

CORPORATE ENTREPRENEURSHIP AND INNOVATION PERFORMANCE OF MANUFACTURING SMES IN PAKISTAN : THE MEDIATING ROLE ORGANIZATIONAL SUPPORT

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Abstract

The main purpose of the current study is to investigate the relationship between the corporate entrepreneurship and innovation performance. The research has assured that corporate entrepreneurship activities and encouragement from the firm regarding these actions play a significant role in the organizational performance in Pakistan and other various countries that followed the same change-over cycle. The significant consideration has been offered to the association between performance and corporate entrepreneurship. The study is carried out on the sample of manufacturing SMEs in Pakistan, and 63% response rate is obtained from 315 valid questionnaires. Smart PLS-3 is employed for estimating outer loadings and path coefficients using correlational and multiple regression analyses. The results of the study are in line with the proposed results. The findings indicate that The firms are now required to be innovative with the developing advanced technologies, fragmentation of the markets, globalization, and simultaneously efficient towards having a proactive approach in preparation for its rivals. Additionally, these firms may grab the opportunities and compel assets into new projects with an undetermined outcome to protect efficient performance. The study will be helpful for policymakers and practitioners in understanding the issues related to corporate entrepreneurship, innovation performance and organizational support.

Keywords: corporate entrepreneurship, innovation performance, organizational support , SMEs, Pakistan

1.0. Background

The entrepreneurship is the most important part of for the innovation atmosphere at both (corporate and individual) levels (Hoque, Gwadabe, & Rahman, 2017). Poponi, Arcese, and Mosconi (2020) has suggested that now a days most of the firms and organizations are vigorously motivated to become a progressive entrepreneurial. In last thirty years they have figured out and shaped a huge wave because according to different advantages are linked with corporate entrepreneurship (CE). In addition to this according to the literature many scholars have stated that the innovation performance (IP) is linked with entrepreneurial activities (Hoque et al., 2017; Kunapalan, Ismail, & Yatiban, 2020; Minafam, 2017). In contrast Asabi (2018) has stated that this claim is not supported by the available literature. The Corporate

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entrepreneurship is deemed important not only because of its business outlines for acquiring a strong position in competitive market but it helps in increasing the level of production which is a value addition towards the economy as well (Kunapalan et al., 2020; Minafam, 2017). Sinha and Srivastava (2016) has stated that IP will occur only when organizations or firms will start vigorous, responsive use entrepreneurial energy of their staff.

The scholars stressed on the importance of disparity in terms of freedom of their own opinion and decision making during their work, as it brings the capabilities among employees as it develops and enhances their potential also it brings creativity and innovation during the development and improvement of business plans which would ultimately support to enhance growth and competitive advantage in business. Those enterprises that encourage the entrepreneurial culture have specific methods regarding work patterns which has a significant role during the development of competitive advantage. Various research work stressed on the variables that are evident in the entrepreneurial behavior of the company which consists of risk-taking, innovativeness, and pro-activeness (Ahmed, Shah, & Qureshi, 2018).

Furthermore, the empirical research work also highlighted the culture of corporate entrepreneurship which is thoroughly associated with business revenues such as organizational performance, growth, profitability, expansion, and innovative performance as well (Ahmed et al., 2018; Hoque et al., 2017; Kunapalan et al., 2020; Minafam, 2017; Yeniaras & Unver, 2016). Thus, this research work leads towards the direction which goes to examine these association in fewer research areas for examples, the emerging and developing countries specifically in Bangladesh. In business, this research work goes to add in the earlier research literature by discovering the part of the company's innovative performance by the corporate entrepreneurship. According to this concept, initially, the factors and conceptual model are explained according to the previous research literature. Afterward, the results show and documented the achievements with a few future studies and recommendations.

2.0. Litertaure Review

2.1. Corporate Entrepreneurship

Corporate entrepreneurship is known as the activities that are taking place for entrepreneurship inside the currently operating company. Corporate entrepreneurship is not considered as the establishment of new business concepts specifically, but it also refers to the orientations and innovative activities, that include, for example, the use of technological advancement, development of innovative products, better administrative techniques, development of new services, competitive positioning, and related strategies. The three most prominent components at a company level entrepreneurial activities are process innovation, product/service, and venture formation.

