

PalArch's Journal of Archaeology of Egypt / Egyptology

Analysis Of Small And Medium Enterprises' Crisis Management: A Multi-Case Study

Pradeep Kumar Aggarwal

Department of Management, Sharda University, Greater Noida, Uttar Pradesh, India

Email: ¹pradeep.aggarwal@sharda.ac.in & kr.gola@sharda.ac.in

Pradeep Kumar Aggarwal: Analysis Of Small And Medium Enterprises' Crisis Management: A Multi-Case Study -- Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(6). ISSN 1567-214x

Keywords: Management of Crisis, Management Practices, Medium & small Enterprises, SMEs Case Study

ABSTRACT

Crisis management work includes a range of viewpoints from recession effects, strategic perspective and direction, risk managing & professional skills. Something that isn't so obvious is how small to medium-level companies function through dynamic crisis response systems. There exists very little knowledge regarding the way in which SMEs organize, react, restore & develop via crisis situations. To address this gap in the research, a multi-case research seeks to examine the real disaster management strategies of 5 SMEs. The present research aims to discuss the processes associated with SMEs that are utilized to handle crises. The case study findings indicate that SMEs demonstrate robust business sensitivity given their capital limitations and fairly poor market positions. Furthermore, this paper indicates that successful SME crisis management requires strategic market strategy for balanced development & resolution.

1. Introduction

In today's world, businesses need to concentrate upon Philosophy of today's business strategy: trying to improve the management dimension, handling socio – economic conditions, becoming socially conscious. Throughout this evolving background, crisis management mechanism at both the theoretical and operational rates will be re-evaluated. Within a corporate context, systematically trying to handle crisis events includes learning about crisis preparation & accurate estimation in an organization. The changes in an organization, internal & external atmosphere need to be told to the employees. Industries are witnessing dynamic catastrophe occurrences in today's volatile market world including wide scale natural failures, rapid political and social developments and significant economic disturbances. Organizations need to

take prompt and appropriate solutions to such unpredictable incidents, i.e., crisis management, for their stability and development. Crisis management study requires a diversity of viewpoints which include: effects of the crisis, strategic vision and governance, risk assessment & technological abilities. In comparison, much of the work on crisis management continues to concentrate upon broad business environments [1]. Nonetheless, crisis management strategies in small & medium enterprises (SMEs) have not been thoroughly studied for sound hypothesis building & realistic management consequences.

SMEs are essential in both industrialized and developing countries for wealth generation and distribution in the new global marketplace. Throughout the European Union, small & medium-sized businesses account for over 98 percent of the overall number of companies; in the United States, small & medium-level businesses include over 76 percent of the net new workers & account for 98.7 percent of all employers; and in Asia, small and medium-sized companies contribute about 71 percent of the workforce [2]. SMEs cannot explicitly communicate with the original equipment manufacturers (OEMs) in a dynamic industry sense and supply chain networks. Instead, they are closer to suppliers and end-customers in the second or third tier than that of the major corporations (Figure 1). SME executives are fully conscious of the financial limitations and comparatively poor business positions. Nevertheless, they are very eager to employ their scarce financial capacity, based upon creative leadership, visionary strength, contact with consumers & suppliers & tremendous learning skill. Studies in small and medium-sized enterprises can thus generate huge insights into organizational mechanisms, management structures, functional practices to changing environments which include events of crisis.

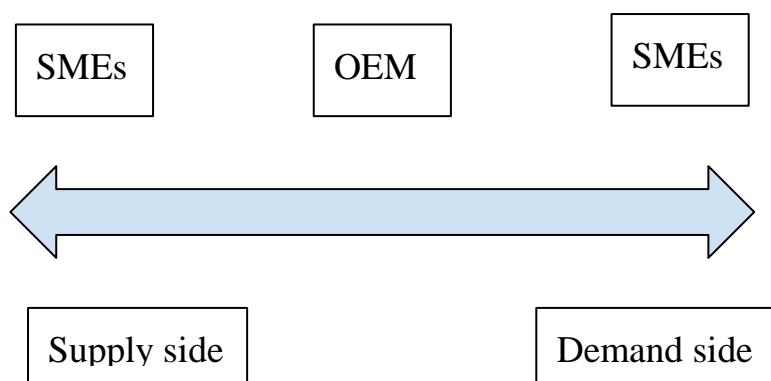


Fig 1 indicates the position of SME in supply chain management. They are closer to suppliers and end-consumers in the second and third tier.

