IMPACT OF INNOVATIVENESS ON OPERATIONAL PERFORMANCE OF GOVERNMENT LEVEL COMPANIES (GLCs) IN RURAL PAKISTAN: A MODERATING ROLE OF ORGANIZATIONAL CULTURE

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Abstract

Corporate Entrepreneurship is not a new topic in the field of management however there is a lack of literature on the strategy concerning the eastern side of the world. Therefore, several studies indicated the need of thorough research work on the topic from the eastern side, especially from the context of GLCs working in rural areas as these forms of firms, are not only away from corporate entrepreneurship but are also in need of strategies to deal with competition and external environment. Thus, in order to make the study pragmatically significant, the data has been collected from the top and middle-level managers of GLCs in rural areas of Pakistan. The results of the study indicated that innovativeness is perceived as an effective predictor of CE in GLCs in rural Pakistan. However, moderation of organizational culture is nullifying the perceived impact of innovativeness on the operational performance of the firms.

Key words: corporate entrepreneurship, innovativeness, GLCs in rural communities, organizational culture

INTRODUCTION

The field of corporate entrepreneurship (CE) is a well-established and significant field of research in the domain of management [35]. This is the process or entrepreneurial behaviour which resides inside the established mid-sized or large organizations [28] [20]. Similar has been indicated by [28] that CE is the entrepreneurial behaviour of employees whether of large or of a small organization.

The CE process is significant in adding value to the organization as well as to its customers through devising & implementing better and new ideas. Significance of the strategy is prevalent for the increase of organizational overall performance, financial betterment and attaining strategic benefits [20]; [8].

Similarly, there are also significant research evidences for the enhancement of financial and non-financial indicators through applying corporate entrepreneurship [42]; [43], [20]. Recent studies in this domain [2]; and [40]

also prove the same. One of the initial studies [30] indicated that CE is the hybrid of innovation, risk-taking and proactiveness. However, these parameters are also included in the contemporary model of CE along with new product development, new business venturing, competitive aggressiveness, selfrenewal, and strategic renewal [6]. Although innovation has been studied majorly as a characteristics of private sector organizations where organizational growth, development, productivity mainly linger upon and innovation & the phenomenon is not accepted as the predictor of growth and productivity in the public sector especially in rural context. This stance seems to be true as the threat of being exposed by media and opposition parties creates hindrance in the way of innovation by the public sector [25], whereas in rural context, the public sector organizations are deem to be passive and docile.

It has been mentioned by [15] that deprived, and socially disconnected people of underdeveloped economies are less inclined towards corporate entrepreneurship.

Therefore, there is a significant lacking of studies which might reveal the use of corporate entrepreneurship strategy on organizational performance. However, [8] indicated that the relationship of predictors like innovation, strategic-renewal and corporate venturing is not conclusive on the firm's performance.

On the other hand, [29] defined corporate entrepreneurship as "Innovation from an internal organizational perspective, through the assessment of potential new opportunities, alignment of resources, exploitation and commercialization of said opportunities". (p.354). The study further indicated that innovation as a process of corporate entrepreneurship might be able to provide a more significant edge to a firm's performance. Although public sector agencies are monopolies with no pressure to innovate but fostering of corporate entrepreneurship, activities might aid in organizational development and may also lead to economic development and wealth creation [5].

In contrast, public sector companies have more complex and open structures which fervently create hindrance to the process of innovation [25]. However, there are severe lacking studies on corporate entrepreneurship concerning public limited companies [6], especially in rural context. Moreover, it is apparent mainly when there is also a requirement of workable models on corporate entrepreneurship regarding government level companies of (GLCs) Pakistan [32]. Similarly, adoption and diffusion of innovation has mainly been researched previously in farm or agricultural context only and studies related to other sectors in rural context are limited. Therefore, this study will analyze the effect of innovation as the process of corporate entrepreneurship of performance of government level companies (GLC's) which perform in the rural setting of Pakistan. Theoretical Framework

Regardless of extensive studies regarding internal and external factors which are associated with corporate entrepreneurship the effectiveness of the concept is gauged through its impact on firm's performance [12]. Firm performance is a hybrid of organizational as well as individual behaviour [11] moreover non-financial performance is the effective predictor of organizational aspects, human aspects, and customer aspects. However, employees who are in favor of organized administration place zero value to corporate entrepreneurship, innovation, and creativity. Though getting a competitive edge is quite impossible without incorporating innovation and developing new product strategies create the base of entrepreneurship [38].

