

APPROACH TO DEVELOPMENT OF AN INTEGRATED PLAN TO ENSURE BUSINESS CONTINUITY IN THE POST-PANDEMIC PERIOD, BASED ON INTERNATIONAL MANAGEMENT SYSTEMS STANDARDS**Gabriela Elena BIȚAN***The Bucharest University of Economic Studies, 071131, Romania**gabriela_bitan@yahoo.com***Stelian Mircea OLARU***The Bucharest University of Economic Studies, 071131, Romania**olaru_stelian@yahoo.com***Youssef HASSANI***The Bucharest University of Economic Studies, 071131, Romania**hassani.youssri@gmail.com***Iulian Cristian COSTACHE***The Bucharest University of Economic Studies, 071131, Romania**costache.cristi22@gmail.com***Abstract**

The pandemic of COVID-19 has caused an unprecedented disruption to the global economy and world trade, with production and consumption falling dramatically in many economic. Organizations around the world have responded in many ways, from implementing working from home and restricting non-essential employee travel to canceling events. Under the new conditions, organizations must be prudent, analyze and review their short-term action plan to ensure the sustainability of the organization. Most large organizations have developed a business continuity plan. In contrast, small and medium-sized organizations have relatively limited resources to assess changes in the external environment and to develop and adopt such plans. In the context of these evolutions, the implementation of management system defined by international standards has become essential to ensure that products and services meet the imposed requirements. The main objective of the paper is to develop the approach for an integrated business continuity plan to facilitate the continuation and resumption of activities in safe conditions, both for people and for the environment, by integrating international management system. This approach can be applied by any organization, regardless of size or field of activity, but the priorities may differ, depending on the field in which the organization operates.

Key words: *COVID-19 pandemic; health and safety; integrated business continuity plan; ISO standards; management systems standards.*

JEL Classification: *D81, L25, M16*

I. INTRODUCTION

Pandemics are unpredictable but recurring events that can significantly affect communities and economies around the world (WHO, 2020). World Health Organization (WHO) considers that pandemics are caused by new types of viruses and pathogens. Approximately 400 new infectious diseases have been identified since 1940, and new pathogens are appearing at a faster pace. Each outbreak brings something new, provides opportunities to benefit from the experience of past epidemics and pandemics, and offers new lessons that will shape the framework for managing emerging infectious diseases (Stein, 2020, Benvenuto et al., 2020).

In the first phase of the pandemic reaching a country, when drastic measures are imposed or recommended by authorities to protect public health, the business environment is severely affected. Possible effects of the pandemic on businesses include: reduced labor supply, workforce unavailability, reduced availability of contractors or temporary workers, reduced or canceled customer orders, supply chain disruptions of raw materials or finished products (regardless of transportation system), changing demand patterns (eg. increased use of the internet, drastic decline of business and leisure travel, restrictions on public gatherings, sporting competitions, cultural and educational activities, religious gatherings, etc.), travel restrictions (regional, national or international), reduced availability of non-urgent health care or home care services and even services interruptions (telecommunications, financial-banking or utility services), in more severe situations (CCOHS, 2020).

Worldwide, many organizations have reduced their activity while others have closed or suspended their activities indefinitely due to this pandemic. Most large organizations have developed a business continuity plan, which usually specifies actions necessary to continue operations in the event of abnormal situations, which may

affect the organization's ability to run its business in normal parameters (Deloitte, 2020). However, small and medium-sized organizations have relatively limited resources to timely assess the changes impacting the economic sector, in terms of business operations and profitability, and to adopt such plans (Fogoroş et al., 2020).

In the context of these evolutions, the implementation of management system models related to quality, environment, security, defined by international standards, has become essential to ensure that products and services meet the requirements imposed by authorities or expected by customers (Maier et al., 2019, Kiehne et al., 2019, Maier et al., 2014).

The main objective of the paper is to outline the approach to developing an integrated business continuity management plan, at organizational level, to facilitate the continuation and resumption of activities in safe conditions, both for people and the environment, by integrating management system models defined by international standards. This approach can be applied in any organization, regardless of size or field of activity, but the priorities may be different, depending on the field in which the organization operates.

II. LITERATURE REVIEW

Following the analysis of World Health Organization reports, the Coronavirus pandemic is recognized as a Black Swan event, according to the figures and facts considered in these reports (Antipova, 2020). This pandemic caused drastic shocks to worldwide supply and demand, which inevitably disrupted trade (Arthur, C., 2020). Such events represent large-scale shocks, which can severely affect economic activity, social cohesion and even political stability.