It takes considerable time for every situation to manifest their real existence. Crisis management is clearly process-driven. Based on previous researchers' work, Figure 2 offers a proposed model for crisis planning that involves 4 distinct phases, such as identification, occurrence, resolution, & restoration. Early warning signals are given during the identification phase. Early detection

of multiple regression of crisis appears in organizational contexts. Timely contact on these signals enables organizations to appoint critical employees, distribute the required resources and plan sensitive behaviour. Crisis typically occurs in the occurrence phase and is doing measurable harm. Companies intend to make accurate approaches to reduce adverse effects as well as involve the extent and frequency of the crisis. In the recovery phase, companies need to enact processes to restore normal business operations & restore important functional capabilities. Ultimately, companies assess appropriate disaster response practices at the recovery point & then focus past the incidents of disaster.

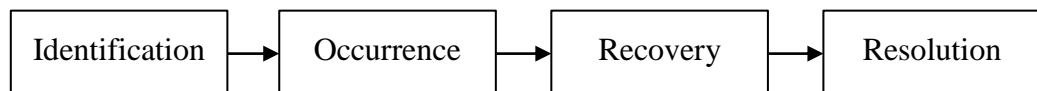


Fig 2 shows the management model of business crisis. This model includes 4 phases that enhance the crisis planning strategy.

Research into crisis management is critical for SMEs. Previous studies regarding SMEs address a broad variety of topics like the role of organized structured preparation, crisis prevention, cyber management & obstacles to natural disaster restoration [3]. Something that isn't so obvious is how small to medium-level companies function through dynamic crisis response systems. There exists very little knowledge regarding the way in which SMEs organize, react, restore & develop via crisis situations. The main objective of this research is therefore to explore crisis management systems from the viewpoint of SMEs and their successful frameworks for handling crises. First a generalized crisis management method is introduced to extract a particular crisis management framework.

Research questions:

- 1) What is the way of managing the SMEs in their vital crisis-management process?
- 2) What effective framework is used for SMEs in handling the crisis?

2. Literature Review

Given a long-established literary work on crisis management which concentrates over big business, crisis management preparation is less thoroughly studied in the sense of medium & small level businesses (SMEs). Utilizing data obtained from 200 UK SMEs, this literature analysis examines the attitudes & perspectives of managing directors of SMEs with respect to crisis management preparation [4]. It further explores differing attitudes of non-planning & planning SMEs. Study shows 6 aspects that lead to durability by preparation, perfect storm, financial effects, control of operating emergencies, recovery & atrophy outcome. Findings suggest how disaster awareness & nature of disaster faced influence the determination by

administrators about how preparation should be utilized to tackle crisis avoidance & lower effects.

During times of extended economic recession, the businesses and the SMEs in particular are adversely affected. These give indicators like rising revenue, declining earnings, funding indulgence, the challenge of meeting suppliers' obligations. In the opposite, other reports suggest that there are already several industries that have been significantly impacted by the economic crisis, there are businesses that display impressive performance, and they appear to benefit from the recession & take advantage of opportunities. Within the same geographical area, and to the same consumer sector, the disparity in the identification of the firms also was noted. A rather significant function appears to play a significant role in the particular nature of knowledge management in conjunction with the diversification of the reference of the businesses. Researchers have focused upon this aspect in this particular literature review, which implies handling the details as a strategic means to the face & managing the SMEs' crisis [5]. Why SMEs who are recovering from the financial crisis find profitability as a benefit of enduring strategic knowledge processing would be investigated. The study should focus upon Greek company sector, & especially on Greece's SMEs. Evidential data that were gathered via interviews with Greek SMEs of various industries & sizes will be used.

The relationship of business-risk throughout nations does not necessarily fall into a pattern nor does it have a strictly palliative impact. With this concept, the aim of this report is to improve a comparative analysis on small to medium-level enterprises (SMEs) managing both crisis & risk management as per recent personalized balance scorecard (BS) framework. The modern risk and crisis management approach seeks to enhance the management resilience & efficiency of all SMEs across all the phases of the crisis, something that has not been tried in the literature to date. The implementation of such a BS derives from the researcher's background as a banker funding numerous SME sectors, as a risk management bank specialist, but mainly from the findings of a survey carried out on a collection of SMEs, similarly chosen from the banking, production and services fields. The data also find the period 13/2009-07/2012 to be representative of the current global financial crisis which affects the whole Union region of Europe [6]. Apparently, the findings of this analysis indicate a substantial increase in the financial success of the SMEs that utilized this framework when opposed to those who did not. The flexibility of this concept applies to executives and policymakers to consider essential market threats and events correlated with the crisis. Supported by this concept, this research is based upon comparative study of SMEs dealing with risk & crisis management based upon a modern customized BS framework.

