coordinated activities to direct and control an organization with regard to risk [ISO Guide 73 2009, p. 4]. Risk management (RM) is an element of business continuity and it is important to include this element in a system [Haimes 2009]. Business continuity management (BCM) is described as a holistic management process that identifies potential threats to an organization and the impacts to business operations that those threats, if realized, might cause, and which provides a framework for building organizational resilience with the capability for an effective response that safeguards the interests of its key stakeholders, reputation, branch and value-creating activities [BS 25999-2 2007, p. 4]. The difference between RM and BCM is in regards to [Good Practice Guidelines 2008, p. 18] three main elements: method (analysis risk in RM and assessing effects in BCM), main elements (RM concentrates on threat and likelihood in BCM the most important element is BIA – Business Impact Analysis) and scope (RM regard to all business and undertaken activities, BCM concerns to key products and services which shall identify within the scope of the BCMS). No organization can have complete control over its business environment; therefore, it is essential for companies to have business continuity
management with risk management [Hampton 2009, p. 6]. In this place it ought to indicate key words in that area of management: crisis, preparedness, disaster, mitigation, recovery, crisis management, disaster management, preparedness. There are many definitions [Eshghi and Larson 2008; Lettieri, Masella, and Radaelli 2009; Jin 2010] whose meanings depend on inter alia: countries, industry, source of risks, local circumstances, experience of authors. Those areas have been described many times [Khodarahmi 2009; Schenker-Wicki, Inauen, and Olivares 2010].

The problem with risk management and business continuity management is the organization's attitude to this area in business. It can indicate that every economic enterprise, non-government organization and government institution takes into account the necessity of every-day risk management in the direction of business continuity management in the long term. Risk management and business continuity activities are conducted in many ways, in intuitive and systematic approaches. Unfortunately, there is a lack of a systematic approach to that area of management, which probably results from no negative experiences in the past with business continuity [Abrahamsson, Hassel, and Tehler 2010], but it is very important to learn from other experiences [Carmeli and Schaubroeck 2008]. Of course, it can indicate that every company has its own threats and experiences, for example internal procedures or implementing normalized management systems (quality ISO 9001 – QMS, environmental ISO 14001 – EMS etc.), and that these are ways of minimizing risk in business. But motives for implementing normalized management systems are wide, and there is not always a connection between system and risk minimization in that area of business, which can result from a “must-have certificate, not a good system.” Additionally, a normalized management system focuses on norm requirements that are connected with a part of business. The conception of risk management covers all organization's activities. Business continuity management deals with key products and services that are very important in long perspective.

1. Theoretical framework – ability of BS 25999-2 development

On the one hand, it is obvious that business continuity and BCMS are very important in an organization's functioning. On the other hand, there is a relatively small number of “BS 25999-2 certificates” all over the world. This impacted the searching of factors influencing such situ-
ations. Identifying the elements that affect decisions about implementation and the next functioning business continuity management systems can be helpful for other organizations in building effective BCMS. In the course of the literature review, the area of surveys was grouped into five areas.

1.1. Management systems

In the interests of organizing and branch identifying which systems are the most interested or fitting to business continuity management, the first attention was directed to normalized management systems. The most widespread in use is norm ISO 9001 [ISO 9001 2008], which includes requirements of quality management system (QMS). About 11% of over a million certificates all over the world are owned by construction companies [The ISO Survey 2011]. The construction companies own the biggest number of "ISO 14001 certificates" [The ISO Survey 2011]. This can be interpreted by the scale of influence of building activities on the environment. Surveys conducted between big construction companies indicates that 82% do not have any elements of a business continuity plan, and this lack of need results from a lack of crisis situations in the past [Low, Liu, and Sio 2010]. But the market's experience shows that the BCM system has prevention characteristics and prepares organizations to make the right decision and carefully consider actions during crisis situations in today's reality when crises appear unexpectedly with unknown consequences [Low, Liu, and Sio 2010]. The next normalized management system in analysis is according with ISO/IEC 27001 norm [ISO/IEC 27001 2005]. This is the first management system based on formalized risk assessment. Nearly 13 thousand organizations in the world have an "ISO/IEC 27001 certificate" [The ISO Survey 2011]. Information security management systems are a part of management systems, which involve every aspect of information security. Information security is the base of that system, and the branch with the highest number of certificates is "informatics technologies." The character of present economics processes shows that information and informatization are the key factors of competition. It implicates that this area of running a business can significantly influence business continuity. In the ISO/IEC 27001 norm, there is a requirement for business continuity in information scope. Naturally, one certified according to that norm can easier fulfil requirements from the BS 25999-2 norm than others, which confirms the analysis of BCMS in certified companies.
1.2. People