The European Central Bank (ECB) by Governing Council announced in March 2020 a new support program in the pandemic context with a value of € 870 billion by the end of the year. The program is temporary and is designed to address the unprecedented situation facing the monetary union. The ECB's objective through this program is to provide assistance to banks to stimulate lending to businesses and households and to support production and employment (KPMG, 2020).

The global humanitarian challenge of pandemic has triggered an unprecedented response from governments around the world, while addressing the management of the pandemic from both public health and economic perspectives. Economic responses have varying degrees, trying to cope with the immediate consequences of public health measures, in an attempt to support recovery and a quick come-back once the pandemic is under control (DLA Piper, 2020). According to Eight Advisory, across Europe, governments are implementing a wide set of measures to slow the spread of the pandemic, from quarantine, cancellation of events, store closures up to full country lock-down. Three actions are presented as a priority for companies according to Eight Advisory in this challenging context: securing liquidity, establishing a crisis management cell, maintaining and stabilizing operations (Eight Advisory, 2020).

Under these conditions, organizations must be prudent, analyze and review their short-term action plan to ensure the sustainability of the organization (Sibik, 2020). The concept of sustainability has become essential to help companies achieve their performance goals (Hassani et al., 2020).

The governments of several countries have developed various plans to support business continuity. For example, the UK Government, in its "Pandemic influenza checklist for business" guide, recommends that all organizations take strong and flexible business continuity management actions that will help minimize the impact of any disruption (HM Government, 2020).

The Canadian Center for Occupational Health and Safety from the Government of Canada, has documented a business continuity plan with questions and answers covering a wide range of topics about occupational safety and health topics, from hazards and diseases to ergonomics at workplace (CCOHS, 2020).

The Australian government of Queensland is proposing a business continuity plan that recommends to organizations to identify basic services and those needed to maintain the supply chain, to identify staffing arrangements, such as teleworking, succession planning and cross-skilling, to protect employee health, to develop communication strategies with employees, customers and suppliers, to consider financial implications such as on cash flow, increased costs and insurance needs, to identify contingency plans for unexpected situations and to schedule how the plan will be tested and updated (Business Queensland, 2020).

The United Nation Industrial Development Organization has developed "Guidance for micro, small, and medium enterprises business recovery in the wake of the Covid-19 pandemic", in order to be used by organizations of all kinds to systematically identify potential problems and to resolve them as soon as possible, overcoming the difficulties caused by the pandemic. This guideline comply the specific steps for business assessments used in disasters, as applied in many countries (Weinmann, C.D., 2020).

Manchester City Council and Manchester Business Continuity Forum have proposed a scenario to organizations to minimize any risk of service disruption, by building the resilience of internal structures and

processes, to ensure that essential services can be maintained during interruptions of varying severity, to assist staff in the event of an incident and to ensure that staff are able to cope with disruption; if an outage occurs, the priority will be to recover critical services within the set timeframes (Harrisona, 2020).

In early 2020, despite being the focal point of the global pandemic, The People's Republic of China avoided a lot of cases and deaths, but the effects on the national economy were severe. Combining the administrative system and the nation resources with the compliance of the Chinese people to acknowledge to strict procedures of public health, China's accomplishment can be used for local action in a pandemic period (Silvestri, 2020).

As a global effort, the International Organization for Standardization (ISO) has made available to stakeholders, free of charge, a number of medical and business standards in order to support organizations in combating the pandemic crisis (ISO, 2020).

Following such standards can help mitigate the negative effects of the global pandemic in several ways.

Standards for medical equipment and devices ensure that the equipment meets all regulatory requirements, is reliable, provides the necessary protection, increases accessibility to essential medical products and in consequence, can improve the capability of the authorities to react fast in case of public health crisis.

International standards for business continuity management system support the preparation of organizations for better management of crisis situations or to cope with the negative effects of this crisis.

The purpose of occupational health and safety management system standard is to reduce risks, to improve employee safety and to create better conditions in the workplace, supporting organizations in preventing the spread of the new virus.

The series of international standards regarding the environmental management system is also important in waste management, caused by the high consumption of disposable protective equipment. For instance, medical facilities need to follow the approaches specific to biomedical waste generated in health facilities, quarantine facilities, to block the spread of the infection.

The international standard of risk management system serves as a guide for establishing and dealing with the risks facing an organization.