During periods of distress, companies need to track existing expenditures closely, & estimate future losses that may be triggered by reckless behavior. Risk is present in all operations of the company and in all practices. Knowing how to recognize threats, assign an importance and a target rate, plan measures

and processes to mitigate risks, and track them on an ongoing basis, are important for ensuring the sustainability of businesses and generating lasting value. This is especially relevant for medium & small level enterprises, owing to scarce capital and institutional characteristics that are more vulnerable to the adverse consequences of the uncertainties. The goal of this literature review is to examine accessible literature for medium & small businesses mostly on the topic of risk management from 2000 to 2010 [7]. The study draws fascinating features from the experimental trials, identifying limitations & recommendations for potential work.

Previously, a researcher attempted to analyse the role of entrepreneurial orientation (EO) in the global economic downturn & how it would alleviate the detrimental impact of economic recession on both the activities of the company & upon financial results of the business [8]. For evaluating the hypothesis, a quantitative method has been utilized. Empirical survey results are used for the primary factor evaluation & multiple regressions. Reports focused on a survey of approximately 198 Finnish SMEs showed that the multiple aspects of the EO could have divergent consequences on how the crisis affects businesses. In particular, the more inventive & assertive the company is, the less the recession affects its operations, and the greater the company's risk-taking, the more recession affects its profitability. A retrospective approach – rather than the existing cross-sectional method – had provided the study variables a clearer basis for investigating the causal relationships. This was one of the earliest studies to relate EO to the impact of recession at the organizational level of the company & the study extends existing awareness by bringing the connection between EO & results into the sense of recession.

Financial risk control is a major field of SME analysis. SMEs' capacity to grow strongly depends on their willingness to spend capital in their business growth. Such projects require funding, & therefore exposure to internal or external sources of financing. Several researchers agree that SMEs have limited access to outside funding sources. The researcher has attempted to identify & correlate significant factors associated with financial risk in the SMEs section [9]. Research carried out on the views of entrepreneurs was undertaken in Denmark in 2016 & centred on exploring the impact upon the approaches to financial risk management of variables like gender & degree of education of businessmen. It was noticed that 3 quarters of businessmen in the SME sector in Denmark consider the extreme financial risk activity while at the same time their capacity to handle financial risks adequately in the SME segment is not at an acceptable stage. During the recession, the value of financial risk increased which is expressed in SMEs' demanding approach to external funding. Just a comparatively limited percentage of businessmen build their company's financial capital, and this strategy does not have the considerable weight in the SME market. Important gaps in SME entrepreneurs' strategies to financial risk reduction about gender & educational level have not been established.

Predicting the recession in businesses & determining the risk of crises is a significant theoretical & realistic topic that is being studied from the viewpoint of economics, corporate management and law by numerous scholars. Various researchers proposed various frameworks for the recognition of the company's situation, but most of them are focused on the objective evaluation of the financial ratios. These frameworks have restricted flexibility because of the lack of considerations measured by small and medium-sized businesses. Throughout the SME market, the recognition of the company's problem is unique due to the complexity of the corporate administration of SMEs, which allows the high reliability of the business performance on human capital and environmental factors. In this report, the collection of qualitative and quantitative considerations is suggested in order to promote the creation of the crisis recognition models for SMEs by businesses [10]. The suggested set of criteria enables the recognition of the actual situation in the company with regard not just to the financial reports but to a wide range of aspects relating to the management capacities of the company, human resources competences, possible effects of external & internal environmental variables & other non-quantitative issues. The suggested collection of parameters could be utilized to build a market problem recognition model that will help forecast the future company problem in the SME sector.