Human resources is elementary for running business in every form, branch and place. The role of employees in every effectiveness and efficiency of activities within organizations is big. Employees’ attitude to the BCMS system is very important and directly affects the success of the crisis situation. Very important is people’s behavior (panic or calm), which implicates the effectiveness of business continuity. People are important assets in doing activities in area of business continuity management. But, on the other hand, they can be a very important threat and source of potential crisis situation [Lawrence 2007], especially regarding communication between them [Nielson, Kleffner, and Lee 2005].

1.3. Infrastructure

Infrastructure constitutes the source of threats and implicate risk. On the other hand, it helps infrastructure in the prevention of risk and is necessary in crisis situation for reaction activities. This has been crucial in disaster management, and also business continuity, in both micro and macroeconomic areas, for years [Veen 2004]. The micro area covers single organizations. The macro sphere is connected to crisis with big influence on people, a geographic area or on a big scale, for example, a flood [Oh, Deshmukh, and Hastak 2010]. This area serves people; at the same time, infrastructure is very important in risk management and business continuity in big regional or state dimensions [Crowther 2008].

1.4. Company size

Until now, BCMS BS 25999-2 was the majority implemented and certified in big organizations. The number of people, infrastructure, equipment, suppliers, clients etc. cause many interactions which are potential sources of risks. However, a big organization is big because of good organization and also mostly a long time on the market with what is a good practice risk management sample. In SME organizations, there are a smaller amount of activities; however, in smaller organization, low risk can be very dangerous and can even bring about bankruptcy. So maybe smaller companies should implement BCMS more than bigger ones should because of the potential consequences of every risk. Nowadays, it seems that this area of management in SME organizations is realized in an intuitive way and with a lack of plans in case of emergency results from missing money [Runyan 2006]
or the owners’ interest in spending money because of a lack of danger in the past. The conclusion is that every company, independently of the size and kind of operations should undertake business continuity activities [Jin 2010].

1.5. Localization

An organization’s localization and territorial area of business functioning is the last point in the possible analysis of developing BCMS. Linking analysis of normalized management systems with territorial certificates saturation can indicate that China is a region where there is a large number of ISO 9001 and ISO 14001 certificates [The ISO Survey 2011]. Most certificates of ISO/IEC 27001 are in Japan. This method of analysis can show many countries with, for example, a large number of chemistry plants, coalmines, etc. whose impact on risk is high and it can indicate that area as good for BCMS implementing. In the literature review there are no intense publications showing business continuity research in territorial apprehension. So, the factor of taking action in business continuity area is not territorial, but rather the owner’s decision in connection with the number of employed people.

2. Research area

The theoretical analysis of business continuity area and certification of adequate system according to the BS 25999-2 norm shows that there is no straight relation between BCMS interest and elements of organization. On the one hand, business continuity is an important area of management in each company. On the other hand, there is a lack of a systematic method and there is no apparent relationship in the literature between the interest of implementation of BCMS dependent factors.

2.1. Goals of surveys

The main goal of the project was to identify BCMS elements: motives, barriers of implementing and effects of functioning this system in Polish organizations, and to assess future interest of that system implementing. Because of the small number of organizations with BS 25999-2 certificates, the main goal was divide into two particulars aims:

1. The first particular goal was connected with identification (recognition) of the above-mentioned components in empirical study among
companies with BS 25999-2 certificates in Poland. In the aim of gaining information about BCMS functioning in organizations in Poland, direct interviews in all five organizations with “BS 25999-2 certificates” were planned. These organizations are described as big institutions in the bank-finance sector. Unfortunately, it was impossible to carry out the interviews because these organizations refused to take part in the survey because of their information security policies. The planned goals were attained by general anonymous interviews in the British Certification Body (BSI) with BCMS auditors who audited all organizations in Poland with BCMS in accordance with the requirements shown in BS 25999-2 (qualitative survey).