The standard of quality management system prepares the organization for better crisis management and the standard of food safety and hygiene is important in preventing contagion situations (UNIDO, 2020).

The standard of information security management system protects the organization's information, especially during the period when many employees work from home, on public or home networks that are not secure.

The innovation management system standard can have both financial and non-financial benefits for the organization (Boteanu et al., 2020).

III. RESEARCH OBJECTIVES AND METHODOLOGY

The main objective of the paper is to develop an approach for an integrated business continuity management plan in post-pandemic period, to facilitate the continuation and resumption of activities in safe conditions, both for stakeholders and the environment, through highlighting the management system models defined by international standards.

This approach can be applied by any organization, regardless of size or field of activity, but the priorities may differ, depending on the field in which the organization operates.

To achieve this goal, an empirical research was conducted based on the literature review and the experience of authors as auditor and consultant in implementing integrated quality - environment - security - innovation management systems.

The starting point of this research was the analysis of management system models defined by international standards commonly integrated by organizations (figure no. 1).

The proposed integrated plan model for ensuring the continuity of an organization's activities in the postpandemic environment is based on "High-Level Structure" (HLS), promoted by ISO. According to HLS, the management systems standards are structured in the same way, regardless of the scope. Having the same structure, users who are familiar with a management system standard will immediately feel at ease, even when using another management system standard for the first time.

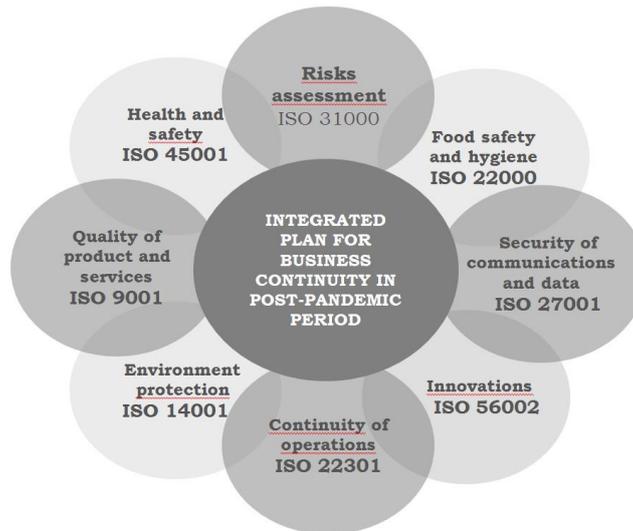


Figure no. 1 - Management systems international standards used as a support for the development of the integrated business continuity plan in the post-pandemic period

Source: developed by authors

The management system models proposed by international standards are the best known and used globally (Olaru et al., 2013).

IV. THE RESEARCH RESULTS REGARDING THE REQUIREMENTS FOR ELABORATING AND IMPLEMENTING AN INTEGRATED PLAN FOR BUSINESS CONTINUITY IN A POST-PANDEMIC ENVIRONMENT

In order to elaborate the integrated plan to ensure business continuity of organization's activities in the post-pandemic environment, we analyzed the following international standards, having the High Level Structure:

- ISO 9001:2015 for Quality management systems
- ISO 14001:2015 for Environmental management systems
- ISO 22301:2019 for Security and resilience and Business continuity management systems
- ISO/IEC 27001:2013 for Information technology, Security techniques and Information security management systems
- ISO 45001:2018 for Occupational health and safety management systems
- ISO 56002:2019 for Innovation management and Innovation management system.

The standard ISO 31000:2018 for Risk management, although it does not have the same structure, was used to apply the principles defined therein, which should allow an organization to manage the effects of uncertainty on its objectives and thus improve performance.

According to HLS, the requirements of the standards are grouped according to the Plan-Do-Check-Act (PDCA) model. This model allows an organization to ensure that processes are properly managed, adequate resources have been allocated, and opportunities for improvement are determined and acted upon (ISO, 2015). In the "Plan" stage, the following requirements for the organization are included: requirements about the internal and external context, requirements about leadership and requirements about planning, and in the "Do" stage requirements regarding resources and support activities and requirements regarding operational processes. In the "Check" stage are included requirements regarding evaluation of performance and in the "Act" stage requirements regarding continuous improvement.

For example, the medical staff used in Wuhan Union Hospital, the PDCA cycle in the treatment of COVID-19 patients in severe condition (Li, et al., 2020). Thus, the medical staff established a new emergency management strategy by applying the PDCA cycle to fight the epidemic in Hubei Province.

