

RISUS - Journal on Innovation and Sustainability volume 10, número 2 - 2019

ISSN: 2179-3565

Editor Científico: Arnoldo José de Hoyos Guevara Editora Assistente: Lívia Lopes Aguiar

Avaliação: Melhores práticas editoriais da ANPAD

EMPIRICAL STUDY ON THE ANTECEDENTS PREDICTING ORGANIZATIONAL RESILIENCE OF SMALL AND MEDIUM ENTERPRISES IN BANGLADESH

Estudo empírico sobre os antecedentes que preveem a resiliência organizacional de pequenas e médias empresas em Bangladesh

Munshi Muhammad Abdul Kader Jilani^{1,2}, Luo Fan¹, Mansura Nusrat³, Md. Aftab Uddin¹
1 School of Management, Wuhan University of Technology, P.R. China, 430070
2 Bangladesh Institute of Governance and Management (BIGM), Dhaka, Bangladesh 1207
3 Lecturer in Management, Bangladesh University, Dhaka, Bangladesh 1207
(E-mail: mmakjilani@bigm.edu.bd, sailluof@126.com, brupeen@gmail.com,

mdaftabuddin@cu.ac.bd)

ABSTRACT: Human values and affective traits were found to predict attitudes toward the use of different types of knowledge-based theory through creative climate. In this study (N =329), we aimed to gain a more comprehensive understanding of those predictors toward use in a structural equation model (SEM), providied a better overview of a possible structural path that drives to such antecedents for Small and Medium Enterprises (SMEs) in Bangladesh. Precisely, we predicted and found that the relations between the variables and impact of different variables were modeled and tested by applying SEM. Based on the questionnaires survey on SMEs in Bangladesh, this empirical study indicates that all the predictor variables significantly influence the endogenous variables except knowledge management (KM) and employee resilience (ER), and creative climate (CC) and organizational resilience (OR). The study provides several theoretical and practical implications for further research.

KEY WORDS: Creative climate; Knowledge management; Employee resilience; Organizational resilience

ACEITO EM: 01/07/2019

https://doi.org/10.23925/2179-3565.2019v10i1p138-145



RISUS - Journal on Innovation and Sustainability volume 10, número 2 - 2019

ISSN: 2179-3565

Editor Científico: Arnoldo José de Hoyos Guevara Editora Assistente: Lívia Lopes Aguiar

Avaliação: Melhores práticas editoriais da ANPAD

ESTUDO EMPÍRICO SOBRE OS ANTECEDENTES QUE PREVEEM A RESILIÊNCIA ORGANIZACIONAL DE PEQUENAS E MÉDIAS EMPRESAS EM BANGLADESH

Empirical study on the antecedents predicting organizational resilience of small and medium enterprises in bangladesh

Munshi Muhammad Abdul Kader Jilani^{1,2}, Luo Fan¹, Mansura Nusrat³, Md. Aftab Uddin¹

1 School of Management, Wuhan University of Technology, P.R. China, 430070 2 Bangladesh Institute of Governance and Management (BIGM), Dhaka, Bangladesh 1207 3 Lecturer in Management, Bangladesh University, Dhaka, Bangladesh 1207 (E-mail: mmakjilani@bigm.edu.bd, sailluof@126.com, brupeen@gmail.com, mdaftabuddin@cu.ac.bd)

RESUMO: Os valores humanos e os traços afetivos foram encontrados para prever atitudes em relação ao uso de diferentes tipos de teoria baseada em conhecimento através do clima criativo. Neste estudo (N = 329), objetivamos obter uma compreensão mais abrangente dos preditores para uso em um modelo de equações estruturais (SEM), proporcionou uma melhor visão de um possível caminho estrutural que leva a tais antecedentes para Pequenas e Médias Empresas. (PME) no Bangladesh. Precisamente, previmos e descobrimos que as relações entre as variáveis e o impacto de diferentes variáveis foram modeladas e testadas pela aplicação do SEM. Com base na pesquisa de questionários sobre PMEs em Bangladesh, este estudo empírico indica que todas as variáveis preditoras influenciam significativamente as variáveis endógenas, exceto a gestão do conhecimento (GC) e resiliência de funcionários (ER), clima criativo (CC) e resiliência organizacional (OR). O estudo fornece várias implicações teóricas e práticas para futuras pesquisas.