2. The second particular goal covers also the same elements but in a potential way what deals with identification of BCMS implementing possibility in organizations with certified ISMS according to the requirements shown in ISO/IEC 27001. That goal was based on an experience of organizations with ISMS to assess potential prerequisites, obstacles and results of BCMS. This goal was realized on the basis of an empirical study among 158 organizations through an internet survey with questionnaires (quantitative survey).

2.2. Sample description

On the base of theoretical analysis in five areas constituted organizations with certified ISMS ISO/IEC 27001 object scope of study. These organizations were classified as objects of study because of:
1. There are normative requirements of ISMS and BCMS as a common element which enables understanding of requirements from norm BS 25999-2.
2. There is a business requirement in norm ISO/IEC 27001 that helps in the identification of potential BCMS elements.
3. Experience of normative ISMS functioning is useful from a practical point of view for normative BCMS.

The target organizations were selected from the general available database and the researcher’s own investigation on the Internet.

2.3. Hypotheses

Literature review lead to three hypotheses.

H1: The first hypothesis was formulated in the area of making decisions about implementation BCMS circumstances. Initial analysis indicated that
government units are more interested in building BCMS than private companies are, which probably results from the scale of economic activity and public utility of that services [Alpaslan, Green, and Mitroff 2009]. At the same time, an assumption emerged that awareness of business continuity management in a systematic way arises along with the period a business is run on the market.

On the basis of that foundation, the first hypothesis is worded as a “Longer period of running business on the market influences the larger interest of implementing Business continuity management system. That interest is also positively correlated with threats to business continuity, such as the number of external suppliers and subcontractors.” The number of suppliers was built into the hypothesis because the supply chain is the source of many risks [Richey 2009; Kern et al. 2012].

**H2**: The second hypothesis deals with the barriers of making decisions and implementing BCMS. The main problem of every normalized management system implementation is the necessity of fulfilling requirements of normative documents and also having enough time to do so. Probably, specific barriers to fulfilling the requirements of BS 25999-2 concern the relationship between the costs and benefits of the project. In this, strand organizations that had problems with continuity in the past are probably more interested in BCMS certification than others [McConnell and Drennan 2006]. At the same time, these organizations that had normative systems other than ISMS probably see only the barriers of the need to fulfil another requirement connected with new responsibilities. Analysis of the literature led to the stipulation of a second hypothesis: “The biggest barrier of implementing business continuity management is the necessity of fulfilling requirements, which is more visible in companies with other functioning normative management systems”.

**H3**: The third hypothesis is connected with the expected results of normalized BCMS functioning. There are two area of effects. The first is connected with the general aims of BCMS: risk minimization and fast reaction in a crisis situation. The second area concerns individual circumstances in an organization; among others, prestige in branch, capability of cooperation with clients (corporation or bureau). Analysis of functioning BCMS can indicate that the decision of implementing that system was initiated from the outside. In that line, it is probable that external effects are more observable than internal ones and are concentrated on the possibility of doing business with big organizations and institutions. Linking the above assumption with the literature’s motives formulated the last hypothesis: “The Biggest
potential benefits from BCMS are appreciation risks which affect business continuity (internal benefit) and possess certificates (external benefit), and the external benefits are stronger than internal ones when increasing the number of clients.”