3. Methodology

Design:

The accompanying multiple-case analysis was undertaken to support the research objective which is to investigate how SMEs interpret these general crisis procedures & what they really do. Specifically, widely agreed case study approaches were followed in forms of research standard, forming list of questions, data collection & interpretation. For their company experience, awareness of the whole enterprise & the important positions they perform for crisis management, top executives of SMEs are included in this case study. Pre-structured interviews were performed with a consortium of organizations to develop accurate questionnaires. The focus of this research is about how SMEs view the structures of crisis management. The actual, standardized questionnaire is decided after many modifications.

Sample:

When the final formal interview questionnaire is accessible, interested companies are chosen on the basis of the following criteria: small & medium-sized enterprises (< 600 employees); have real observations of crisis from their viewpoint during the past 4 years; & are eligible and eager to engage in this analysis.

Data Analysis:

Email messages were sent to senior executives from hundred randomly picked SMEs. There have been 16 senior SMEs managers who have expressed interest in participating in this research. And they were given further follow-up mails to talk about the concept of crisis, their real observations with the crisis over the last four years. Some companies who have had no previous encounters of the recession have been withdrawn. As a consequence, six of them claimed their companies witnessed disaster situations and have little concrete to say regarding their methods in crisis management. Specific phone calls were then made to set up face-to - face interview dates with the senior executives of those 6 companies. 2 companies refused to engage in the in-depth interviews owing to schedule issues & another company was unable to share their standard knowledge, something of a private concern. The finding was the participation of senior managers from 4 SMEs in this research. The sample size is deemed appropriate for case analysis. Participating companies shall be listed as P, Q, R, S AND T for secrecy.

Constructing evidence, problems associated with reliability as well as external & internal validity were addressed in the design and behaviour stages of case study to ensure the consistency of the case study [11]. Table 1 outlines the interpretation of these 4 requirements, as well as the methods utilized to guarantee them in the present study. In specific, the draft case definition and case report were submitted back to the interviewees for evaluation & clarification, in order to maintain validity. In order to maintain internal validation, the findings of the case study were measured to a forecast given by a panel of seasoned analysts and managers. Case research populations were picked for variety to ensure objective validity. To guarantee precision, a community of market analysts created and tested a comprehensive case study procedure. Comprehensive recorded interviews were also taken; all information produced from the interview phase was collected; and interview conversations in MP3 format were registered. Both these dossiers have been well known. Utilizing the data gathered, data analysis implements both theoretical suggestions approach and case definition strategy formulation & uses pattern matching & interpretation creation as key methods in both case-by - case and case-by-case situations.

Table 1 shows the relevant tactics and testing method used in the case study. This case study outlines the interpretation of the SMEs requirements.

Testing	Tactics utilized	Description
Validity to construct	Discussion of draft case study by primary investigators	Maintaining the right control variables for the philosophies under study

Internal Validity	Pattern fixing	Maintaining a causal association, under which such circumstances are seen to contribute to other factors, as distinct from baseless relations
External Validity	Correlated with various case studies	Create the area to which the results of a research may be contextualised
Reliability	Database & protocol of case study	Proving that studies activities like data collection techniques may be replicated with the same findings

4. Results

Company P:

Company P is an American automotive stamping company, the Detroit big four's first-tier manufacturer. Thanks to technical obsolescence, the managing director with 7 years of work experience at Company P was consulted & described the most severe problem as de-sourcing of their main clients. Until the crisis case, Company P detected indicators of imminent recession, like the decline in orders issued, the sudden technical advancement in rivals and so on. Company P has taken on a range of activities to plan for the possible crisis scenario, like expanding its sector, expanding its clients & updating its technical infrastructures. Company P lowers the operational expenses by laid off staff and decreasing working hours until the recession has already happened. In the process, Company P moved from its existing target audience & aggressively engaged in technology growth. As a result, Company P effectively prevented the decline in revenue and retained its large clients. During a disaster situation, Company P implemented a comprehensive response program that stressed rehiring staff, upgrading facilities & engaging proactively with consumers & suppliers. Depending upon the lessons learned from the crisis, Company P developed a system that upgraded its technical infrastructure annually to deter any comparable crisis further in future.

Company Q:

Company Q is an International business enterprise with a staff of only 16. The interview was arranged with the president of Company Q. The problem at Company Q was the termination of the main supplier. The primary manufacturer of their main raw material in particular unexpectedly raised the price & eventually avoided selling, while the manufacturer sought a more lucrative buyer. This sudden recession pressured Company Q to end the new production line & move to a production line which was much less competitive. Company Q could not sense any signs before the crisis incidents to cope with this situation, & had no contingency plan. It has also reacted reactively to this

crisis situation by adjusting the profit-making target sector. The scarcity of a structured & efficient crisis resolution process inevitably contributed to Company Q bankruptcy.