Primarily, the latest projects such as the development of further semi-autonomous or formally autonomous companies or units, which are generally considered as internal venturing, incubative entrepreneurship, corporate start-ups, new streams, autonomous business unit creation, corporate venturing, and venturing activities (Hoque, 2018; Valencia, Montoya, & Montoya, 2018).

Second and third, product or service and innovation of process are considered to the innovation of product and service which highlighted the innovation and development in technology. According to the various scholars, corporate entrepreneurship consists of frequency and extensiveness of product innovation,

new product development, the related tendency of technological leadership, product improvements, enhancement or development in product and services, strategies and technologies in production as well as new production methods and procedures (Cho & Lee, 2018).

The researchers Yeniaras and Unver (2016), claimed that for enhancement of their productivity as an operational asset and stimulating company the researchers and senior administrators keenly monitor the corporate entrepreneurship (CE). On the other hand, Kuratko and Hoskinson (2018) argued that corporate entrepreneurship (CE) is considered in such a condition in which the companies perform in entrepreneurial methods, relatively to the other individual or unit strategic business. Corporate entrepreneurship (CE) is a general method through which the group of people or individual at a job, starts with creativity, renovate, and restart inside the business (Hoque, 2018).

It can be stated with surety that corporate entrepreneurship (CE) would be of significant importance for improvement, enduring the current companies, and developing them as more gainful outcomes (Kuratko & Hoskinson, 2018). The analysis of the famous research framework that good encouragement is needed inside the company to structure the corporate entrepreneurial ecosystem.

Ahmed et al. (2018), claimed that various encouraging variables in companies perform a significant role in the context such as motivation, management support, risk-taking propensity for the development of the intrapreneurial environment, resources, and organizational structure. In the same way, the researchers Ahmed et al. (2018) highlighted that managerial and organizational encouragement play a significant role to improve entrepreneurial activities.

In the same way, the research work by Dzomonda and Fatoki (2019) highlighted the encouragement by the company, which is a significant variable that contributes to this context and it recommends and motivates the worker's opinion and morals regarding the entrepreneurial approach of the company. Furthermore, Ahmed et al. (2018), recommended that greater the individual engagement would be towards innovative work behaviors, flexible organizational horizons, a greater degree of individuals' opinions on the responsive availability of management support, resources for work, and innovation discretion. Thus, Hoque (2018) argued that CE is a group of strategies developed by the recognized company for development by themselves and in encouraging growth.

In an enterprise's success, Corporate entrepreneurship (CE) is considered as a significant variable. Futterer, Schmidt, and Heidenreich (2018) argued that corporate entrepreneurship (CE) is a method which takes place inside the enterprise, not only develop new ventures but also its size, it indicates the further advanced activities such as new competitive states, new product or service development, new executive methods and new technology.

By the perception and targets of corporate entrepreneurship, the scholars and specialists refer corporate entrepreneurship as a multidimensional perception which includes the strategic renewal, proactive approach, innovativeness, new business venturing, and risk-taking (Futterer et al., 2018; Khan, Hassan, & Arshad, 2020). The recent research work has five dimensions of corporate entrepreneurship which have been stated as strategic renewal, innovativeness, new business venturing, risk-taking, and proactiveness.

2.2. Innovation Performance (IP)

Bello (2017) claimed that innovation performance is as promotion, the realization of innovation prospects to benefit organization, individual or group at large, and generation. Certainly, the innovation performance is defined as the result of a company's innovation determinations and all the inputs which has been considered as a significant perception for state-of-the art companies permanently (Minafam, 2017). Furthermore, innovative IP is significant to the overall consideration of the learning perceptions, innovation inside the companies as well as creativity (Hoque et al., 2017). The reason is that the scholars analyze that IP variants generally everywhere in the industry and organizations sectors. There are various degrees to estimate the IP and the economic findings of innovative services or products. On the other hand, the existing research work stated that various managerial variables have been associated with the innovation output in innovative businesses (Minafam, 2017).

3.0. Hypothesis Development

The significant consideration has been assumed regarding the association between performance and corporate entrepreneurship (CE). Various scholars claimed that corporate entrepreneurship (CE) could boost the company's collective outcomes (Cho & Lee, 2018; Gupta & Dutta, 2016; Idiaro, 2019; Khan, 2018; Patrick, 2017; Perlins, García, & Araque, 2017). Corporate entrepreneurship (CE) also tends to move towards competitive benefits and is a component of an efficacious company (Covin & Wales, 2019). Corporate entrepreneurship (CE) indicates the findings of diversified markets and products and develop as an instrumental towards developing inspiring economic outcomes (Strobl, Bauer, & Matzler, 2020).