2.4. Survey methods

The research procedure was divided into three stages. The first stage was the theoretical recognition of business continuity area in the literature. The second level was connected with an empirical study among companies with a “BS 25999-2 certificate” in Poland. The results of this empirical survey were utilized to detect motives, barriers of implementation and the effects of normalized business continuity management system in organizations in Poland. The third tier, an empirical study among companies with an “ISO/IEC 27001 certificate,” was realized through an internet survey with questionnaires (quantitative survey). Participants were then contacted by email with a short description of the research project and a link to a www page with a structured questionnaire (with a 1-5 scale of answers), which was subsequently distributed to 158 organizations, all with certified ISMS in Poland. The respondents were assured that all findings would only be reported in an aggregated form. These steps were considered as important to increasing survey response accuracy. Respondents who took part in the survey represented accurately at half private (16) and half governmental state institutions (16). Equally, six private companies represented small businesses and six medium enterprises. The data collection was completed at the end of August 2012. Representatives of 32 organizations filled out questionnaires, and the response rate was 20 percent. This is acceptable when compared to other surveys in the field of normalized management systems [Dilber et al. 2005]. Twelve surveyed organizations were only ISMS functioning. There was also QMS in eight organizations. In four organizations were ISMS, QMS and OHSAS functioning. There are four certified management systems (QMS, EMS, OHSAS, ISMS) in eight organizations.

3. Study findings

3.1. BCMS in Poland – present stage

In the business continuity management system, there is a fundamental requirement of the key products and services identification within the scope
of the BCMS. Polish organizations with a “BS 25999-2 certificate” have homogeneous products and services, e.g. inter-bank accounts, so the scope of the BCMS is synonymous to the scope of all economic activity. BCMS BS 25999-2 is a relatively new normalized management system, so four of five companies implemented BCMS single-handedly. Two systems were implemented after three-years recertification, two were during the first period of certification validity, and the last organization has a one-year certificate. The main motive of BCMS implementation was a preventive area to preclude threats and also to do due diligence connected with the size of the organizations and their big role in the finance sector. It also indicates internal motives, such as an innovative approach to business continuity on the market, which is connected with prestige. The main results of BCMS’s functioning is the minimization of risk in business and realizing contracts. It can indicate that the implementation of normalized BCMS is treated as a formal conformation of governance. It can compare with other pioneers of BCMS in the world. In England, two services companies (IT and logistic) implemented the “BS 25999-2 system.” The general motive was connected with the large size of those companies which implied many risks in business activity. Every company, both in England and Poland, had functioning ISMS before BCMS implementation. The aim of ISMS is the security of the most important resources, while BCMS shows that the organization is ready to revive processes after a crisis situation.

3.2. BCMS in Poland – information for future implementation

3.2.1. Potential motives of BCMS implementing

Representatives of organizations with ISMS ISO/IEC 27001 assess the importance of every potential motive of BCMS implementation, which were noted in the questionnaire. Statistical features are summarized in Table 1, in the same order as in the questionnaire.

Respondents indicated “Improve organization’s resistance to threats” as the most important potential motive of BCMS BS 25999-2 implementation. This was inscribed into the prevention line of BCMS functioning. The second important motive is the “Minimization of loss in case of emergency,” which affects the reaction side of the analyzed system. These survey results pointed to a good consideration of the BCMS idea. Of course, it can also indicate that it is normal because of the questions asked of organizations about ISMS. But from another side, it is very important because organizations with experience in the area of information continuity practically con-
firmed the theoretical idea, which is important for many companies that are considering implementation.

