

Business Continuity Management in Micro Enterprises: Perception, Strategies, and Use of ICT

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ABSTRACT

Small and medium-sized enterprises (SMEs) represent 99% of enterprises in Germany and more than 95% in the European Union. Given the recent increase of natural disasters and man-made crises and emergencies, it seems an important economic goal to ascertain that SMEs are capable of maintaining their work, revenue and profit at an acceptable level. According to ISO 22301, business continuity management (BCM) is a holistic management process which identifies potential threats and their impact to an organization and serves as a framework to increase organizational resilience and response capabilities. Prior research identified that BCM is under-represented in SMEs and that their security level is partially in an uneconomical range. This article presents the analysis of interviews with 19 independent micro enterprises highlighting findings on their low crisis awareness, varying technical dependency, existing action strategies and communication strategies and proposing a categorization of micro enterprises as preventive technicians, data-intensive chains or pragmatic jumpers.

KEYWORDS

Action and Communication Strategies, Business Continuity Management, Crisis Awareness, Micro Enterprises, Technical Dependency

1. INTRODUCTION

The safety of small and medium-sized enterprises (SMEs) is crucial for the European economy (Storey, 2016). Current reports indicate an increasing number of natural disasters, i.e. earthquakes, floods and hurricanes, as well as man-made crises and emergencies, i.e. accidents, economic sanctions, terror attacks and uprisings (Munich Re, 2016; Statista, 2017). Thus, ensuring the continuity and economic performance of SMEs during such events is a necessary issue for both practice and research. Business continuity management (BCM) is becoming increasingly important since precaution planning and response capabilities are just as vital as planning the growth and success of enterprises (Herbane, 2010). Nonetheless, research contributions indicate that SMEs are not always as protected as necessary (Reuter, 2015). According to a study by Forrester Research, approximately 45% of US and European SMEs have no business continuity concept; as a major reason for the issues of SMEs to catch up in the area of BCM, many experts argue that the corresponding standards are too complex and that their implementation is not affordable and too costly for SMEs (Thiel & Thiel, 2010). Another study of the European Network and Information Security Agency suggests that SMEs often have a poor understanding of protecting their information and a lack of resources and expertise (ENISA, 2009). As a result, SMEs cannot meet security and privacy requirements. Especially micro enterprises, defined as enterprises with less than ten employees (European Commission, 2005), therefore a subgroup of SMEs, face particular challenges in terms of business continuity and efficiency of security concepts, such as time and cost efficiency, availability of personnel and material resources, as well as adequacy and profitability of specific measures. Another problem is that only a few risk management frameworks are scalable to micro enterprises (Galan Manson et al., 2015). In addition, due to the relatively low likelihood of, for example, power outages in Western Europe, general preparation for such disasters is not optimal (Birkmann et al., 2010).

The aim of the study is to gain insight into the micro enterprises' perception, extent of impairment and measures taken during the 2013 Power Failure in Siegen (Germany) and similar incidents. Although previous research suggests that few SMEs have business continuity plans and security measures in general, little research focuses on the specific issues of micro enterprises. Thus, it seems to be important to investigate the perception and implementation of BCM measures by micro enterprises in the event of a disaster. The core study analyzes BCM regarding micro enterprises. However, since they are a subset of SMEs, the consideration of SME literature is required. This article seeks to provide exploratory and practical insights on the research questions "How do micro enterprises perceive business continuity management?" (RQ1) and "What are micro enterprises' strategies for preventing or overcoming business disruptions?" (RQ2).

The article follows with foundations and related work on SMEs, BCM and issues of SMEs implementing BCM measures (Section 2). Furthermore, a research gap is presented. Thereafter, the methodology of the empirical investigation and its exact procedure are discussed (Section 3) and the results of the case-by-case analysis, in-depth analysis as well as group comparisons and labeling are presented (Section 4). The article concludes with a summary of results, its contribution and contextualization with existing research, the study's limitations and an outlook for future research (Section 5). The results highlight the topics of crisis awareness, technical dependency, action plans and communication plans in micro enterprises, distinguishing between the types of preventive technicians, data-intensive chains and pragmatic jumpers.

2. RELATED WORK

This section provides a literature review on the characteristics and definitions of SMEs and BCM. Furthermore, the distribution of BCM in SMEs, with a special focus on micro enterprises, are discussed to motivate the research gap addressed in this article.

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