Hence, this study will evaluate the impact of innovation in GLCs in rural Pakistan on the perceived operational performance of the firm through the opinion of employees of the strategic (top) level. The top-level employees are the point of reference to support [22] that corporate entrepreneurship might be gauged through its staff level entrepreneurship, also supported by [40] through data collection from top executives only. On the other hand, [32] indicated that organizational culture is one of the most predominant tools for optimization of operational performance. Although state-owned firms are found to be significantly lacking in this regard [31]. Therefore, organizational culture is used as the moderating variable.

Literature Review

of Initially, the importance corporate entrepreneurship has been indicated by [38] who indicated that the strategy is fruitful for taking the competitive edge and optimizing financial performance. Although after that there is a continuous flow of studies emphasizing on the corporate entrepreneurship [14] as the strategy leads to entrepreneurial innovations across the firm i.e. from top management to first-line managers. Innovation is the process to add a fresh breath to work process, offerings of operating services and to principles so to provide value to company, customers, and suppliers [11].

To gain a competitive edge over rivals there is a need to introduce new product and technologies on continuous bases. This is the point where the most important element of corporate entrepreneurship came into play [3] i.e. innovativeness which describes the innovation in products and services through improving technology [38], which will growth increase profitability and [3]. However, innovation in the public sector is treated as a reason to foster conflicts and element to counter organizational values [25] e.g. work process and accountability [16]. On the other hand, since a long period of time studies like [36] is emphasizing on lack of flexibility in managers in the public sector. Similar has been supported by the [25] who indicated that reason for these lacking in innovation in the public sector is not treated as the predictor of organizational growth development and productivity.

Further clarified by [41] that public sector enterprises are large bureaucracies' structures which are focused on their core tasks and not permit in sort of disruption in their work and therefore resist any sort of change. On the contrary [14] indicated that innovation in GLCs is one of the most desirable elements as it not only improves the process of decision making but also has the ability to decrease market pressure and competition. However organizational culture is also an important tool to foster organizational performance.

One of the studies by [32] claimed that there is a significant relationship between organizational culture and organizational performance. The study also indicated that entrepreneurship prevails in the culture where the organization as a whole involved in the process of struggle or push. However, government sector organizations are found to be lacking in this domain. Therefore, efforts must be rendered through an increase of entrepreneurship in organizational through fostering an entrepreneurial culture in the GLCs [31]. This might be difficult as in GLCs most of the programs are managed by formal processes and programs [14]. Hence the study of [31] highlighted that most of the studied GLCs were lacking in organizational entrepreneurship. This is also highlighted by previous studies conducted in Metropolitan cities or urban context that formalization not only diminishes the process of innovation but also produces negative effects on communication process within the firm. Though formalization can foster efficiency in established processes of the firm and might specifically be significant in some forms of innovativeness [33].

Research Hypotheses

H₁**A:** There is no relationship between innovativeness (as the part of corporate entrepreneurship) in GLCs in rural Pakistan and operational performance of the firm.

H₂A: There is no moderation caused by the organizational culture of GLCs on the relationship between innovativeness and operational performance.

MATERIALS AND METHODS

This research study is descriptive in nature and the method of analysis is mono-method. Non-Probability Sampling was adopted to collect data survey from middle and top-level management from various offices from district Sindh of the Agriculture, Supply and Prices Department, Government of Sindh, Pakistan. The sample size of this study is 100. The questionnaire used in this study is a hybrid of several studies. This has been done to induce a level of understanding of respondents and also to produce effective results for robust applicability of study in rural context. The major contributors in this regard are [24] for elements on innovativeness; and [39] for organizational culture. Similarly, various other studies as [23] are incorporated to make a questionnaire more effective and applicable. In addition to these parameters study incorporated SMART PLS to analyze the effect of innovativeness on the operational performance of GLCs.