PALAVRAS-CHAVE: Clima criativo; Gestão do conhecimento; Resiliência de funcionários; Resiliência Organizacional

ACEITO EM: 01/07/2019

INTRODUCTION

In today's competitive environment, organizations enlarge globally and face a lot of contests to meet their objectives. To survive and contend successfully in the dynamic atmosphere, organizations require proactive work climate for performing at high standards to yield for long-run sustainability of the organization (Majeed, 2011). To keep in line with it, CC is the essential element to the long-term success and subsistence of

organizations. Ultimately, most managers realize that a productive workforce and climate will provide a global, sustainable and competitive advantage for a learning organization. On the same lines, KM has attracted individual responsibility of employees' (Li et al., 2013). Recently, researchers have paid interests in this arena because of its acute role displayed in the competitive business world as well as OR (Linnenluecke, 2017). Empirical studies imitated that the antecedents predicting creative climate are KM, ER, and OR which practically mentioned in several studies. Besides, resilience in organizations and among employees is relevant in any context which introduces challenges and transcends a post-disaster context (Näswall et al., 2015). This little adaptation capability is undoubtedly a matter for the development of organizations in the modern edge. However, the ability of a knowledgeable resource in any organization to learn faster than those in other organizations establishes the only sustainable competitive advantage at the disposal of a learning organization (Geus, 1988). It is the link between learning organization and the success in changing the environment. To address this issue, According to Denyer (2017), OR is required for businesses to respond to the interruptions as well as positively adapt in the face of challenging conditions, leveraging prospects and delivering sustainable performance improvement. By addressing these rationales, this study intends to figure out how CC, KM, and EM directly influence OR rather than CC and KM affect OR through ER.

THEORETICAL BACKGROUND AND HYPOTHESES SUBSTANTIATION

Impact of creative climate on the relationship between employee and organizational resilience Organizations need to shape a climate that stimulates creative climate. CC is the organizational appearances as perceived by its members (Ekvall, 1996). It also encourages people to generate new ideas and helps the organization to grow and increase its efficiency and at the same time it enables members to generate and implement creative ideas more effectively (Ekvall et al., 1983). Accordingly, OR is the ability of the organization to cope with modification through continuous replenishment of business operations to prevent deterioration and disuse (Scott, 2007). In today's rapidly-changing environment, ER is a critical resource for organizations. In this progress, ER plays a great role in this context (Näswall et al., 2013), as the definition of ER builds on the definition of OR, defined as —a function of an organization's overall situation awareness, management of keystone vulnerabilities, and adaptive capacity in a complex, dynamic, and interconnected environment. Therefore, the hypotheses of these relationships are:

- **H2.** Creative climate significantly predicts employee resilience
- **H4.** Creative climate has a positive impact on organizational resilience

Influence of knowledge management association with employee and organizational resilience

KM is one of the most important sources for the organization to achieve the sustainable competitive advantage and adaptation. Prior studies posited on developing resilience by focusing on individuals' knowledge and adaptability (Sutcliffe and Vogus, 2003), and self-enhancement skills and attachment style (Bonanno et al., 2002). In this connection, resilience in leaders has been shown to affect subordinates' and the organization's performance (Youssef, 2004). With the view in mind, KM as a strategy to manage organizational knowledge assets helps in management decision making, and enhances keenness and increase capacity for creative climate and innovation (Nowack et al., 2009). The process of KM, i.e., knowledge acquisition, distribution, interpretation and organizational retention, paves the way for enhanced organizational enactment (Lee and Choi, 2003) by solving the business hitches and exploring the potential growth opportunities. Nonaka (2007) mentioned that KM involves the acquisition, creation, and use of information for change that can culminate in innovation and, ultimately, organizational resilience (Hamel and Valikangas, 2003). To support this, Grant and Kinman (2012) also painted the inescapability of resilience for employees working in ardently challenging and different occupation. In this regard, to bridge this gap, we hypothesize:

- H1. Knowledge management has a positive effect on employee resilience
- H3. Knowledge management positive impacts organizational resilience
- H5. Employee resilience influences organizational resilience significantly

Relationship between creative climate and knowledge management

Basically, climate for creativity investigates how the prevailing workplace environment supports creativity of SMEs in Bangladesh. To achieve this, researchers and practitioners need to understand the influence and relationship of CC on knowledge management. A part of this, Service and Boockholdt (1998) concluded that CC is related to and has a major impact on psychological processes particularly in knowledge-base organization. Consequently, these components exert a direct influence on the performance and outcomes of individuals, working groups and the organization. Study conducted among managers of information technology in Malaysia revealed that organizational CC had a positive and significant impact on KM (Samad, 2010). Furthermore, it is often investigated that creative organizational learning is increased from knowledge process capabilities that create, transfer, and use knowledge (Malhotra, 2004), and the result of increased organizational creativity is improved organizational performance. Based on the preceding discussion, we propose the following hypothesis:

H6. Creative climate significantly predicts knowledge management

To emulate a clear demonstration of the present investigation, we developed a conceptual framework (Figure 1) based on insights gained from the prior studies.

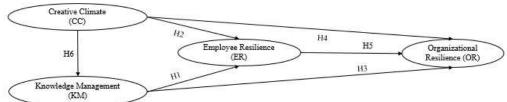


Figure 1 Conceptual Research Framework

RESEARCH DESIGN AND METHODOLOGY

Respondents' demographic features

Detailed demographic characteristic of the respondents has been reported below the table (1):

Table 1 Participants' Demographic Profile (N=329) Vari Catego Freq Vari Catego Freq ables ries uency ries uency Mal 252 77 Mast Gen Edu 7.0 der e Female cation er Others 05 2.0 3.0 24 8.0 Age Below 35 1 Ten Below 10 2 Years Above 35 86 7.0 Years Above 10 08 3.0 ure Years Years 1 1 7.0 43 3.0 21 Size Small 1 Medium 76 3.0 1 53 7.0

Survey instruments

A total of 480 questionnaires were delivered through the offline and online survey, but 343 responses were received. In the screening test, 13 responses were dropped out to address the issues of common method bias, missing data, outliers, and data normality. Survey instruments of creative climate (Kim and Yoon, 2015), knowledge management (Noruzy, Dalfard, Azhdari, Nazari-Shirkouhi, and Rezazadeh, 2013), employee resilience (Näswall et al., 2015) and Organizational resilience is adopted from Mafabi et al. (Mafabi et al., 2012) that consists of organizational competitiveness, organizational adaptiveness, and organizational value, were used in this research. Notably, a 5-point Likert scale has been used for the sake of uniformity in measuring the variables. The scales ranged from strongly agree (1) to strongly disagree (5). Microsoft Excel 2016, AMOS version-20, and IBM SPSS version-21 analytical tools were used to operate the data.

MEASUREMENT MODELS EVALUATION

Model specification with construct validity, reliability, and goodness-of-fit statistics Measurement model evaluation considers several issues to test the measures' authenticity. Fit indices, construct validity, and reliability were examined. With 38 manifest variables, the confirmatory factor analysis (CFA) did not yield a good output. Due to issues involved in the regression weights and items' loading, one item from CC, five items from ER, one item from KM, and five items from OR were deleted. Estimates on the CFA demonstrate a good fit (χ^2 /df =1.345, GFI = 0.912, RMR= 0.023, CFI = 0.969, TLI = 0.964, IFI=0.969, RMSEA = 0.032) (Hair Jr et al., 2014a). Convergent validity has been measured with average variance extracted (AVE) and composite reliability (CR). The table 2 reveals that all the criteria are above the threshold limit: minimum AVE=0.502 (0.50) and composite reliability=0.754 (>0.700). We also observed that the square root of the AVE of a construct is higher than its correlation with any other constructs. Thus, the convergent and discriminant validity results reports no concern on validity issues (Hair Jr et al., 2014b).