Company R:

Company R is a company that blanks American products. An operating and sales advisor who had served seven years with this organization was consulted. The recession has been caused by the regional economic downturn, for Company R. The recession has contributed to erosion of existing customers and market instability. Company R has embarked on a number of activities to cope with this large-scale crisis situation. For e.g., Company R kept monitoring the atmosphere and finding signs of a possible crisis until the crisis happened. The managers of Company R thus proactively designed and implemented related crisis management strategies effectively. In specific, company R diversified its customer divisions & bought insurance.

Company R shifted its target sector from the automobile business to the telecommunications industry after the recession had already arisen & lowered labour expenses by laying off workers, shortening working hours & consolidating manufacturing processes. Company R developed a comprehensive turnaround program during the disaster incidents, which stressed rehiring workers and engaging with their vendors and clients to restore the company relationships. As the company returned to daily operations, Company R changed its operating strategies & organizational structures depending upon the lessons learnt from the traumatic incidents to further enhance its business performance. With this systemic phase, Company R not only survived the crisis but also rejuvenated its company by transforming this crisis occurrence into a modern opportunity for growth, while most other competitors are still in struggle.

Company S:

Company S is a state-owned provider / help company in engineering. Interviewed was a project leader with over 6 years of job experience with this company. Company S has been facing a disaster arising from a severe failure of the IT infrastructure owing to the faulty main machine. Located at five separate places of work, their development groups were extensively coordinated through their IT program. And the whole company was forced to close down for a week when the IT infrastructure failed. The reputational & financial loss resulting from this crisis is massive. Company S has provided no pre-warning systems & backup planning in the entire crisis management procedure. Company S's IT team operated tirelessly to restore the device in order to cope with this situation, assisted by senior managers. When the network has been restored, Company S has developed a turnaround strategy to catch up all the missed activities and connect proactively with consumers in order to maintain the company. Company S finally resolved the disaster

situation as a result but it did not allow any modifications and changes to its operating structure. And it can suffer in the future from the same crisis.

Company T:

Company T is a supplier of medical care facilities. It provided the facilities of MRI (Magnetic Resonance Imaging), which took photographs & examined films. The CEO who had served four years in this company was consulted. The problem confronting Company T was the fall in power supplies stemming from a major snow storm. The MRI unit was fully removed as the primary machinery. This abrupt crisis culminated in significant losses in terms of cost of system maintenance and customer project delays. While Company T did not expect the natural catastrophe precisely, it did have a general plan of contingency & bought insurance. Company T formed a recovery strategy after the power source was restored, & took a series of operations. For e.g., Company T proactively worked with consumers with the guidance from top management to clarify the circumstances & collaborate with vendors to repair faulty tools & equipment. Consequently, successful & prompt crisis management strategies have enabled Company T retain its regular clients & also improve its reputations. Demographic data is demonstrated in table 2.

Table 2 shows the demographic data of the respective companies (P, Q, R, S and T). The data is classified into several different aspects of the companies.

	Company P	Company Q	Company R	Company S	Company T
Position	Managing Director	President	Sales Advisor	Project leader	CEO
Industrial sector	Manufacturing	Manufacturing	Blanking	Construction	Medical-care
Employees	500	16	35	1200	32
Annual Sales (in dollars)	50000000	2000000	12000000	N/A	6000000
Total number of years worked in the company	8 yrs	6 yrs	8 yrs	7 to 8 yrs	5 yrs
Cause of crisis	De-sourcing of consumer	Suspension of Supplier	Economical aspects	Shut down of IT systems	Natural disaster
Results of Crisis	Innovative improvements	Bankruptcy	Rejuvenation of Company	Restoration	Reputation reinforcement

Based on the findings of the case report, it was noted, however, that these 5 sample businesses utilized some of the practices to handle their crisis events (See table 3).

Table 3 shows the crisis management strategies of SMEs. From the case study, it was found that the 5 companies have implemented some of the management practices.