RESULTS AND DISCUSSIONS

Statistical Testing and Evaluations

The model which has been developed through reviewing and syntheses of literature is the reflective model as it is used to indicate the effect of innovative on operational performances of GLCs in rural context.

This is valid as per indications of the reflective model indicated by [1] and as per the study, there are few requirements for assessing reflective models. Table 1 is used to highlight the outer loading for each element in order to show their legitimacy in the model highlighting the effect of innovativeness on operating performance of the GLCs. However, the least acceptable value of outer loading is 0.708 as indicated by [19] to predict 0.50 of variance for each of its indicators. Though 0.60 is the least acceptable value for any variable to be included in the model [1] but the inclusion became more effective with the values getting closer to 1 [26]. However, in Table 1 the least value of outer loading for any element is 0.619 which indicates the elements used to develop model are effective enough to be included in the research model.

Table 1. Outer Loadings

	Innovative Process (Inn)	Moderating Effect 1	Organizational Performance (OP)	Operational Culture (OC)
Inn1	0.739			
Inn2	0.672			
Inn3	0.767			
Inn* OC		0.944		
OC1				0.919
OC2				0.908
OC3				0.668
OP1			0.619	
OP2			0.845	
OP3			0.887	
OP4			0.875	
OP5			0.834	

Source: Data Analysis of this Study.

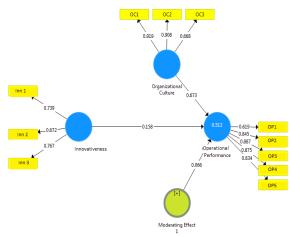


Fig. 1. Outer loadings of elements for the construct of Innovativeness on Operational Performance of GLCs. Source: Research Model generated for this Study.

Table 2 is used to indicate predictive accuracy through the value of R i.e. the prediction of the dependent variable through a change in the independent variable. Similar has been indicated by [7] that the purpose is to indicate predictive accuracy of a dependent variable through ordinary least square. The method of analysis for the test is the same as the method used to analyze regression [4], & 0.26 is the minimum value required for highlighting predictive accuracy [9].

Though 0.25 is the least acceptable value for indicating predictive accuracy while 0.5 and 0.75 or above are treated as moderate and substantive fit [21]. Here the value of R^2 0.497 is which indicates moderate fit between the independent and dependent variable and hence the predictive accuracy is appropriate enough to be linked with the study.

Table 2	2. Predictiv	ve Accuracy
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R Square		R	Square
		Adjusted	
0).512		0.497
	•	R Square 0.512	Adju

Source: Data Analysis of this Study.

Table 3 indicates the construct reliability through the use of reliability measures as Cronbach's alpha (α) and AVE. Moreover, a combination of composite reliability and AVE also highlight convergent validity.

The table is indicating all types of measures except outer loading (given in Table 1) to indicate model fit as α is lower-tier reliability evaluator and rho is a better predictor than Cronbach's alpha α [37].

Table 3.	Construct	Reliability	and	Validity
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	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Innovativeness	0.762	0.771	0.770	0.529
Moderating Effect 1	1.000	1.000	1.000	1.000
Operational Performance	0.872	0.888	0.909	0.669
Organizational Culture	0.778	0.772	0.876	0.705

Source: Data Analysis of this Study.

Table 4 is used to highlight discriminant validity through Heterotrait-Monotrait Ratio (HTMT), the purpose of discriminant validity is to indicate dissimilarity of variables from a single construct.

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This is highlighted through values of correlation [10] and the maximum value by which two variables of the same construct (model) can correlate with each other is 0.85 [18].

Table 4. DiscriminantValidityviaHeterotraitMonotraitRatio (HTMT)

	Innovative Process	Moderating Effect 1	Operational Performance	Org. Culture
Innovative Process				
Moderating Effect 1	0.154			
Op. Perf	0.463	0.139		
Org. Culture	0.393	0.300	0.831	

Source: Data Analysis of this Study.

