

Critical Success Factors on the BCM Implementation in SMEs

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Abstract – Every company is susceptible to disasters, such as earthquakes, hurricanes, floods, system malfunctions and computer viruses which occur regularly throughout the world and most of the time, without we even know when it is going to happen. In relation, tens of thousands of organization of all sizes were affected by these disasters, unless organisations prepared in advance. Business Continuity Management (BCM) is the management processes that ensure the resilience of an organization in the face of a range of business disruptions in which evolved from Disaster Recovery Planning (DRP.) This paper exhibits the outcomes of a study in identifying and analysing the relationship of critical success factor (CSFs) in the implementation of BCM in small and medium sized enterprises (SMEs). Thus, by using key terms distinguished in a preliminary literature review, a summation of 302 articles were reviewed while in a sequential series of literature review, 101 articles were selected for the final compilation. In this paper, it is found that the study on the CSFs for BCM implementation in SMEs has not been done yet, together with the study on CSFs for BCM implementation. **Copyright © 2016 Penerbit Akademia Baru - All rights reserved.**

Keywords: critical success factors, business continuity management, SMEs

1.0 INTRODUCTION

Business continuity becomes a high interest topic to the organization nowadays due to the competitive pressure as in order to recover the business functions after disasters; it entails numerous corporate objectives as market share, cash flow, preservation of customer base, and corporate image that need to be constantly met. Furthermore, most SMEs today has adopted e-business in their business activities as the tremendous growth of the Internet has provided a rare opportunities and benefits such as e-business, e-commerce, B2B, B2C and others towards them [38]. Hence, Business Continuity emerged in response to the increased corporate realization that any disruption in the continuity of the business for an extended period of time will seriously affected the overall practicality of the company [14]. In which explained the purpose of having BCM in the organisations as to identify and protect the critical business processes and requirement required to maintain an acceptable level of business as well as ensuring the survivability of the organization in the times of business disruption caused by disasters or extreme events [28].

Extreme events can be briefly defined as an event that would disrupt the entire organisation with the possibility of causing the worst downfall and disruptions at its best. Disaster events are that of natural disasters such as hurricanes, tornadoes, earthquake, floods and etc. Extreme



events such as global warming, solid waste, wastewater generation and terrestrial eco-toxicity are said to be the biggest problems faced by the community now days as these impacts has likely increasing the losses of property and costly disruptions to society including human health, plants, land, air, infrastructure, and moreover, energy, food, and water supplies [48]. Both events can be concluded as major threats towards business nowadays especially for SMEs.

Accordingly, as organization in Malaysia too, are susceptible to disruptive events which can disrupt their normal operation, in which, can result in losses of productivity, a loss of revenue, and potentially a loss of professional reputation has made SIRIM with the cooperation of BNM and DRI to actively spearheaded BCM initiatives locally. The first initiative was by establishing the first Malaysia Standard on BCM Framework in the year 2007 which was spearheaded by SIRIM and its Technical Committee. On the consequent year, the second initiative was to establish DRI Institute of Continuity Management in Malaysia on the year 2008, as its objectives is to increase the number of certified BCM professional in the country, and at the same time promoting BCM educational and certification programs [25]. The readiness of an organization in reacting to such disruption is very much dependent on how actively involved its management is in embracing the BCM [28].

However, despite the efforts being done, its implementation still largely been attributed to the large organisations only. As highlighted by [27], generally, the sectors that equipped with comprehensive BCM program are from the larger organisations that comprise from financial services, telecommunication, multinational oil and gas corporations and the airline and aerodrome operators sectors. In fact, in a survey made by ADRC and TIER shows that 50% of SMEs representatives in Malaysia do not know about BCM [3], let alone to implement it. As mentioned earlier, it can be deduced that the main reason for the failure in understands and implement BCM comprehensively is much contributed by the late awareness and exposure on the importance of BCM among organisations in Malaysia, particularly in SMEs industry. Moreover, BCM is also lacking in terms of academic perspectives as to date there is only three literature reviews that study on the BCM implementation in Malaysia organisation, generally.

The first literature review focused on exploring and identifying the success factors on the implementation of BCM in Malaysia organisation. The respondents of the study are consisting of staff and personnel in licensed public key infrastructure authority. It highlights four success factors namely; (i) management commitment, (ii) training and skill, (iii) awareness and (iv) information and knowledge sharing [30]. The second study made by [29] which highlights the organisation employees' opinion on the importance and effects of organisational culture on BCM implementation and for the third literature, the aim is presenting the organisational culture metrics model by using the Goal-Question-Metric (GQM) approach in measuring the readiness of the organisation to implement BCM and it BCM compliance [31]. In short, the above literature reviews clearly show that there is no literature review that focuses on implementing BCM in Malaysia SMEs. Hence, it proves that the research on the particular subject of BCM implementation in SMEs is timely and called for.

Consequently, according to the previous literature reviews, in order to successfully implement BCM in Malaysia SMEs, it is very important to identify the CSFs of implementing BCM in Malaysia SMEs [28, 42, 47]. CSF has to be first identified as to ensure organisations management to be effective as it has to be tailored to the organisations specific objectives, businesses and managers in which the organisations operates and its strategies it has adopted [3]. Furthermore, as mentioned by Rockart [8], the process of identifying CSFs helps to ensure



that those factors receive the necessary attention and Rockart further proved that CSFs were those specifically distinguished areas that an organization needed to "get right" in order for the business to successfully compete. Thus, in terms of the BCM implementation, the CSFs are those conditions that must be met in order for its implementation to occur successfully.