The main objective of the integrated plan approach proposed by the authors is to safeguard and restore the risky functions of the organization, in order to continue or resume activities in an orderly and gradual manner. This approach can be applied in any organization, regardless of size or field of activity, but the priorities are different depending on the field in which the organization operates.

Requirements regarding the organizational context

In general, in the process of developing a business continuity management plan, must be identified the critical elements and how they affect the business. In order to determine and accept the organizational context (internal and external) and the domain in which it operates, the organization shells identify the relevant factors (external and internal) for the established mission and strategic directions, as well as to assess the ability to achieve the intended results.

To determine the external factors the PESTEL analysis (Political, Economic, Social, Technological, Environmental, Legal Factors) can be used, while to determine the internal factors a SWOT analysis would be relevant (Strengths, Weaknesses, Opportunities, Threats), taking into account those elements (activities, people or other businesses) on which the organization must rely.

After determining the internal and external situation of the organization, the next step is to identify the critical processes, operations, functions, job positions that could affect the business. An acceptable completion time must be set for each identified item.

The identification of relevant stakeholders and their requirements must be constantly carried out and the list must be constantly updated. Stakeholders of an organization could be: users, customers, general public, local communities, special interest groups, partners, suppliers, consultants, unions, competitors, owners/shareholders, funding organizations, regulators, public authorities, standardization bodies, trade associations, employees at all levels and other people working for the organization. The records that the organization should maintain are: List of external and internal factors, List of critical processes, operations and functions and List of stakeholders.

Requirements regarding leadership

The top management of the organization should demonstrate leadership skills, by establishing a policy that provides an adequate framework for achieving the objectives of the post-pandemic phase by: providing the necessary resources to implement, maintain and improve the business continuity plan; protecting employees and other interested parties and encouraging employees to innovate, follow best practice and facilitate lifelong learning; assigning and communicating responsibilities and authority for relevant roles within the organization. Policy records must be maintained in the organization.

Depending on the volume and complexity of activities, the top management of the organization must identify a representative and a coordinator (or a team) for occupational health and safety management, with defined roles and responsibilities for preparing and planning continuity and response in the post-pandemic phase.

Requirements regarding planning

The top management of the organization should determine the opportunities and risks to ensure that the organization objectives will be achieved and the adverse effects will be prevented or reduced, considering the occupational health and safety hazards and applicable legal requirements.

To identify risks, the organization should consider: threats and opportunities, tangible and intangible sources of risk, vulnerabilities and capabilities, causes and events, changes in the context (external and internal) of the organization, consequences and impact of these changes on objectives, limitations on knowledge and information and factors related to deadlines.

The identified risks should be analyzed taking into account the probability of occurrence of the appearance and their impact, the degree and the nature of the impact, the effectiveness of the existing controls and the time factors. Risk analysis can be influenced by differences of opinion and perceptions of risk. Also, after the risk analysis, these should be assessed by comparing the results of the risk analysis with the established risk criteria, to determine whether further action is needed. For each risk, the following are decided: whether additional analysis is needed to better understand the risk in question; whether risk management options are considered; whether the objectives are reconsidered.

Next, the plan of measures for treating the risks is established, which may involve: avoiding the risk by deciding not to start or continue the activity that generates the risk, maintaining and assuming the risk in order to pursue an opportunity, implementing measures to reduce or eliminate the source of the risk thus bringing it to a tolerable level. The action plan for addressing risks and opportunities should include the responsibilities, deadlines and assigned resources. The organization should keep evidence of the identification and the analysis of risks and should evaluate the effectiveness of defined actions once they are implemented, in terms of their impact on risk likelihood and risk impact across the organization

In the post-pandemic period, the organization should identify and maintain records on environmental aspects (hazardous waste, biomedical waste, disposable material waste, use of substances for disinfection, etc.)

and on hazards about occupational health and safety to prevent infection, considering: work organization, work schedule, emergency situations.

Also in planning, the organization should establish and maintain records of objectives and priorities for the post-pandemic period. Objectives and priorities should refer to: employees (identification and training of backup personnel for critical positions), available equipment (which should meet identified needs), availability of assets (such as ensuring to staff working from home access to the organization's internal systems), business commitments (such as implications for late deliveries or poor performance), ensuring continuity of payment of salaries, suppliers and other liabilities. Objective planning should contain information about the needed actions, resources assigned, responsible, and deadline, to achieve the objectives and how the results will be evaluated.