Table 1. Potential motives of BCMS implementing

<table>
<thead>
<tr>
<th>Motives</th>
<th>Mean (arithmetic importance)</th>
<th>Standard deviation</th>
<th>Variation index (%)</th>
<th>Precision index (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Business continuity assurance in crisis situation</td>
<td>4.25</td>
<td>1.32</td>
<td>31</td>
<td>5</td>
</tr>
<tr>
<td>2. Perception of the organization as responsible for running a business</td>
<td>3.75</td>
<td>1.50</td>
<td>40</td>
<td>7</td>
</tr>
<tr>
<td>3. Minimization of loss in case of emergency</td>
<td>4.50</td>
<td>0.72</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>4. Improve organization’s resistance to threats</td>
<td>4.75</td>
<td>0.44</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>5. Increase probability of gaining business goals</td>
<td>4.25</td>
<td>0.98</td>
<td>23</td>
<td>4</td>
</tr>
<tr>
<td>6. Formalization activities to minimize business risks</td>
<td>3.75</td>
<td>1.41</td>
<td>38</td>
<td>7</td>
</tr>
<tr>
<td>7. Effective resource allocation in risk management area</td>
<td>3.75</td>
<td>1.41</td>
<td>38</td>
<td>7</td>
</tr>
<tr>
<td>8. Appreciation of risk in organization</td>
<td>4.00</td>
<td>1.52</td>
<td>38</td>
<td>7</td>
</tr>
<tr>
<td>9. Reinforcement process of management and governance</td>
<td>4.00</td>
<td>1.52</td>
<td>38</td>
<td>7</td>
</tr>
<tr>
<td>10. Growth of organization’s value</td>
<td>3.00</td>
<td>1.44</td>
<td>48</td>
<td>8</td>
</tr>
<tr>
<td>11. Increase stakeholder’s trust</td>
<td>3.88</td>
<td>1.29</td>
<td>33</td>
<td>6</td>
</tr>
<tr>
<td>12. Increase competitiveness by BCMS certificate</td>
<td>2.75</td>
<td>1.50</td>
<td>55</td>
<td>10</td>
</tr>
<tr>
<td>13. Indirect client’s requirements (market demands)</td>
<td>3.13</td>
<td>1.48</td>
<td>47</td>
<td>8</td>
</tr>
<tr>
<td>14. Direct client’s requirements (contract demands)</td>
<td>3.00</td>
<td>1.34</td>
<td>45</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Own elaboration on research results.

3.2.2. Potential barriers of BCMS implementing

It can be presumed that the main problem with implementing BCMS is similar to other normalized management systems because of the normative requirements as the base of that system. It concerns the necessity of fulfilling normative requirements and the need of time to do many activities dur-
ing the BCMS implementing project. Statistical features are summarized in Table 2, in the same order as in the questionnaire.

Table 2. Potential barriers of BCMS BS 25999-2 implementing

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Variation index (%)</th>
<th>Precision index (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage of taking decision about implementing BCMS BS 25999-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Little popularized standard</td>
<td>2.25</td>
<td>1.22</td>
<td>54</td>
<td>10</td>
</tr>
<tr>
<td>2. Necessity of fulfilling another normalized requirement</td>
<td>2.63</td>
<td>1.76</td>
<td>67</td>
<td>12</td>
</tr>
<tr>
<td>Stage of taking decision about implementing BCMS BS 25999-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Lack of employee commitment</td>
<td>2.00</td>
<td>1.24</td>
<td>62</td>
<td>11</td>
</tr>
<tr>
<td>4. Concentration rather on formal side of system than on system’s aim</td>
<td>2.38</td>
<td>1.34</td>
<td>56</td>
<td>10</td>
</tr>
<tr>
<td>5. Aversion of workers</td>
<td>2.38</td>
<td>1.34</td>
<td>56</td>
<td>10</td>
</tr>
<tr>
<td>6. Lack of regularity in activities, recognizing BCMS as a time-bound</td>
<td>2.38</td>
<td>1.34</td>
<td>56</td>
<td>10</td>
</tr>
<tr>
<td>7. Lack of correlation between BCM system and organization’s strategy</td>
<td>2.38</td>
<td>1.34</td>
<td>56</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Own elaboration on research results.

The average mean of the most important obstacle is below neutral, closer to “rather no,” which indicates that organizations with ISMS do not see any barriers to BCMS implementation. Of course, for companies without any normalized management system, the necessity of fulfilling requirements would be connected with the cost and time for many activities. But the information from organizations with certified ISMS is optimistic and allows another organization to make the decision about BCMS implementation in light of future good effects of systems’ functionality.
3.2.3. Potential results of BCMS implementing

Every normalized management system is implemented in aim to have the expected goals realized. Statistical features in the area of potential BCMS effects, in the opinion of organizations with ISMS, are summarized in Table 3, in order from smallest to highest meaning.