Based on the results of a more comprehensive compilation and analysis of BCM implementation success factors, this paper seeks to present a new agenda on BCM implementation in local SMEs and to uncover deeper meaning of the strategic and tactical aspects of some of the more widely cited CSFs. Hence, the significances of the research are (i) to lead the research in the area of BCM in SMEs; (ii) raising the awareness on the importance of BCM to local SMEs industry; (iii) highlighting the actual current scenarios and issues of BCM implementation among SMEs in Malaysia and (iv) assisting SMEs in implementing BCM in their organisation based on CSFs identified. In the following sections, the selected research methodology chosen to prepare the compilation will be explained hence followed by a summary of the CSF categories and concepts as well as critical analysis of the BCM CSF literature.

2.0 KEY TERMS IN THE ARTICLE

A clear conceptual understanding of the following terms will be useful for people involved in business continuity management.

- a) Business function: A business function is defined as any set of activities performed by the department that is initiated by an event, transforms information, materials or business commitments, and produces an output.
- b) Business Continuity Management: Management process that safeguards the interests of its key stakeholders, reputation, brand and value creating activities by identifying potential impacts that threaten the organization and provides a framework for building resilience and the capability for an effective response.
- c) Enterprise Resource Planning: A generic term for a broad set of activities supported by multi module application software that helps organisations to manage their resources.
- d) Business Continuity Planning: Documentation of process that prepares organizations to identify and protect from potential internal and external threats which eventually will preserve the interests of its stakeholders as well as ensuring the continuity of critical business functions in events of disaster.
- e) Disaster Recovery Planning: A strategic business oriented plan that react to any business disruptions and is designed to restore immediately critical business functions and resources in the event of disaster.
- f) Incident: Incident is an event that occurs by chance or due to a combination of unforeseen circumstances, and which, if not handled in an appropriate manner, can escalate into an emergency or disaster.
- g) Crisis: An abnormal situation which threatens the operations, reputation, and stakeholders without causing physical harm to life and limb or the physical assets of an organization.
- h) Disaster: A disaster is a sudden, unplanned calamitous event, usually causing great damage or loss, which results in the inability of an organization to provide critical business functions for some predetermined minimum period of time.
- i) Emergency: Emergency is an incident requiring an immediate and significant response.
- j) Contingency: Contingency is a specific system's failure or disruption of operations.

3.0 LITERATURE REVIEW ON CSF

Critical success factors are a method of determining precisely what information needed by managers as a framework for strategic planning in directing them the elements that most needed to succeed in achieving goals and objectives. The concept of CSFs emerged in 1961, Rockart [8] stated that Drucker [17] have influenced the contemporary used of CSFs as a tool to identify management's needs and strategic priorities.

It seems that the concept of CSF has been studied in a broad range of context widely focusing on the influence of ERP implementation, though; it appears that the role of CSFs on the successful BCM implementation has attracted little specific attention. Regarding the CSFs, a factor can only be termed as CSF if attending to this factor in a satisfactory manner results in performance improvements. Therefore, merely identifying a possibly important factor is not sufficient to constitute a CSF. The problem of establishing whether a CSF is really critical is further compounded by the multidimensional contexts in which 'success' and 'performance' may be measured, such as by user satisfaction or successful completion of project, or through tangible and intangible benefits to an organisation. As mentioned earlier, there is only a few studies that have attempted to investigate the effect of proposed CSFs on implementation success and/or organizational. Noticeable examples include Barbara [4] where the study is conducted to examine whether the ranking of CSFs for implementing Business Continuity program have changed since the events of September 11th, 2001 as well as attempting to further increase the contribution to the academic and practitioner communities. Another study was done by [30] which explore and identify the success factors on the execution of business continuity management in the organization in Malaysia.

4.0 DEFINING THE SMALL AND MEDIUM ENTERPRISES

The development of Small and Medium Enterprises (SMEs) is becoming ever more significant as Malaysia is moving towards realizing its objective of becoming industrialised nation. The successful transformation and growth of the economy requires SMEs in the country to address the challenges of efficiency as well as the optimal utilization of existing resources in order to sustain and improve the national competitiveness. Malaysia SMEs are a vital component of the country economic development [39]. There have been many developments in the economy since 2005 such as price inflation, structural changes, change in business trends, a review of the definition was undertaken in 2013 and the new SME definition was simplified as follows:

a) Definition by Size of Operation

Category	Small	Medium		
Manufacturing	Sales turnover from RM300,000 to less than RM15 million or full time employees from 5 to 75	Sales turnover from RM15million to not exceeding RM50 million or full time employees from 75 to not exceeding 200		
Services & Other Sectors	Sales turnover from RM300, 000 to less than RM 3million or full-time employees from 5 to less than 30.	Sales turnover from RM3 million to not exceeding RM20 million or full time employees from 30 to not exceeding 75		

Table 1: Definition by size of operation



b) Classification of sectors

- Manufacturing refers to physical or chemical transformation of materials or components into new products.
- Services refer to all services including distributive trade; hotels and restaurants; business, professional and ICT services, private education and health; entertainment; financial intermediation; and manufacturing related services such as research and development (R&D), logistics, warehouse, engineering etc.
- Others refer to the remaining 3 key economic activities, namely;
 - i. Primary agriculture
 - Perennial crops (e.g. rubber, oil palm, cocoa, pepper etc.) and cash crops (e.g. vegetables, fruits etc.)
 - Livestock
 - Forestry & logging
 - Marine fishing
 - Aquaculture
 - ii. Construction
 - Infrastructure
 - Residential & non-residential
 - Special trade
 - iii. Mining & Quarrying

The Malaysian Government's commitment to, and concern for, the development of SMEs has been clearly evident since the early 1970s. The 'New Economic Policy' was introduced in1971, which aimed to improve people's welfare and restructure ethnic economic imbalances. The government's commitment to the development of SMEs can also be seen in the in the second Industrial Master Plan (IMP 2), which ended in 2005, which is followed by the Third Industrial Master Plan (IMP 3) 2006 – 2020, to coincide with the country's vision for 2020 [41].