Corporate entrepreneurship (CE) acts as an indicator of small companies' growth (Cho & Lee, 2018). In the same way, positive and significant associations were established among the risk-taking, innovativeness, dimensions of CE, proactive approach for its performance (Choi & Williams, 2016; Khan, 2018; Patrick, 2017). Currently, the firms are required to be advanced along with the development of the latest technologies, fragmentation of the markets, globalization, and simultaneously constantly be proactive in advance of rivals.

Additionally, these firms might grab opportunities and compel assets into projects with indeterminate results concerning protected efficient performance. To elaborate further on the association and as per the existing research study, the following hypothesis is presented. Innovation performance and corporate entrepreneurship are a significant problem for any organization which tries to participate in this competitive entrepreneurial world economy. General research work regarding corporate entrepreneurship has highlighted the elements of the organization that impacts internally regarding corporate entrepreneurship which tends to bring change through an innovative company's performance (Ahmed et al., 2018; Bello, 2017; Yeniaras & Unver, 2016).

Ahmed et al. (2018) highlighted the positive opinion regarding inside variables of corporate entrepreneurship which tends to produce various outcomes of performance such as performance innovation. In the same way, the research work by Bello (2017) reported that the opinion from workers side the organization regarding numerous variables regarding the job of a company could enable workers to anticipate the innovation performance. The scholar claimed that it is very critical for the firm to takes the exact components inside the business to highlight corruption and acknowledge the significant entrepreneurial vision regarding workers.

Hoque et al. (2017) argued that the workers who recognize and support the encouraging about resources for entrepreneurial activities, management support, often found showcasing innovation behaviors, discretion at work, and time availability. The research survey conducted on firms with the sample size for research of 177 firms reported that the inside variables of corporate entrepreneurship can significantly increase the company's innovation performance. Rodríguez, Montes, and Fernández (2018) recommended that the entrepreneurial and entrepreneurship condition inside the firm play a significant role in worker's encouragement to increase productivity and taking creative vision at a job.

Conclusively, this research work highlighted that workers with suitable assets or visions (such as awareness regarding organizational boundaries, management support, rewards, availability of time, and discretion in their work) can perform efficiently at work to engage in innovation visions hence, it encourages the company's innovation performance. Currently, few researchers claimed the association among IP and CE who stated that the relationship is highly significant in these sequences of circumstances. Therefore, this problem is not addressed in emerging or developing countries (Kuratko & Hoskinson, 2018). Henceforward, this research study presented the first hypothesis as follows:

H1: There is a significant association between the company's innovation performance and corporate entrepreneurship.

The mediating role of Organizational Support

Corporate entrepreneurship is expected to be associated with a better firm's performance, generally in the form of profitability and growth (Cho & Lee, 2018). Earlier research studies have stated further suggestions for the association of corporate entrepreneurship towards a firm's growth. One of the significant components of a firm which is very helpful for corporate entrepreneurship is a management and organizational motivation regarding entrepreneurial accomplishments. This encouragement consists of support, top management involvement, the rewarding and staffing of venture activities, commitment, encouragement, and style (Valencia et al., 2018).

The motivation from the firm has been observed as a significant originator of corporate entrepreneurship. Particularly supports in the form of trusting and training individuals inside the organization to identify the opportunity in the form of resource availability which has been stated to have a positive impact on organizational entrepreneurial behavior and activities (Covin & Wales, 2019). Futterer et al. (2018) have highlighted the empirical findings for these associations. The scholars also claimed about positive association among performance (growth and profitability) and intrapreneurship.

This research work recommends that corporate entrepreneurship would perform like a moderator in the firm's association between performance and support. According to the earlier research literature, the precise role of corporate entrepreneurship as a mediator in the firm's association between performance and support has not been investigated empirically in an appropriate way. According to the findings of the structural equation model, Futterer et al. (2018) claimed a coefficient of a direct link among performance components that are not tested based on mediation and organizational support. Mediation that occurs might be in one of three substitutional kinds which were explained by the researchers'. The first alternative type is a dominant or single mediator.