Table 3. Potential effects of BCMS BS 25999-2 functioning

<table>
<thead>
<tr>
<th>Effects</th>
<th>Mean (arithmetic importance)</th>
<th>Standard deviation</th>
<th>Variation index (%)</th>
<th>Precision index (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Protection of supply chain – smaller number of problems with suppliers</td>
<td>2.25</td>
<td>1.11</td>
<td>49</td>
<td>9</td>
</tr>
<tr>
<td>2. Subsistence co-operation with present clients</td>
<td>2.38</td>
<td>1.13</td>
<td>48</td>
<td>8</td>
</tr>
<tr>
<td>3. Increase competitiveness by BCMS certificate</td>
<td>2.50</td>
<td>1.24</td>
<td>50</td>
<td>9</td>
</tr>
<tr>
<td>4. Increase number of orders from present clients</td>
<td>2.63</td>
<td>1.43</td>
<td>55</td>
<td>10</td>
</tr>
<tr>
<td>5. Increase number of new clients</td>
<td>2.63</td>
<td>1.43</td>
<td>55</td>
<td>10</td>
</tr>
<tr>
<td>6. Better co-operation with present clients</td>
<td>2.88</td>
<td>1.48</td>
<td>51</td>
<td>9</td>
</tr>
<tr>
<td>7. Perception of the organization as responsibly for running a business</td>
<td>3.63</td>
<td>1.52</td>
<td>42</td>
<td>7</td>
</tr>
<tr>
<td>8. Probability of crisis situation minimization</td>
<td>3.75</td>
<td>1.32</td>
<td>35</td>
<td>6</td>
</tr>
<tr>
<td>9. Minimization of crisis situation effects</td>
<td>3.75</td>
<td>1.32</td>
<td>35</td>
<td>6</td>
</tr>
<tr>
<td>10. Proactive identification of threat's influence on activities connected with key products and services</td>
<td>3.88</td>
<td>1.39</td>
<td>36</td>
<td>6</td>
</tr>
<tr>
<td>11. Increase stakeholder's trust</td>
<td>4.00</td>
<td>1.02</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>12. Growth of organization's value</td>
<td>4.00</td>
<td>0.88</td>
<td>22</td>
<td>4</td>
</tr>
<tr>
<td>13. Formalization of activities to minimize business risks</td>
<td>4.00</td>
<td>1.14</td>
<td>28</td>
<td>5</td>
</tr>
<tr>
<td>14. Increase probability of gaining business goals</td>
<td>4.00</td>
<td>0.88</td>
<td>22</td>
<td>4</td>
</tr>
<tr>
<td>15. Reinforcement process of management and governance</td>
<td>4.13</td>
<td>0.94</td>
<td>23</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 3 – cont.

<table>
<thead>
<tr>
<th>Effects</th>
<th>Mean (arithmetic importance)</th>
<th>Standard deviation</th>
<th>Variation index (%)</th>
<th>Precision index (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Effective resources allocation in risk management area</td>
<td>4.13</td>
<td>1.18</td>
<td>29</td>
<td>5</td>
</tr>
<tr>
<td>17. Minimization of loss in case of emergency</td>
<td>4.13</td>
<td>1.07</td>
<td>26</td>
<td>5</td>
</tr>
<tr>
<td>18. Appreciation of risk in organization</td>
<td>4.25</td>
<td>1.11</td>
<td>26</td>
<td>5</td>
</tr>
<tr>
<td>19. Improve organization's resistance to threats</td>
<td>4.50</td>
<td>0.88</td>
<td>20</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Own elaboration on research results.

Issues of risk awareness, and, connected with this, improving the organization’s resistance to threats are the most important potential results of BCMS in respondents’ opinions from organizations with certified ISMS.

4. Hypotheses verification and comment

Verification of all three hypotheses was done on the basis of empirical data gained through empirical research among companies with ISMS ISO/IEC 27001.