The Malaysian Government has implemented various policies and strategies under these plans. The IMPs were formulated to enhance the growth of the manufacturing sector across the entire value chain and cluster-based industrial developments. Hence, this plan provides an integrated approach to the development of industrial areas and opportunities for growth of SMEs [41]. An evaluation of SME development in Malaysia made by [41] suggest that SMEs in Malaysia play a vital role in the nation's economy and are a major source of various economic contributions.

5.0 ANALYSIS OF BCM IMPLEMENTATION LITERATURE

This comprehensive literature review has involved extensive content analysis that has highlighted any and all possible references to CSFs by adopting conceptual analysis where a concept is selected, coded, and counted for its presence in a text or a corpus [23]. As aforementioned, a CSF is defined as reference to any condition or element that was necessary in order for the CSFs of BCM implementation to occur successfully.

Emphasis was placed on the meaning of the words as all CSFs, regardless of description, were noted with the understanding that the sorting phase would begin to place the CSFs in like



categories. Thus, the particular aim involved an inductive coding technique. Inductive coding technique provides a convenient and efficient way of analysing qualitative data for many research purpose, plus, more straightforward than some of the other technique [46].

The purposes of using an inductive approach are to (1) to condense extensive and varied raw text data into a brief summary format; (2) to establish clear links between the research objectives and the summary findings derived from the raw data and (3) to develop of model or theory about the underlying structure of experiences or processes which are evident in the raw data [45].

As highlighted by Strauss & Corbin [13], open coding is the part of analysis that pertains specifically to the naming and categorizing of phenomena through close examination of data. During open coding, the data are broken down into discrete parts, closely examined, compared for similarities and differences, and questions are asked about the phenomena as reflected in the data.

The primary purpose of the inductive approach is to allow the research findings to emerge from the frequent, dominant, or significant themes that exist in the raw data, without the restraints imposed by structured methodologies [45]. Given that the goal of this study was to identify and gain a depth of understanding of the various CSFs already identified by other researches which closely related to CSFs for BCM implementation, content analysis was deemed as an appropriate analysis approach. As suggested by Silverman [16], it is the most common technique when analysing texts.

5.1 Data Collection Procedures

As offered by Carley [11], the actual data collection procedure for the CSF compilation followed the eight category coding steps.

a) Step 1: Level of analysis.

This stage involved on deciding which level will be used to determine the results, whether to use single words or phrases while coding. Using single words is useful if the results will be contrast in a specific text or type of text with general usage. In contrast, phrases are useful in capturing broad based concepts. In a similar case, [45] and [5] also states that the first step of content analysis will be to determine the level of the sample that will be chosen and what units of analysis will be counted. Therefore, for the current research, the unit of analysis or level of analysis involved entire journal articles.

The data collection phase of the literature review involved an extensive search of many of the prominent journals including, but not limited to, as outlined in below:

- Information Systems Management
- Business Process Management Journal
- UMI Proquest LLC
- International Journal of Production Economics
- Proquest
- ACI World Facilitation and Services Standing Committee
- Taylor & Francis
- American Journal of Economics and Business Administration
- IT PRO (IEEE)
- Jonkoping International Business School



- Emerald Groups Publishing Limited
- EDPACS Proquest Central
- Accountancy Ireland Proquest Central
- Prentice Hall Financial Times
- Disaster Prevention and Management Journal
- Information Management & Computer Security
- Disaster Recovery Journal
- IEEE Journals
- Business Horizon (IEEE)
- Information Management & Computer Security
- Creighton.edu
- Disaster Recovery Journal
- Journal of Information Management
- American Journal of Economic & Business Administration
- World Academy of Science, Engineering & Technology
- International Journal of Information Management
- Journal of Corporate Real Estate Vol 7 No 2
- Decision Support Systems
- Business Horizon (Elsevier)
- International Federation of Accountants
- Information Security Journal
- Information & Management
- Business Process Management Journal

In addition, the following databases were searched; CBCA Business, BCI Institute, Proquest, Proquest European Business, Elsevier, Web of Science and Taylor & Francis. In a collective manner, these databases include hundreds of journals that are categorized as belonging to the business continuity and disaster prevention field.

Keywords used to complete this research were, in fact, chosen from the keywords supplied by the authors of some of the relevant articles identified in the preliminary literature review. The focus has been on the Business Continuity Management itself and not the components available in it (BCP, BIA, etc.)

The criteria selection on the article that will be included in the compilation will be depend upon the researcher decision after reading the title and it's abstract. If it does comply with the criteria required as well as contained the information that would be an indicator of the BCM implementation success factors, thus the article will be selected for further review.

b) Step 2: Decide on the steps to code for.

The coding process that involved at this stage is determining on whether to code for a specific pre-determined set of concepts or to allow for a more interactive coding approach [11].

c) Step 3: Decide whether to code for existence or frequency of a concept.