Table 2 Measurement Model'S Correlation Matrix, CR, AVE, and Descriptive Statistics

| | | | | | | | | | | | 0 | 1 |
|-------|--------|---------|--------|-------|-------|-------|--------|-----------|---------------|-------|-----------|-----------|
| | 1. Age | | | | | | | | | | | |
| | 2. | | - | | | | | | | | | |
| Gend | | .080 | | | | | | | | | | |
| | 3. ED | 166** | .009 | - | | | | | | | | |
| | 4. FS | | | - | | | | | | | | |
| | | 290** | .279** | 124* | | | | | | | | |
| | 5.Ten | 0.0.4** | | - | | | | | | | | |
| ure | | 824** | .120* | 212** | 356** | | | | | | | |
| | 6. CC | 009 | .061 | 057 | 120* | . 034 | .722 | (| | | | |
| | 7. OV | 007 | .001 | | 120 | | - 1 22 | (| (| | | |
| | | 001 | 088 | 042 | 159** | .004 | .281 | .747 | | | | |
| | 8. ER | 0.44 | - | - | - | | - | (| (| (| | |
| | 9. OC | .041 | .003 | .020 | 006 | .080 | .231 | .141 (| .718 (| (| 0 | |
| | 9.00 | 009 | .061 | 057 | 120* | . 034 | .308 | .457 | .104 | .708 | 0 | |
| | 10. | 00) | - | - | 120 | - | - | (| (| (| C | (|
| OA | | .008 | .021 | 055 | .092 | .015 | .266 | .248 | .315 | .218 | .710 | |
| T73.6 | 11. | 022 | | - 072 | 002 | | . 272 | (| (| (471 | (| (= 11 |
| KM | AVE | 032 | .033 | 072 | 082 | 016 | .372 | .361 (| .069 (| .471 | .171 (| .711 (|
| | AVE | | | | | | .845 | .898 | .81 | .801 | .835 | .754 |
| | CR | | | | | | | (| (| (| C | (|
| | | | | | | | .522 | .558 | .516 | .502 | .504 | .506 |
| | Mean | | | | | | | 4 | 3 | 3 | 4 | 3 |
| | | | | | | | .035 | .857 | .987 | .035 | .871 | .893 |
| | SD | | | | | | | | | | | |
| | | | | | | | 549 | 585 | 551 | 549 | 570 | 600 |

ED. Education, FS. Firms' size, CC. Creative climate, OV. Organizational value, ER. Employee resilience, OC. Organizational competitiveness, OA. Organizational adaptiveness, KM. Knowledge management, SD. Standard deviation. Scores in bold in the diagonal matrix represents the square root of the AVE of the construct. **. P < 0.01 level (two-tailed). *. P < 0.05 level (two-tailed).

Global structural model validation and fit analysis

Following the measurement model analysis, we have further evaluated the structured model to ensure the global fitness of it. The estimates on the fit indices, ($\chi^2/df = 1.378$, GFI = 0.907, AGFI = 0.864, CFI = 0.965, TLI = 0.961, NFI=0.911, RMSEA = 0.034), are found above the threshold limit (Hair Jr et al., 2014a). Hence, the globally accepted fit indices warrant the further analysis to test the preconceived hypotheses. In order to further strengthen the model's predictive relevance, we examined the coefficient of determination (R^2). The

result shows that the structural model explains 13.9% (R^2_{KM}), 5.3% (R^2_{ER}), and 45.4% (R^2_{OR}) change in KM, ER, and OR. The magnitude of R^2 ranges from weak to substantial but not insignificant according to the rule of thumb set by Cohen (Cohen, 1988).