4.1. First hypothesis

Only four organizations (from non-private sector) indicated that they were interested in BS 25999-2 certification. Willingness to implement BCMS increases along with a period of functioning on the market, which is correlated with business experience, but data from research does not confirm such a relationship. Additionally, there is no statistical relationship between interest or no interest and other factors, such as the number of clients or suppliers. It caused a negative verification of the first hypothesis. Data from the survey showed that taking actions in the area of business continuity depends on individual factors in every organization. Rules and normative requirements in BCMS are general, but their use is specific to each organization and branch, for example, electricity markets [Basterfield, Bundt, and Nordt 2010], the textile industry [Lai and Lau 2012], and the banking sector [Randeree, Mahal, and Narwani 2012].
4.2. Second hypothesis

The necessity of fulfilling another normalized requirement is the most indicated barrier of BCMS implementation, but generally no obstacle is important in the respondents’ opinion. What is, in the authors’ opinion, interesting, is that the importance of this barrier increases in line number with the normalized management system. Organizations with QMS, EMS, OHSAS and ISMS treat this obstacle harder than others do. Experience with four normalized system affects such results of the survey. Organizations were aware that they have to fulfill requirements and that it requires a lot of time and effort. Such data confirms the relationship captured in the second hypothesis, which means positive verification. It can indicate that the biggest barrier of implementing business continuity management is the necessity of fulfilling requirements, which was noticed to be the hardest, along with time of functioning another normative management system. But what is interesting is that comprehensive analysis showed that organizations with more than one normalized management system are more interested in implementing BCMS than others are. Organizations with four normalized management systems are the most interested in BS 25999-2. It seems that these survey results are opposite. On the one hand, organizations with several certificates assess barriers more strictly, but on the other hand, they are more interested in BCMS implementation. It can be cleared up through the prism of these organizations’ experience. The first idea concerns every normalized management system – systematic activities to gain business goals with preventative actions. That area assesses an organization’s suitability for BCMS in crisis prevention and prepare procedures on emergency. The second idea is connected with the administrative sphere of systems like control of documents and records, documentation of internal audits, prevention, and corrections actions. This activity and experience with four systems influences barrier assessment by respondents. In general, the relationship between two areas of barriers – idea and administrative – depends on the organizations’ experience, especially in the number of crises and potential crises.

4.3. Third hypothesis

Existing co-operation with present clients and gaining new clients are not potential results of BCMS in the respondents’ view. It is probably connected with ISMS functioning in the surveyed organizations. Respondents assessed that ISMS is an adequate and sufficient system in their business activity and
that they do not connect possessing of a new BCMS system with obtaining new clients. What is interesting is the relation between the relative high value of “Increase probability of gaining business goals” and low worth of “Minimization of loss in case of emergency.” Such results showed an active approach of respondents to BCMS, which is the opposite to a passive attitude. In the second approach, BCMS certificate is treated as a marketing tool that confirms security. Of course, no certificate is a guarantee of success, because nearly everything depends on people’s approach and realizing day-by-day operations according to requirements. On that level, the potential results indicated by respondents are very positive, especially because organizations with ISMS had long term experience with business continuity in the information area. BCMS is treated as a tool of crises prevention and secondly as a set of procedures, equipment and resources needed in case of an emergency. Such an approach confirms the idea of BCMS – “Improve organization’s resistance to threats” with “Appreciation of risk in organization.” Such survey results are regardless of the form of ownership and the number of employees, clients or suppliers. Data gained in the survey allows a positive verification of the third hypothesis.

Conclusions

This paper explored the diversity of matters in the business continuity management area. Both prevention and reaction areas are important in BCMS. In the prevention area, knowledge about risks and activities taken to avoid negative situations is important. In the reaction area, it is important to take actions according to previously-prepared procedures that help in activities without panic. Also important is the fact that activities taken in the first area automatically include the minimization of negative effects of various situations [Hemond and Robert 2012]. Results from the survey show that organizations with ISMS assess the usefulness of BCMS, which is important sign for organizations without any normalized management system. It shows the importance of business continuity activities, which was proved by respondents from organizations with certified ISMS, and with long time experience on the market. Seeing benefits from BCMS allows one to make a decision about implementing this system with low risk from the project’s and system’s functioning. Business continuity management is not only for big companies; it is an area of interest in every organization, like quality of products and services. It was noticed by ISO, which publicized ISO 9004
with guidelines about managing the sustained success of an organization on the base of QMS. But choosing normalized solution in the direction of business continuity depends on many factors individual in every organization, but it is worth to take actions in business continuity area from long time point of view.

References