In this stage, it was decided to code for the frequency of the concepts. Indirectly, a better understanding of the relative importance of the factors can be obtained by code for the frequency of the concepts. The difference between existence and frequency coding concept is that simple existence-based comparisons simplify discussions of occurrence while frequencybased comparisons make possible discussions of saliency and emphasis.



d) Step 4: Decide on how to distinguish concepts

This stage referred to the level of generalization of terms. Choosing the right level of generalization is in many ways and art form dictated both by theoretical concern and by the type of analysis wishes to engage. During this stage, it was necessary to decide whether the concepts were to be coded exactly as it appeared, or to be recorded in some altered or collapsed form. The main problem of generalization is overgeneralization, that is, using categories of concepts that are so vague and important semantic distinctions are lost. Such overgeneralization not only produces ludicrous sounding texts but can also make texts that are different appear identical. Specifically, in this research, any words that implied the same meaning were categorized under the same construct, as for instance, "management support" and "management advocacy" have similar meanings and were placed within the same category.

e) Step 5: Develop rules for coding of texts.

In order to systematically generalize the concepts in the texts, it was necessary to create a series of rules or a thesaurus that translates less general concept into more general ones. The following translations rules were developed and applied:

- All articles were read for the first time and emphasis was placed on noting any references to a possible "success factor" that related to BCM. All highlighted concepts were recorded in the analysis. However, it is important to note that categories were not yet determined. The term 'success factors' as defined by Williams and Ramaprasad [49] offered four degrees of criticality: factors linked to success by a known causal mechanism; factors necessary and sufficient for success; factors necessary for success; and factors associated with success. This research also includes factors considered both necessary for and associated with success as it would be too restrictive to limit the compilation to only those factors that have been empirically proven to produce success.
- All article notes were then re-read in an attempt to determine similarity in concepts and the similar concepts were then placed in the same categories.
- Each category was then examined, and the concepts were thoroughly reviewed again to determine if it were possible to collapse, or subdivide and establish any additional categories.
- Once all categories were finalized, concepts were then reviewed in an attempt to determine construct terms. The determination of construct term might have come from one of the coded terms or it might have been an entirely new construct term.

f) Step 6: Decide on the 'irrelevant' information

This stage determined what to do with the information in the text that was not coded, as the literature and content analysis focused on the compilation of all concepts considered success factors in BCM implementation. Although, the content analysis involved with the entire document; however, it does only code for those aspects of the text that clearly noted possible success criteria.

g) Step 7: Coding the texts

The actual coding process was conducted using a manual technique as all translation rules identified in Step 5 were followed accordingly.



h) Step 8: Analyse your results

The actual analysis stage involved reviewing the construct in terms of frequency as well as critical evaluation of the CSF approach.

5.2 CSF Literature Compilations

Discovering categories and concepts: A total of 302 articles were reviewed and 101 were considered to contain success factors. The 302 articles were consisting of articles that highlight and focused on Critical Success Factors, Business Continuity Management, and Small and Medium Enterprises. The compilation does not give a limitation as those factors have been empirically proven to be too restrictive. Furthermore, as stated by Silverman [16], a good coding scheme would reflect a search for uncategorized activities so that they could be accounted for.

As mentioned by S. Finney [16], the first stage of the analysis involved categorizing or grouping same concepts into same categories. Success factors that appeared to refer to the same phenomenon were grouped into same categories together. Thus, after completion of the stage, 39 possible success factor concepts were identified, consequently, after a successive round of analysis of the concepts, it has been narrowed into several, producing only 16 CSF concepts in total.

5.3 Naming Categories

Each category was identified and was given its specific names according to the CSF concepts that were grouped into it. An attempt was made to name the category clearly so that it was enough to allow the reader to easily determine its referent.

Table 2 shows the 16 concepts of critical success factors of BCM implementation in small and medium enterprises. Considering the research of [22] as well as [16], it was decided to group the factors into strategic and tactical categories. Strategic factors are deemed as those that address the larger picture, and involve the breakdown of goals into do-able elements. However, on the other hand, tactical factors involve skilful methods and details. Specifically this addresses the various strategic elements that lead to achieve the goal [15].

5.4 Understanding the CSFs Categories and its Concepts

Each identified construct is outlined below with a detailed description of the concepts it represents.

Top management commitment and support. Top management commitment and support was one of the most two most widely cited CSFs. As mentioned by Finney & Corbett [16], this concept referred to the need to have committed leadership at the top management level. In addition, as mentioned by ACI [1], in order to develop or implement BCM as there are needs to be a dedicated effort, driven by the top management team to define the BCM structure and oversee its implementation. Gallagher [18] stressed that for BCM to work it must be driven and obtain a clear and unequivocal support from the top. Gallagher [18] also added that the single greatest influence that determines the state or condition of the plan, or of the whole BCM process, is the degree of commitment to it by top management. Any BCM is worthless without the consent of the upper level management team as the C-Suite level managers must agree to any plan forth and also must agree to support the action item listed in the plan if any emergency occurs, plus, during disruptive event, they have enough power and authority to speak for the entire organization [12].



Strategic Critical Success Factors	Tactical Critical Success Factor		
Top management commitment and	• Financial & Budget Utilisation		
support	Effective communication		
Industry Focused	• Education & training of BCM		
Key stakeholders	• Legislation		
Human Resources	• Participation of facilities and staff		
Cultural changes	BCP committees		
Ownerships	Awareness campaign		
BCM Organisation	• Leadership		
-	• Input of BCM programme		

Education and training of BCM. The purpose and importance of education and training is due to the assurance of the benefits and objectives of the BCM strategy can be communicated to the workforce and consequently achieving its objectives [20]. Furthermore, as punctuated by Tammineedi [44], training should be carried out as the content of training requirements vary depending upon the roles different categories of employees played. Momani [32] insist that training is needed in order to be able to implement the BCM effectively, as each employee who has the responsibility in BCM implementation should receive proper training. Training, testing and exercising are critical to the success of your plan and it does not have to be complex as it is particularly for small businesses. Thus the training can in the form of initial briefing for all staff as part of normal team briefings [10].