RESULTS AND DISCUSSION

As depicted in table 3 represents the findings in the structural model coefficients' weight. In H1, we hypothesize that knowledge management is not significantly linked with the employees' resilience. The estimated result (β = -0.018, p<0.05) not supported. This result is found inconsistent with the findings of (Stephenson, 2010). The H2 reported that the creative climate reserves a significant influence on employees' resilience. In line with the hypothesis, the calculated results strengthen the proposition (β =0.237, p<0.01). Prior research results also supported the studied findings (Ekvall et al., 1983). The H3 proposes that knowledge management significantly predicts organizational resilience. The observed results unearthed that employees' engagement has a significant influence, β =0.507; p<0.05, on employees' resilience. The current findings are also found similar to the rest of the global findings (Mafabi et al., 2012). Again, H4 showed that creative climate is significant with organizational resilience. This estimated result is not supported (β = 0.244, p>0.05). The H5 and H6 reported that employee resilience and creative climate are also predicting the organizational resilience and knowledge management accordingly. On the same lines, the calculated results (β =0.159, p<0.01 for H4 and (β =0.337, p<0.01 for H5) strengthen the propositions.

| Hyp nesis | | Path Relations | | | | S -Stat. | T value | p. Deci sion | | |
|--------------|----|----------------|----|-------|------|-------------|------------|-----------------|-----------|--|
| H1 | | Е | < | K | - | 0 | 0 | 0. | Not | |
| | mR | | nM | 0.018 | .085 | .234 | 815 | | Supported | |
| H2 | | E | < | C | 0. | 0 | 3 | 0. | Supp | |
| | mR | | rC | 237 | .076 | .161 | 002 | | orted | |
| Н3 | | O | < | K | 0. | 1 | 1 | 0. | Supp | |
| | rR | | nM | 507 | .78 | .993 | 047 | | orted | |
| H4 | | O | < | C | 0. | 1 | 1 | 0. | Not | |
| | rR | | rC | 244 | .012 | .54 | 125 | | Supported | |
| H5 | | O | < | E | 0. | 0 | 1 | 0. | Supp | |
| | rR | | mR | 159 | .141 | .993 | 047 | | orted | |
| Н6 | | K | < | C | 0. | 0 | 5 | 0. | Supp | |
| | nM | | rC | 373 | .066 | .153 | 000 | | orted | |

Table 3 Path Analysis in a Structured Model

CONCLUSION

This study aims at finding the predictor variables of CC and KM in Bangladesh at different organizational units. The result shows that CC, ER, and KM significantly affect OR at different levels. Besides, CC, KM, and ER are also found to be significant predictors of OR. This result has some theoretical, academic and practical significance. Unlike many other studies, this study shows that KM is not significantly affecting ER and CC has an insignificant effect on OR which is a new direction for further research. Studies on CC, KM, and ER are relatively new; however, this study shows that they affect OR significantly. Therefore, professionals and practitioners require committing more resources on the adequate focus on KM and ER. Academics and researchers can do more research on KM practices, ER systems, and OR for further development. One of the limitations of this study is the sample size which is limited to generalize the universe. Also, moderation effect of demographic factors and mediating effects of above-considered variables mentioned in the structured model are apparently absent. Future studies suggested chalking out the mediating effect and moderating effect of third variables on the relationships between employee and organizational resilience.