Finally, the organization must integrate in all pandemic-related planning the recommendations and obligations issued by local/national authorities in order to ensure legal compliance across all operations. Considering the fast changing evolution of the pandemic world-wide and the varying degrees of governmental response around the world, the organization should also allocate resources for the periodical monitoring of trends in other relevant countries.

Requirements regarding resources and support activities

In the period after pandemic, the organization should allocate financial resources not only for the day-today running the business activities, but also to protect employees and customers, providing sufficient and accessible means to prevent and reduce the spread of infection (such as providing hand washing facilities, disinfection products or masks). It should also consider additional measures to reduce the risk of infection (such as frequent cleaning of premises), improved communication infrastructure and information technology to support employees working from home (teleconferencing, remote access for customers and other interested parties).

Regarding human resources, the organization should determine the skills and responsibilities necessary to ensure the continuity of activities. The organization should provide the necessary infrastructure to carry out activities in a safe working environment for the health of employees, customers, contractors and all other stakeholders that require entry in company facilities.

Innovation plays an important role in establishing measures to ensure a safe working environment. Some of these actions, but not limited to them, refer to: providing backup for equipment, installations; providing protective equipment for employees; for employees working from home, providing data security tools, access to the internal network and certain applications for online activities.

Communication and staff awareness are two other basic elements of the proposed approach. Whether we refer to communication within or outside the organization, the organization should determine who should communicate, when, with whom, and what to communicate. The top management of the organization should pay attention to employee awareness so that they can respond appropriately in crisis situations.

Requirements regarding operational processes

The organization should plan, implement and control the needed processes to complete the requirements, as established in the planning stage.

After implementing the actions set out in the planning phase, the organization should analyze the impact of the pandemic on the business to identify priority activities and determine what resources are needed to support these activities. The organization should also ensure that outsourced processes and the supply chain are kept under control.

Based on the conclusion obtained from the risk assessment and from the impact of the pandemic on the business, the organization should identify and select strategies to ensure business continuity. These strategies should provide alternative solutions to be implemented as soon as they are needed. The organization should implement and maintain a monitoring program to validate over time the effectiveness of business continuity strategies. It should also maintain adequate information as evidence of the results obtained in implementing business continuity strategies.

Requirements regarding evaluation of performance

As a key management tool in assessing the conformity of activities, the organization should conduct internal audits, based on prior planning.

Also, in the management review, the organization should consider: the results of internal audits, the necessary relevant changes to the proposed plan, the conclusions of the impact of the pandemic review on the business, the feedback of interested parties for the implementation of the plan, resources for

improving the plan, the conclusions of the opportunities and the risk assessment for continuous improvement. At the end of the management review, conclusions should be drawn regarding opportunities, any need for changing the plan for improving the efficiency and effectiveness of the processes of the organization and decisions for continuous improvement. The organization should maintain evidence of internal audit and management review. Information should be maintained as evidence of internal audit and management review.

Requirements regarding continuous improvement

The organization should bear in mind the focus on continuously improving the effectiveness of the business continuity plan. When an incident occurs, the organization should react in a timely manner, take measures to control and mitigate it and deal with the consequences. All incidents must be analyzed, establishing the cause of occurrence and corrective actions to eliminate the cause. In the context of the implementing the business continuity plan the continuous concern about sustainability of the performance is also important.

V. CONCLUSION

In the new context, to support organizations to fight against the problems caused by the pandemic, the implementation of management system models defined by international standards has become important for developing the capacity of organizations to control the crisis situation and ensure business continuity.

As different regions / countries enter the recovery phase, there are important differences between their respective status and management of the pandemic: while some allocate significant medical resources and set-up the possibility of large-scale testing of the population, others enter a plateau phase on the number of cases, with continuous uncertainty about transmission. Due to this uncertainty, organizations are still in a stage of assessing when will the right time be to return to normal activities (McKinsey, 2020).

The research undertaken by the authors highlighted the approach for developing an integrated plan to ensure business continuity, in the post-pandemic period, based on international standards related to management systems. This approach can be applied by any organization, regardless of size or field of activity, but the priorities may be different, depending on the field in which the organization operates.

This research is in incipient phase, highlighting especially the current approaches in the specialty literature and authors' experience on management system models defined by international standards. The obtained results can provide a basis for developing an integrated business continuity plan, in the post-pandemic period.

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