Effective Communication. In ensuring the effectiveness of BCM, BC professionals need a widespread communication of the BCP to all necessary parties for its effective implementation which at least require effective communication to all internal audiences, starting from the board down to the most junior employees [11]. The need of effective communication is stressed again by the Airports Council International [12] of the vitality of communication to all stakeholders and consequently needed to be aware of their roles and responsibility. Michael Gallagher [18] also highlight that effective communication arrangements is a must so that the staff will be keep informed of all developments, in case of emergency.

Cultural changes. In the study made by Tammineedi [44], embedding BCM in the organisational's culture as the BCM policy should be appropriate to the nature, scale, complexity, geography, and criticality of the business and must reflect the organizational culture, mission, vision and operating environment. Consequently, it offers the following, developing a BCM programme more efficiently, instilling confidence in the stakeholders in its ability to handle business disruptions, increasing its resilience over time by ensuring BCM implications are considered in decisions at all levels and lastly, minimizing the likelihoods and impact of disruptions [43], therefore, organizational culture will predict how BCM and any changes is handled [19].

Key stakeholders. As highlighted by Business Continuity Institute [36], external drivers such as key stakeholders has been driving the organisations in changing their approach to BCM, and the top driver for change remains existing customers and followed by the insurers of the organisations thus represent an increasingly prominent force for the promotion of BCM. Indirectly, Finney & Corbett [16] said that an intimate understanding of the CSFs of various stakeholders groups would determine the concerns of these relevant groups are being addressed as effectively as possible. [40] also highlights that as in any organisation, stakeholders in SMEs may have significant power to influence the efficiency and effectiveness of corporate activities.



Human Resources. Human resources are important as accentuated by [26] that people are carriers of knowledge and therefore the protection of knowledge as the production resources and the employees as the carriers of the knowledge is vital to take account the value of key employees which play an irreplaceable role in the process of BCM application. Human resources can be evaluated from two points; key position is the one that incorporates the most important activities that necessary to ensure key processes in an organization and another one is key individuals is the one that has such competences; knowledge, skills and abilities, which are essential to achieve the required level of performance. Furthermore, BCM processes consists of sets of activities which are much dependent upon human resources to initiate, enact, and control specific activities and on infrastructure, material, financial and information resources to provide the context and inputs [20].

Financial and Budget Utilisation. SMEs budgetary issues as SMEs do not have large budget in general [6] and due to the shortages in resources as such, it is more difficult for small firms to absorb the impact of business interruption, than it is in the case of bigger organization [15]. Forbes & Buchanan [20] mentioned that lack of investment in BCM can result in loss of revenue at best and cessation of business activities at worst.

Input of BCM programme. Michael Gallagher [18] in his study 'The Road to Effective Business Continuity Management 'strained that simplicity is the key as people are expected to be familiar with the plan and can be easily used in an emergency as plan that are too detailed can be worse than not having any plan at all. Detailed plan can be over prescriptive; a good plan will keep instructions to minimum and will be expressed as simple action points. Furthermore, in an emergency, decisions must be made as managers need flexibility to act as events unfold. Hence, it is important to make the BCM programme easy to read as the business plan must be well formatted and written in a simple language so that personnel can understand it easily as they read it [24]. For organisations that fall into the category of small or medium, development of a BCM could prove difficult as it's lacking on literatures aimed at the development of a business continuity plan which concentrates on smaller organisations [6]. As aforementioned on the need to keep the BCM programme simple, Botha & Russouw [6] explained, small organisations are generally less formal in the way operations are conducted in which its lead to a more casual control environment. As aforementioned on the need of a simple BCM programme, this concept again stressed the importance of the BCM programme to be simple and not complex. This is proved by Duncan et al [14], as the reluctance of some small and medium sized business firms to plan for continuity of operations resulted from the complexity of the continuity of operations planning templates presented by the government agencies and consulting firms.

Participation of Facilities and staff. Facilities and staff participation is important as it can raise the profile and encourage more participation in BCM [37].

Legislation / Legal Requirement. Momani [32] highlighted that it is important to consider legal requirements to which the organization subscribe to such as safety code of practices by considering such requirements the organization will both follow existing requirements and improve its business continuity capability.

Awareness campaign. Implementing a BCM programmes involves managing a number of related projects such as awareness raising that involves events which maintain the enthusiasm for undertaking a BCM programme [9]. Plus, awareness programme must be start after the appointment of a BCM manager and manager and staff should be aware of the significance of



BCM to the organization and of the commitment to it. BCM must be sold positively and everyone should be convinced that it is essential [18].

Ownership. [35] mentioned that ownership is critical factors in the strategic directions of a small and medium enterprises as there are two types of SMEs; (i) Wholly subsidiaries (ii) Wholly independent in which strategic planning is less likely to be in independently owned SMEs whereas it is more likely to be present in subsidiary SMEs because they tend to have access to the necessary resources. APEC SME Working Group [42] punctuated on the point of the SME owner should demonstrate a visible comment to BCM activities and should know that only verbal instructions are not enough to achieve successful results.