According to these circumstances, the direct association among the outcome variable and the independent variable is considered as null, on the other hand, the outcome factor is compressed by the moderator. The potent mediator is the second substitutional form. According to these circumstances, the outcome factor is also compressed by the moderator but the association among the outcome factor and the independent factor is not considered as null, thus, it shows the execution of numerous mediating variables. In the case of a mediator which is referred to as potent, the way should be decreased significantly from the independent factor towards the outcome factor through the mediator outline. If the path is not decreased significantly then the third alternative mediator is considered in the form of a non-potent mediator. The study regarding corporate entrepreneurship which was discussed in the earlier discussion would recommend that entrepreneurship could be referred to as a significant mediator in the firms association among performance and support but it is not recognized as an ideal alternative among the potent moderation form and dominant for this purpose, the two alternative hypotheses are stated as:

H2: Organizational support has significant impact on the innovation performance.

H3: Organizational support mediates the relationship between the corporate entrepreneurship and innovation performance.

4.0. Methodology

For data screening process, the Statistical Package for Social Sciences (SPSS-22) was employed in this study, which is then further used to perform the statistical analysis. The statistical analysis of the data helps in answering the proposed research questions in the study. Statistical data analysis involves descriptive and the inferential analyses of the data. Therefore, both these analyses were performed in this research. In current research, a 7-point Likert scale was adopted and was sub-categorized in terms of mean values, as previously done by Henseler, Hubona, and Ray (2016). According to this categorization, 1.00 – 2.20 range represents very low mean value, 2.21 – 3.40 represents low mean value, 3.41 – 4.60 represents moderate mean value, 4.61 – 5.80 represents high mean value and 5.81-7.00 represents very high mean value. The Smart PLS 3.1.2 software was then employed for testing the research hypotheses, and for assessing the validity and reliability of the measures to estimate the measurement and the structural models. Data collection is done by conducting a survey and 500 questionnaires were distributed during the survey process and received 350 questionnaires from the survey. From the received questionnaires, 45 were omitted from the data due to missing information. Thus, 63% response rate is obtained from 315 valid questionnaires.

Following Hair, Hult, and Ringle (2016) recommendation, Smart PLS-3 is employed for estimating outer loadings and path coefficients using correlational and multiple regression analyses. PLS-3 is generally used to bootstrap data set or for estimating the AVE (average variance extracted). It is suggested that PLS-3 can be employed in case of complex models, for instance models with multiple second order constructs as in present research. Therefore, PLS-3 seems ideal for current research (Ong & Puteh, 2017). In addition, the items involved in this study are reflective and formative, therefore, it is important to employ this software, since it is capable of handling complex models (Hair, Matthews, Matthews, & Sarstedt, 2017). Besides, PLS-3 is appropriate because it can handle the measurement errors considerably well. This study also performed statistical evaluation of the model to analyze the nature of association among the variables (Hair et al., 2016). Hence, to confirm the relationships among variables and to estimate the variables, PLS is

employed in this research. Furthermore, the study also performed the performance matrix analysis using PLS.

5.0. Results

The PLS-SEM involves two steps, the measurement model estimation and the structural model estimation. The outer or measurement model assesses the relationship between the latent and the observed variables (Hair et al., 2016). To estimate measurement model, the present study observed some key measures, including internal consistency reliability, convergent validity, construct validity, and discriminant validity. To ascertain items reliability and construct validity (convergent & discriminant validity), the confirmatory factor analysis (CFA) is performed. The reliability test ascertains the consistency of the instruments. However, it is the validity test which determines the ability of an instrument to estimate a particular construct (Hair et al., 2017; Richter, Cepeda, & Roldán, 2016). Thus, the items reliability is assessed by calculating each constructs' outer loadings, and the recommended range for each item loading is 0.70 or above (Henseler et al., 2016), and below 0.3 outer loadings are referred as poor loadings (Naala, Nordin, & Omar, 2017). On the other hand, Hair et al. (2016) states that the outer loading value for each construct must be above 0.30.