Figure 2 and Table 5 are presented to indicate the impact of innovativeness on the performance of GLCs operating in Pakistan. The actual purpose of the table is to highlight inferential statistics so to clarify the impact and hence treated as one of the most important parts for the analysis of reflective models of SMART-PLS [17].

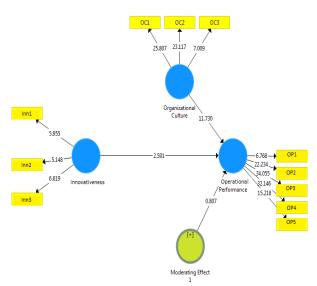


Fig. 2. Path Coefficients and regressions weights for the construct of Innovativeness on Operational Performance of GLCs.

Source: Research Model generated for this Study.

Table 5 uses t-statistics & p-values to clarify the impact. However, the minimal value of tstatistics to indicate the relationship is 1.97 & increase of value will also increase the degree of relationship [13]. However, the p-value must also be lesser than 0.05 for the existence of a relationship between variables [27].

Hence it is legitimate to declare corporate as the part of innovativeness entrepreneurship is perceived as the significant factor which may induce the operational performance of GLCs.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Innovativeness -> Operational Performance	0.158	0.163	0.061	2.591	0.010
Moderating Effect 1 -> Operational Performance	0.066	0.056	0.082	0.807	0.420
Organizational Culture -> Operational Performance	0.673	0.682	0.057	11.730	0.000

Table 5. Total Effects through Path Coefficient

Source: Data Analysis of this Study.

Similarly, organizational culture is also a potent variable which is perceived as the variable having a significant impact on the operational performance of the firm.

However, in GLCs the moderation of organizational culture is diminishing the impact of innovativeness. Therefore, it is appropriate to believe that innovativeness in GLCs is hindered due to organizational culture.

CONCLUSIONS

On the bases of statistical testing, it has been indicated that innovativeness in GLCs working in rural Pakistan is capable enough to affect the operational performance of the firm. Thus, the findings are coherent with [14] that innovativeness is one of the most effectual elements which might foster the operational performance of GLCs. Organizational Culture is also affecting the operational performance of GLCs which is consistent with [31] and [32].

However, when organizational culture impaired as a moderator then it diminishes the impact of innovativeness in GLCs. These findings are further found consistent with [31] and appropriate to believe the culture of GLCs is not supporting their ability to innovate. Therefore, looks consistent also with [14] as the work procedure in GLCs are too formal

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and thus might reduce their ability to innovate.

The study indicated that the culture of governmental companies is diminishing their ability to re-engineer and optimize their products and services [31], especially for GLCs in rural context which operate in remote settings and have lesser access to innovative resources.. This is the resultant of formal work practices in GLCs which may also worsen the process of communication [33].

Although the process of formalization prevents free communication within the members of the firms and hence reduces the chances to become adaptable with unforeseen problems [33]. However, the spread of COVID-19 requires firms to coordinate effectively for taking effective future initiatives & thus there is a need to assess organizational culture that how effective it is to deal with the crises [34]. Thus, government firms need to have valid and updated information in the communication process to increase adaptability and cohesiveness to embrace the emerging change in the organizational workplaces.

REFERENCES

[1] Afthanorhan, W. M. A. B. W., 2014, A hierarchical component using reflective-formative measurement model in partial least square structural equation (Pls-Sem). International modelling Journal of Mathematics, 2(2), 33-49.

[2] Ahmed, U., Shah, S. A., Qureshi, M. A., Shah, M. H., Khuwaja, F. M., 2018, Nurturing innovation performance through corporate entrepreneurship: The moderation of employee engagement. Studies in Business and Economics, 13(2), 20-30.

[3] Ambad, S. N. A., Wahab, K. A., 2016, The relationship between corporate entrepreneurship and firm performance: evidence from Malaysian large companies. International Journal of Business and Society, 17(2), 259-280.