Industry Focused. BCM must be tailored to the company's specific objectives, business, managers, and the industry in which the company operates and the strategies it has adopted [3].

Leadership. Gallagher [18] emphasized on the need to identify and appointed a BCM manager in full time basis if the BCM is to be taken seriously as it is not something to be given to someone who has another executive role where BCM is regarded as add-on. Similarly, APEC SME Working Group [42] in its Guidebook on SME BCM also echoed the need to appoint a BCM leader who takes the initiative in company-wide BCM activities.

BCM Organisations. BCM should be business owned and business driven. A dedicated BCM team is required to facilitate the continuation of business operations efficiently in the event of business disruption [44]. Plus, the team should consist of people who understand the organization, its business, technology, processes, and business risks, in which the team will collectively provide the expertise within the organization. Roles, responsibilities and authorities shall be defined, documented and communicated in order to facilitate effective business continuity planning [32]. It is essential as accentuate by [32], to have objectives and targets that could be achieved given the resources and preparations, for instance, if a company provides internet services by depending on cables without having microwave data transferring system it cannot claim zero down time for their internet services due to cable failure.

BCP Committees. [21] accentuated in his study that the BCP committees should be established by top management as this committee will become the driving force to planning a BCM and implementing it later on. The committee will include personnel of the company as well as business people in order to align the BCM efforts with the on-going business strategy and to effectively communicate the planned efforts.

The content analysis also includes in the recording of frequency of the success factors citation. On later part of the analysis, Table III will reveal the five most widely cited concepts, top management commitment and support, education and training of BCM, effective communication, cultural changes and key stakeholders are significantly more often researched than the others.

5.5 Analysis of BCM Implementation Literature

The leading collection of research has catered a foundation with respect to the range of success factors that are cited in the literature as well as the frequency affiliated with each of the factors. Throughout the review, another significant observation was that there is an obvious gap in the literature to date, and it has become apparent that there is a lack of depth in the coverage of CSFs that related to BCM implementation. The literature that covers most of the CSFs review used in the research is related to BCM and also not precisely BCM. This is due to the facts that

BCM is consists of BCP, DRP, crisis management as well as risk management too [23], thus anything related to other approaches mentioned will definitely related to the development of BCM.

CSF Concepts	No. of instances cited in literature
• Top management commitment and support	23
• Education & Training of BCM	16
Effective communication	12
Cultural changes	8
• Key stakeholders	6
Human resources	5
• Financial & Budget Utilisation	3
• Input of BCM programme	3
Participation of facilities and Staff	3
Legislation	2
Awareness campaign	2
• Ownership	2
• Industry Focused	2
• Leadership	2
BCM Organisation	1
BCP Committees	1

In order to further identify the research gaps aforementioned, it is decided to divide the categories of BCM literature collections compiled for the purpose of the research into five categories and were consist of; (i) BCM History & Evolution, (ii) BCM Methodology, (iii) Strategic Approach on BCM, (iv) BCM on SMEs and (v) CSF Study of BCM.



Table 4: Literature Categories

	Literature Categories									
BCM History & Evolution BCM Methodology		BCM Concepts			BCM on SMEs		CSF Study on BCM			
BCI [1] [2] [3] [4]	M History & Evolution B. Herbane (2010) D.N. Garrett (2012) T. Calderon (2005) M. Gallagher (2003)	B [1] [2] [3] [4] [5] [6] [7] [8] [9]	CM Methodology G. Hibberd (2004) S. Balaouras (2008) W. Lam (2002) Tammineedi (2010) G. Forbes & S. Buchanan (2006) Bank Negara Malaysia (2008) J. Botha & R. Von Solms (2004) ACI (2012) W.J Duncan et al (2011)	[1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13]	BCM Concepts V. Svata (2013) G. Hinson (2012) L. Turnblatt (2010) P. Speight (2011) P. Gneist et all (2009) S. Foster & K. Dye (2005) Puc P Kleain (2012) Momani (2010) S. Kenkre, K. Nara & V. Pandit (2013) P. Rosenthal & G. Sheiniuk (1993) J. Nigg (1995), D. Thomas (1998),	[1] [2] [3] [4] [5] [6] [7] [8] [9] [10]	D.A Munster (2012) D. Lacey (2012) D. Th omas (2006) T. Mcsezane & J. McBride (2002) Disaster Recovery Institute (2004) B. Herbane (2010) ENISA (2010) IFAC (2006) C. Wang, E. Walker & J Redmond (2007)	[1] [2] [3] [4]	CSF Study on BCM N. Halimah, N. Hayaati & W.Ismail (2014) N. Halimah, N. Hayaati & W.Ismail (2015) N. Halimah, N. Hayaati & W.Ismail (2015) M. Barbara (2006)	
	[[10]	Directorate of Bank Supervision (2009) Vivian Ip (2009)	11) [13] rectorate of Bank [14] pervision (2009) [15]	 X. Zhang & A. McMurray (2014), B. Herbane, D. Elliot, M.Swartz (2014), M. Gallagher (2003), S. Jalil (2004), V. Cerullo & M. Cerullo (2004), Syrmoula (2007), A. Walker (2006), M. Pitt & S. Goyal (2004), M. Konigova & J. Fejfar (2013), A.J Karim (2011), D. Everest, R.E Garner, M. Keating (2008), J. Jarvelainen (2012), Rene S.G et al (2012) S. Khimani (2009) A. Kadam (2010) W. Boehmer (2009) H.E Miller & K.J Engemann (2012) J. Lindstrom, S. Samuelsson, A. Hagerfors (2010) 	[10]	[10] C. Chittithawar, Amirul, T Kewchana, D. Hasliza (2010)			



From the above Table 4, it can be seen that the researchers have very often focused on only a specific aspect of the implementation aspects; for example, BCM Concepts. There are only 2 literatures studied for CSF study on BCM implementation, while 6 literatures studied for CSF study on ERP implementations [2, 7, 16, 22, 33, 34].