REFERENCES

- [1] Majeed, S. The impact of competitive advantage on organizational performance [J]. European Journal of Business and Management, 2011,3(4): 191-196
- [2] Li, B, Zhang, J, and Zhang, X. Knowledge Management and Organizational Culture: An Exploratory Study. Creative and Knowledge Society [J], 2013,3(1): 65-77
- [3] Linnenluecke, M K. Resilience in business and management research: A review of influential publications and a research agenda [J]. International Journal of Management Reviews, 2017,19(1): 4-30
- [4] Näswall, K, Kuntz, J, and Malinen, S. Employee Resilience Scale (EmpRes) Measurement Properties [J]. Resilient Organizations Research Report, 2015,1-4
- [5] Geus, D A. Planning as learning [J]. Harvard Business Review, 1988,66: 70-74
- [6] Denyer, D. Organizational Resilience: A summary of academic evidence, business insights and new thinking [D]. 2017, BSI and Cranfield School of Management: United Kingdom
- [7] Ekvall, G. Organizational climate for creativity and innovation [J]. European Journal of Work and Organizational Psychology, 1996,5(1): 105-123
- [8] Ekvall, G, Arvonen, J, and Waldenström-Lindblad, I. Creative organizational climate: Construction and validation of a measuring instrument [M]. Swedish Council for Management and Organizational Behaviour, 1983
- [9] Scott, W R. Institutional theory: contributing to a theoretical research programme, in Great Minds in Management: The Process of Theory Development [M], Smith, K G and Hitt, M A, Editors. 2007,Oxford: New York, NY. 373-393
- [10] Näswall, K, et al.. Employee resilience scale (EmpRes): Technical report [J]. Resilient Organisations Research Report, 2013,(6)
- [11] Sutcliffe, K M and Vogus, T J. Organizing for resilience, in Positive Organizational Scholarship: Foundations of a new discipline [M], Cameron, K S, Dutton, J E, and Quinn, R E, Editors. 2003,San Fransisco: Berret-Koehler Publisher, Inc. 94-110
- [12] Bonanno, G A, et al., Self-enhancement as a buffer against extreme adversity: Civil war in Bosnia and traumatic loss in the United States [J]. Personality and Social Psychology Bulletin, 2002,28(2): 184-196
- [13] Youssef, C M, Resiliency development of organizations, leaders and employees: Multi-level theory building and individual-level [D], path-analytical empirical testing. 2004
- [14] Nowack, L et al. Knowledge management supporting education and research at a university cleanroom [J]. Knowledge Management Research & Practice, 2009,7(1): 100-112
- [15] Lee, H and Choi, B, Knowledge management enablers, processes, and organizational performance: An integrative view and empirical examination [J]. Journal of management information systems, 2003,20(1): 179-228
- [16] Nonaka, I. Knowledge management: theoretical and methodological foundations, in Great Minds in Management: The Process of Theory Development [M], Smith, K G A H, Editor. 2007,Oxford University Press: New York, 373-93
- [17] Hamel, G and Valikangas, L. The quest for resilience [J]. Harvard Business Review, 2003,81(9): 52-63
- [18] Grant, L and Kinman, G, Enhancing wellbeing in social work students: Building resilience in the next generation [J]. Social Work Education, 2012,31(5):605-621
- [19] Service, R W and Boockholdt, J L. Factors leading to innovation: A study of managers' perspectives [J]. Creativity Research Journal, 1998,11(4): 295-307
- [20] Samad, S. The role of creative organizational climate on learning organization-A key component of knowledge management. in Computer Engineering and Applications [C], 2010 Second International Conference on, 2010.IEEE
- [21] Malhotra, Y. Why knowledge management systems fail: enablers and constraints of knowledge management in human enterprises [H], in Handbook on Knowledge Management 1. 2004, Springer, 577-599
- [22] Kim, S and Yoon, G. An Innovation-Driven Culture in Local Government: Do Senior Manager's Transformational Leadership and the Climate for Creativity Matter? [J]. Public Personnel Management, 2015,44(2): 147-168

- [23] Mafabi, S, Munene, J, and Ntayi, J. Knowledge management and organisational resilience: Organisational innovation as a mediator in Uganda parastatals [J]. Journal of Strategy and Management, 2012,5(1):57-80
- [24] Hair Jr, J F, et al., Multivariate Data Analysis: A Global Perspective [B]. 2014, London: Pearson [25] Hair Jr, J F, et al., A primer on partial least squares structural equation modeling (PLS-SEM) [M]. 2014: SAGE Publications, Inc
- [26] Cohen, J, Statistical Power Analysis for the Behavioral Sciences [M]. 1988, Hillsdale, NJ: Lawrence Erlbaum Associates
- [27] Stephenson, A V, Benchmarking the resilience of organisations [J]. 2010