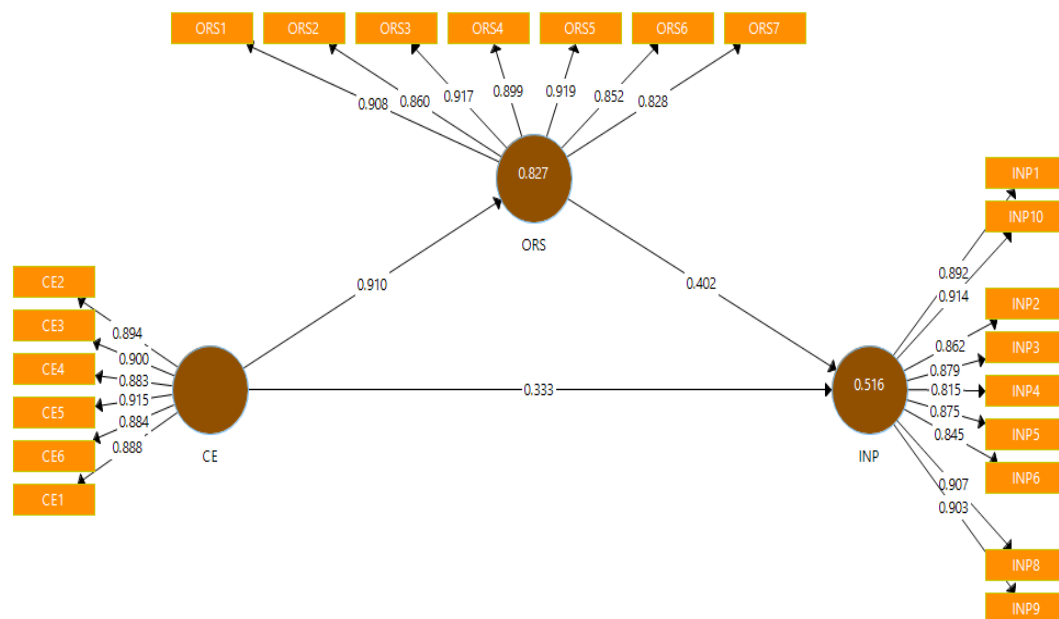


Figure 1: Measurement Model

Table 1: Outer Loadings

	CE	INP	ORS
CE1	0.888	0.606	0.833
CE2	0.894	0.633	0.775
CE3	0.900	0.590	0.820
CE4	0.883	0.615	0.769
CE5	0.915	0.687	0.856
CE6	0.884	0.611	0.821
INP1	0.624	0.892	0.611
INP10	0.653	0.914	0.680
INP2	0.598	0.862	0.593
INP3	0.633	0.879	0.620

INP4	0.572	0.815	0.540
INP5	0.587	0.875	0.599
INP6	0.553	0.845	0.551
INP8	0.661	0.907	0.684
INP9	0.623	0.903	0.666
ORS1	0.831	0.640	0.908
ORS2	0.781	0.546	0.860
ORS3	0.822	0.653	0.917
ORS4	0.815	0.612	0.899
ORS5	0.813	0.660	0.919
ORS6	0.777	0.645	0.852
ORS7	0.786	0.597	0.828

Furthermore, composite reliability (CR) value is then computed followed by the average variance extracted values, where $CR > 0.70$ is needed for adequate reliability of the instruments. Meanwhile, average variance extracted (AVE) is described as the shared variance between the indicators. The recommended range for AVE is 0.50 or above (Hair et al., 2016; Hair et al., 2017; Henseler et al., 2016; Ong & Puteh, 2017). For present study, the AVE ranges from 0.512-0.834, which confirms the convergent validity.

Table 2: Reliability Analysis

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
CE	0.950	0.950	0.960	0.799
INP	0.962	0.965	0.968	0.770
ORS	0.953	0.954	0.961	0.781

Convergent validity shows the extent that measures that are theoretically linked remain linked after statistical analysis. For convergent validity, the Cronbach alpha test is performed, and the suggested value for Cronbach alpha coefficient is 0.70 or above (Mahmood, Hussan, & Basheer, 2016; Shiau, Sarstedt, & Hair, 2019). Thus, adequate convergent validity is said to be achieved when outer loadings exhibit 1.96 or above value at 5% level of significance. Once the reliability and validity of measurement model are ascertained, the next step is the structural model estimation.