N. Halimah, N. Hayaati & W.Ismail [27] in their research aimed to explore and identify the success factors on the execution of Business Continuity Management in Malaysia which was generalized into organization without what and which organisations. Based on its findings and discussion, there are four success factors identified that will influence and affect the degree of implementation success of BCM in organisations. Top management and support too emerged as the first success factors among the CSFs identified. As evidenced from the above references, it is confirmed that research gaps on the CSFs of BCM implementation in SMEs does exist and a special attention need to be put on emphasized. In summary, the concept of top management commitment and support as it applies to the BCM implementation in SMEs is extremely important.

6.0 CONCLUSIONS AND DIRECTION FOR FUTURE RESEARCH

Research on BCM implementation in SMEs and its critical success factors can be a valuable step towards enhancing the chances of implementation success. Frequently, CSFs are presented based on a review of already published literature or limited case studies. As there are lacking in the study of BCM implementation, review on the ERP critical success factors/implementation in SMEs literature were took into considerations and to date, prove to be vital in helping to identify the CSFs for BCM implementation in SMEs. As there are two classifications of SMEs; (i) owned by a small number of individuals or by an owner/manager and (ii) SMEs that are wholly owned subsidiaries of larger organization which practically they can fall back on the expertise and resources of the parent company compared to individually owned SMEs, thence in future, a research on CSFs of BCM implementation for both SMEs nature should be done for comparison purposes. In view of the limitations of the above mentioned literature and based on the recommendations of other researchers, there is a need to focus the future research efforts on the study of CSFs in Malaysia and to conduct more in-depth research into the indicators of the CSFs concepts identified. All of the BCM success factors are important in each own existence, and the gap in the aspect of this literature needs to be explored in more detailed discussions. From the findings, it is expected that this literature will benefited the SMEs in Malaysia to have a better understanding and identify the steps to improve the implementation of BCM in SMEs organization.

REFERENCES

- [1] ACI World Secretariat. 2012. "Best Practice Paper: BCM Framework and Case Studies For Health Related Disruptions at Airports."
- [2] Ahmad, M. Munir, and Ruben Pinedo Cuenca. "Critical success factors for ERP implementation in SMEs." Robotics and Computer-Integrated Manufacturing 29, no. 3 (2013): 104-111.
- [3] Asian Disaster Reduction Centre. 2012. "BCP Status of the SMEs in the Asia-Pacific Region 2012." Asian Disaster Reduction Center 2012.



- [4] Barbara, Michael. "Determining the critical success factors of an effective business continuity: disaster recovery program in a post 9/11 World: a multi-method approach." PhD diss., Concordia University, 2006.
- [5] Berg, Bruce L. 2004. Qualitative Research Methods for the Social Sciences. Qualitative Research. Vol. Seventh Ed.
- [6] Botha, Jacques, and Rossouw Von Solms. "A cyclic approach to business continuity planning." Information Management & Computer Security 12, no. 4 (2004): 328-337.
- [7] Bradley, Joseph. "Management based critical success factors in the implementation of enterprise resource planning systems." International Journal of Accounting Information Systems 9, no. 3 (2008): 175-200.
- [8] Bullen, Christine V., and John F. Rockart. "A primer on critical success factors." (1981).
- [9] Business Continuity Institute. 2010. "Good Practice Guidelines." Practice.
- [10] Cambridge Risk Solutions. 2010. "Business Continuity: Getting Started for SMEs."
- [11] Carley, Kathleen. "Coding choices for textual analysis: A comparison of content analysis and map analysis." Sociological methodology (1993): 75-126.
- [12] Conrad, Eric, Seth Misenar, and Joshua Feldman. CISSP study guide. Newnes, 2012.
- [13] Corbin, Juliet, and Anselm Strauss. "Grounded theory methodology."Handbook of qualitative research 273 (1994): 285.
- [14] Duncan, W. Jack, Valerie A. Yeager, Andrew C. Rucks, and Peter M. Ginter. "Surviving organizational disasters." Business Horizons 54, no. 2 (2011): 135-142.
- [15] ENISA. 2010. "IT Business Continuity Management An Approach for Small Medium Sized Organization." ENISA: BCM: An Approach for SMEs.
- [16] Finney, Sherry, and Martin Corbett. "ERP implementation: a compilation and analysis of critical success factors." Business Process Management Journal13, no. 3 (2007): 329-347.
- [17] ROCKART, FJ, and NS FORSTER. "Critical Success Factors: An Annotated Bibliography." Center for Information Systems Research, Sloan School of Management, Massachusetts Institute of Technology (1989).
- [18] Gallagher, M. "The road to effective business continuity management."Accountancy Ireland 37, no. 2 (2005): 66-68.
- [19] Garrett, David N. "The evolution of business continuity management in large Irish enterprises between 2004 and 2009." PhD diss., Dublin City University, 2012.
- [20] Gibb, Forbes, and Steven Buchanan. "A framework for business continuity management." International journal of information management 26, no. 2 (2006): 128-141.
- [21] Gneist, Peter, Robert Kiersz, and Omid Osman. "The need for a developed Business Continuity Plan." (2009).