[4] Andreev, P., Heart, T., Maoz, H., Pliskin, N., 2009, Validating formative partial least squares (PLS) models: methodological review and empirical illustration. ICIS 2009 proceedings, 193.

[5] Antoncic, B., Hisrich, R. D., 2004, Corporate entrepreneurship contingencies and organizational wealth creation. Journal of management development, 23(6), 518-550.

[6] Banda, P., Kazonga, E., 2018, The Effect of Public Sector Corporate Entrepreneurship on Organizational Performance in the Health Sector: A Case of Selected Public Hospitals in Lusaka, Zambia, IOSR Journal of Business and Management, 20(4), 8-18.

[7] Benitez, J., Henseler, J., Castillo, A., Schuberth, F., 2020, How to perform and report an impactful analysis using partial least squares: Guidelines for confirmatory and explanatory IS research. Information & Management, 57(2), 103168.

[8] Bierwerth, M., Schwens, C., Isidor, R., Kabst, R., 2015, Corporate entrepreneurship and performance: A meta-analysis. Small business economics, 45(2), 255-278.

Cheah, J. H., Memon, M. A., Chuah, F., Ting, H., Ramayah, T., 2018, Assessing reflective models in marketing research: A comparison between PLS and PLSC estimates. International Journal of Business and Society, 19(1), 139-163.

[9] Cheung, C. M., Lee, M. K., 2010, A theoretical model of intentional social action in online social networks. Decision support systems, 49(1), 24-30

[10] Covin, J. G., Slevin, D. P., 1991, A conceptual entrepreneurship model of as firm behaviour. Entrepreneurship theory and practice, 16(1), 7-26

[11] De Lurdes Calisto, M., Sarkar, S., 2017, Organizations as biomes of entrepreneurial life: Towards a clarification of the corporate entrepreneurship process. Journal Business of Research, 70, 44-54.

[12] Duarte, P., Amaro, S., 2018, Methods for modelling reflective-formative second-order constructs in PLS. Journal of Hospitality and Tourism Technology 9(3), 295-313.

[13] Entebang, H., Harrison, R. T., 2019, Corporate Performance: Entrepreneurship Findings from Government-Linked Companies in Malaysia. Journal of Public Administration and Governance, 9(4), 248-264.

[14] George, G., Kotha, R., Parikh, P., Alnuaimi, T., Bahaj, A. S., 2016, Social structure, reasonable gain, and entrepreneurship in Africa. Strategic Management Journal, 37(6), 1118-1131.

[15] Goodsell, C. T., 1993, Reinvent government or rediscover it? Public Administration Review, 53 (1) (January/February), 85-86.

[16] Hair, J. F., Risher, J. J., Sarstedt, M., Ringle, C. M., 2019, When to use and how to report the results of PLS-SEM. European Business Review. 31(1), 2-24.

[17] Hair Jr, J. F., Sarstedt, M., Ringle, C. M., Gudergan, S. P., 2017, Advanced issues in partial least structural squares equation modelling. sage publications.

[18] Hair, J. F., Sarstedt, M., Ringle, C. M., Mena, J. A., 2012, An assessment of the use of partial least squares structural equation modelling in marketing research. Journal of the academy of marketing science, 40(3), 414-433.

[19] Heavey, C., Simsek, Z., 2013, Top management compositional effects on corporate entrepreneurship: The moderating role of perceived technological uncertainty. Journal Innovation of Product Management, 30(5), 837-855.

Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development Vol. 20, Issue 4, 2020

PRINT ISSN 2284-7995, E-ISSN 2285-3952

[20] Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., ... Calantone, R. J., 2014, Common beliefs and reality about PLS: Comments on Rönkkö and Evermann (2013). Organizational research methods, 17(2), 182-209.

[21] Ireland, R. D., Webb, J. W., 2009, Crossing the great divide of strategic entrepreneurship: Transitioning between exploration and exploitation. Business Horizons, 52(5), 469-479.

[22] Ireland, R. D., Kuratko, D. F., Morris, M. H., 2006, A health audit for corporate entrepreneurship: innovation at all levels: part II. Journal of Business Strategy, 27(2), 21-30.