	Company P	Company Q	Company R	Company S	Company T
Environmental scanning	✓		✓		
Management Intervention	✓		✓		✓
Diversification of market	✓		✓		
Reduction of cost	✓		✓	✓	
Market switching target	✓		✓		
New strategic plan	✓		✓		
Leadership	✓	✓	✓	✓	✓

5. Conclusion

This work provides a variety of useful perspectives for crisis management in SMEs. This is not unusual to believe that small to medium-sized companies are less capable of coping with financial situations than large businesses. But SMEs are not reacting passively to crisis events. Alternatively, despite minimal money, they are very capable of proactively handling crises. They speak clearly & frankly regarding the crisis scenario with their corporate associates & clients, & pursue appropriate support and foster mutual empathy to minimize the negative effects. SMEs are quite specifically feeling the effects of the disaster cases. Later they sense the indication of disaster or interpret the effects of smaller disruptions on their total operating outcomes. SME executives indulge with vigor & zeal while mobilizing and inspiring their workforce & other stakeholders. In this context many SMEs show their distinctive types of crisis management given their poor business competitive strength. SMEs must build competitive revenue prospects in applying crisis management by going

past their current clients & trying to target broader export markets. Due to budget limitations, though, SMEs usually depend on a portion of the entire crisis management cycle.

Often, SMEs seem to just rely on themselves. The absence of a structured protocol is described as a significant deficiency in crisis management at SEMs. To support small and medium-sized businesses resolve this weak point, focused on a case-by-case analysis of small and medium-sized companies, this work provides a crisis management model for small and medium-sized businesses that describes different phases of crisis management procedures, suggests a series of comprehensive activities for each level & could be applied in the market context of all sectors. Practitioners working in industries could use the results of this research in various ways. Initially, from a theoretical point of view, the crisis management paradigm of the SEMs offers practitioners with a general image of the crisis process. Basically, managers of SMEs should obtain a thorough understanding & change their strategic strategies appropriately to create a framework for systemic crisis management. The crisis management paradigm of SMEs offers professionals with perspectives into common disaster management strategies from the organizational viewpoint. Managers of SMEs, in particular, should use the best strategies recommended by this model as guides for enhancing their own crisis management operations. Second, the disaster management approach of SMEs is often beneficial to big corporate leaders. Using this framework, large organizations will get a clearer understanding of the difficulties & opportunities of managing crisis for SMEs & therefore help have the requisite resources for SMEs who are vital to the reliability & quality of their procurement or distribution system.

References

- B. Herbane, "Small business research: Time for a crisis-based view," *Int. Small Bus. J.*, 2010, doi: 10.1177/0266242609350804.
- C. Harvie, D. Narjoko, and S. Oum, *Economic integration in East Asia: Production networks and small and medium enterprises*. 2015.
- R. C. Runyan, "Small business in the face of crisis: Identifying barriers to recovery from a natural disaster," *J. Contingencies Cris. Manag.*, 2006, doi: 10.1111/j.1468-5973.2006.00477.x.
- B. Herbane, "Exploring crisis management in uk small- and medium-sized enterprises," *J. Contingencies Cris. Manag.*, 2013, doi: 10.1111/1468-5973.12006.
- K. Bourletidis, "The Strategic Management of Market Information to SMEs during Economic Crisis," *Procedia - Soc. Behav. Sci.*, 2013, doi: 10.1016/j.sbspro.2013.02.096.
- S. M. Yiannaki, "A systemic risk management model for SMEs under financial crisis," *Int. J. Organ. Anal.*, 2012, doi: 10.1108/19348831211268607.
- C. Verbano and K. Venturini, "Managing risks in SMEs: A literature review and research agenda," *J. Technol. Manag. Innov.*, 2013, doi: 10.4067/s0718-27242013000400017.

- J. Soininen, K. Puumalainen, H. Sjögrén, and P. Syrjä, "The impact of global economic crisis on SMEs," *Manag. Res. Rev.*, 2012, doi: 10.1108/01409171211272660.
- J. Belás, A. Ključnikov, S. Vojtovič, and M. Sobeková-Májková, "Approach of the SME entrepreneurs to financial risk management in relation to gender and level of education," *Econ. Sociol.*, 2015, doi: 10.14254/2071-789X.2015/8-4/2.
- R. J. Kurschus, T. Sarapovas, and A. Cvilikas, "The criteria to identify company's crisis in SME sector," *Eng. Econ.*, 2015, doi: 10.5755/j01.ee.26.2.8779.
- R. K. Yin, *Applied social research methods series*. 1994.