- [22] Holland, Christoper, Ben Light, and Peter Kawalek. "Beyond enterprise resource planning projects: innovative strategies for competitive advantage." Proceedings Of The 7th European Conference On Information Systems 1 (1999): 288–301.
- [23] Huckin, Thomas. "Content analysis: What texts talk about." What writing does and how it does it: An introduction to analyzing texts and textual practices(2004): 13-32.
- [24] IFAC. 2006. "Business Planning Guide : Practical Application for SMEs."
- [25] Jalil, Shamsuddin Abdul. "Raising Business Continuity Management Awareness in Malaysia." Business Continuity Management, 1–8.
- [26] Königová, M., and J. Fejfar. "Role of Personnel Planning in Business Continuity Management." In Proceedings of World Academy of Science, Engineering and Technology, no. 76, p. 213. World Academy of Science, Engineering and Technology (WASET), 2013.
- [27] Lin, Ong Ai. 2008. "Business Continuity Planning: A Global Overview & Status in Malaysia." In Pre-Conference for the 3rd Asian Ministerial Conference on Disaster Risk Reduction.
- [28] Pheng Low, Sui, Junying Liu, and Stephen Sio. "Business continuity management in large construction companies in Singapore." Disaster Prevention and Management: An International Journal 19, no. 2 (2010): 219-232.
- [29] Mansol, Noorul Halimin, Najwa Hayaati Mohd Alwi, and Waidah Ismail. "Embedding organizational culture values towards successful business continuity management (BCM) implementation." In Information Technology and Multimedia (ICIMU), 2014 International Conference on, pp. 31-37. IEEE, 2014.
- [30] Mansol, Noorul Halimin, N. H. Mohd-Alwi, and Waidah Ismail. "Success factors towards implementation of business continuity management in organizations." International Journal of Digital Society (IJDS) 5, no. 1 (2014): 869-871.
- [31] Mansol, Noorul Halimin, Najwa Hayaati Mohd Alwi, and Waidah Ismail. "Managing organizational culture requirement for Business Continuity Management (BCM) implementation Using Goal-Question-Metric (GQM) approach." In Open Systems (ICOS), 2015 IEEE Conference on, pp. 85-90. IEEE, 2015.
- [32] Momani, Naill M. "Business continuity planning: are we prepared for future disasters." American Journal of Economics and Business Administration 2, no. 3 (2010): 272-279.
- [33] Fui-Hoon Nah, Fiona, Janet Lee-Shang Lau, and Jinghua Kuang. "Critical factors for successful implementation of enterprise systems." Business process management journal 7, no. 3 (2001): 285-296.
- [34] Ngai, Eric WT, Chuck CH Law, and Francis KT Wat. "Examining the critical success factors in the adoption of enterprise resource planning." Computers in Industry 59, no. 6 (2008): 548-564.
- [35] O'Regan, Nicholas, and Abby Ghobadian. "Effective strategic planning in small and medium sized firms." Management Decision 40, no. 7 (2002): 663-671.



- [36] Patrick, Woodman. 2007. "Chartered Management Institute 2007 BCM Survey." Business Continuity Management, no. March.
- [37] Pitt, Michael, and Sonia Goyal. "Business continuity planning as a facilities management tool." Facilities 22, no. 3/4 (2004): 87-99.
- [38] Raihani, Z. N., K. N. Fadhilah, Y. Kurniawan, A. R. NurSalihah, and W. S. W. Yusoff. "Obstruction of Applying E-Business among Batik Entrepreneurs in Pasar Siti Khadijah." 3 (2016): 26–39.
- [39] Ram, Jiwat, David Corkindale, and Ming-Lu Wu. "Implementation critical success factors (CSFs) for ERP: Do they contribute to implementation success and postimplementation performance?" International Journal of Production Economics 144, no. 1 (2013): 157-174.
- [40] Zuraidah Raja Mohd Rasi, Raja, Amir Abdekhodaee, and Romesh Nagarajah. "Stakeholders' involvements in the implementation of proactive environmental practices: Linking environmental practices and environmental performances in SMEs." Management of Environmental Quality: An International Journal 25, no. 2 (2014): 132-149.
- [41] Saleh, Ali Salman, and Nelson Oly Ndubisi. "An evaluation of SME development in Malaysia." International Review of Business Research Papers 2, no. 1 (2006): 1-14.
- [42] SMEWG. 2013. Guidebook on SME Business Continuity Planning for Small, Medium Enterprises.
- [43] Syrmoula, Stamatopoulou. 2010. "Business Continuity."
- [44] Tammineedi, Rama Lingeswara. "Business continuity management: A standards-based approach." Information Security Journal: A Global Perspective 19, no. 1 (2010): 36-50.
- [45] Thomas, David R. "A general inductive approach for analyzing qualitative evaluation data." American journal of evaluation 27, no. 2 (2006): 237-246.
- [46] Thomas, David R. "A general inductive approach for analyzing qualitative evaluation data." American journal of evaluation 27, no. 2 (2006): 237-246.
- [47] VMIA. 2012. "Understanding Business Continuity Management."
- [48] Waqar, A, A Wasim, H Salman, M Jahanzaib, H Aziz, "Environmental Management System Framework for Sustainability Achievement in Higher Educational Institutions" Technology Taxila 3, no. 1 (2016): 47–70.
- [49] Williams, J. J., and Arkalgud Ramaprasad. "A taxonomy of critical success factors." European Journal of Information Systems 5, no. 4 (1996): 250-260.