[23]Karacaoglu, K., Bayrakdaroglu, A., San, F. B., 2013, The impact of corporate entrepreneurship on firms' financial performance: Evidence from Istanbul Stock Exchange Firms. International Business Research, 6(1), 163-176

[24] Kearney, C., Hisrich, R., Roche, F., 2008, A conceptual model of public sector corporate entrepreneurship. International Entrepreneurship and Management Journal, 4(3), 295-313.

[25] Khan, G. F., Sarstedt, M., Shiau, W. L., Hair, J. F., Ringle, C. M., Fritze, M. P., 2019, Methodological research on partial least squares structural equation modelling (PLS-SEM). Internet Research, 29(3), 407-429

[26] Kock, N., Hadaya, P., 2018, Minimum sample size estimation in PLS-SEM: The inverse square root and gamma-exponential methods. Information Systems Journal, 28(1), 227-261.

[27] Kuratko, D. F., Morris, M. H., Covin, J. G., 2011, Corporate innovation and entrepreneurship. South-Western Cengage Learning Australia, United States.

[28] McFadzean, E., O'Loughlin, A., Shaw, E., 2005, Corporate entrepreneurship and innovation part 1: the missing link. European journal of innovation management.

[29] Miller, D., 1983, The correlates of entrepreneurship in three types of firms. Management Science, 29(7), 770-791.

[30] Moghaddam, J. Y., Khorakian, A., Maharati, Y., 2015, Organizational Entrepreneurship and its Impact on the Performance of Governmental Organizations in the City of Mashhad. Procedia-Social and Behavioral Sciences, 169(20), 75-87.

[31] Nayyar, J., Mahmood, R., 2014, The effect of corporate entrepreneurship determinants on the performance of public higher education institutions in Pakistan. Business & Entrepreneurship Journal, 3(1), 19-31

[32] Nayir, D. Z., Tamm, U., Durmusoglu, S. S., 2014, How formalization hinders different firm innovativeness types: Opening the black box with evidence from a service industry. International Journal of Innovation and Technology Management, 11(05), 1450029.

[33] Pedersen, C. L., Ritter, T., 2020, Preparing yourbusiness for a post-pandemic world. Harvard BusinessReviewDigitalArticles,

https://hbr.org/2020/04/preparing-your-business-for-a-post-pandemic-world, Accessed on Aug. 20, 2020.

[34] Phan, P. H., Wright, M., Ucbasaran, D., Tan, W. L., 2009, Corporate entrepreneurship: Current research and future directions. Journal of Business Venturing, 24(3), 197-205.

[35] Rainey, H. G., Backoff, R. W., Levine, C. H.,
1976, Comparing public and private organizations. Public administration review, 36(2), 233.
[36] Ravand, H., Baghaei, P., 2016, Partial least squares structural equation modelling with R. Practical Assessment, Research, and Evaluation, 21(1), 1.

[37] Schollhammer, H., 1982, Internal corporate entrepreneurship. Encyclopedia of entrepreneurship, 209, 223.

[38] Sebora, T. C., Theerapatvong, T., 2010, Corporate entrepreneurship: A test of external and internal influences on managers' idea generation, risk-taking, and proactiveness. International Entrepreneurship and Management Journal, 6(3), 331-350.

[39] Umrani, W. A., Kura, K. M., Ahmed, U., 2018, Corporate entrepreneurship and business performance. PSU Research Review, 2(1), 59-80

[40] Wilson, J. Q., 2019, Bureaucracy: What government agencies do and why they do it. Basic Books, Hachette UK.

[41]Zahra, S. A., Covin, J. G., 1995, Contextual influences on the corporate entrepreneurship-performance relationship: A longitudinal analysis. Journal of business venturing, 10(1), 43-58.

[42] Zahra, S. A., Garvis, D. M., 2000, International corporate entrepreneurship and firm performance: The moderating effect of international environmental hostility. Journal of business venturing, 15(5-6), 469-492.