Table 3: Validity

	CE	INP	ORS
CE	0.894		
INP	0.798	0.877	
ORS	0.710	0.705	0.884

The discriminant validity test shows whether a particular construct is distinct from the rest of the measures. The discriminant validity confirms the construct validity by calculating the square roots of AVE and comparing these values with the correlations among the latent constructs. For AVE, 0.50 is the threshold level. However, for discriminant validity, the AVE square roots are expected to exhibit values greater than correlation values.

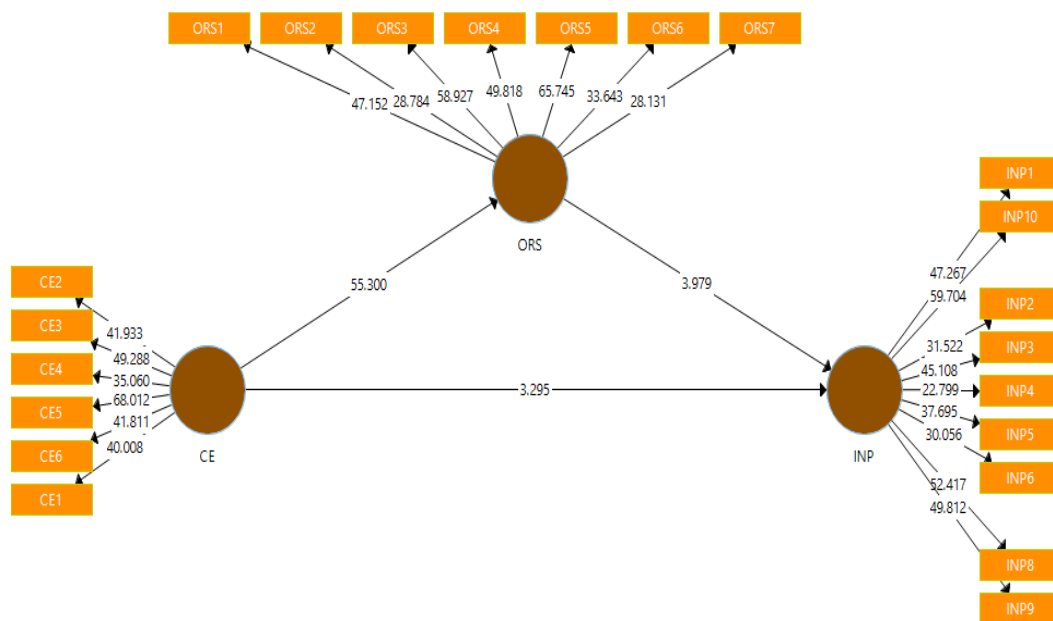


Figure 2: Structural Model

Under structural model estimation, the multicollinearity test is performed followed by the testing of proposed hypotheses in this study. The testing of hypotheses is done by calculating the t-values and path coefficients. For this purpose, a bootstrapping method is performed to determine the path coefficients' significance and to ascertain the proposed relationship among the variables. To carry out bootstrap method, 5000 bootstrap samples were employed. Henseler et al. (2016) recommends that 200-1000 is the sufficient range for bootstrap samples which is necessary to obtain adequate standard error estimates.

Table 4: Reression results (Direct)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
CE -> INP	0.698	0.700	0.066	10.663	0.000
CE -> ORS	0.910	0.910	0.016	55.300	0.000
ORS -> INP	0.402	0.407	0.101	3.979	0.000

Table 5: Rgression Results (Mediation)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	TStatistics (O/STDEV)	P Values
CE -> ORS -> INP	0.365	0.371	0.094	3.886	0.000

The coefficient of determination or R-square value is a good estimate for inner or structural model estimation (Hair, Sarstedt, & Ringle, 2019; Hameed, Waseem, & Dahri, 2020). The R-square value for endogenous construct describes how much proportional variance in endogenous construct is described by the set of exogenous

constructs in the model, and thus provides the model strength. R-square is referred as small, medium and large depending on the R-square values, i.e. 0.19, 0.33 or 0.67, respectively (Hameed, Nawaz, Basheer, & Waseem, 2019; Shiao et al., 2019).

Table 6: R-Square

	R Square
INP	0.516
ORS	0.827

Finally, to measure the quality of the measurement model, the model's predictive relevance test is performed (Hafeez, Basheer, & Rafique, 2018; Hair et al., 2019). For model's predictive quality, a cross-validated redundancy measure (Q^2) is generally used, which is a sample re-using technique.

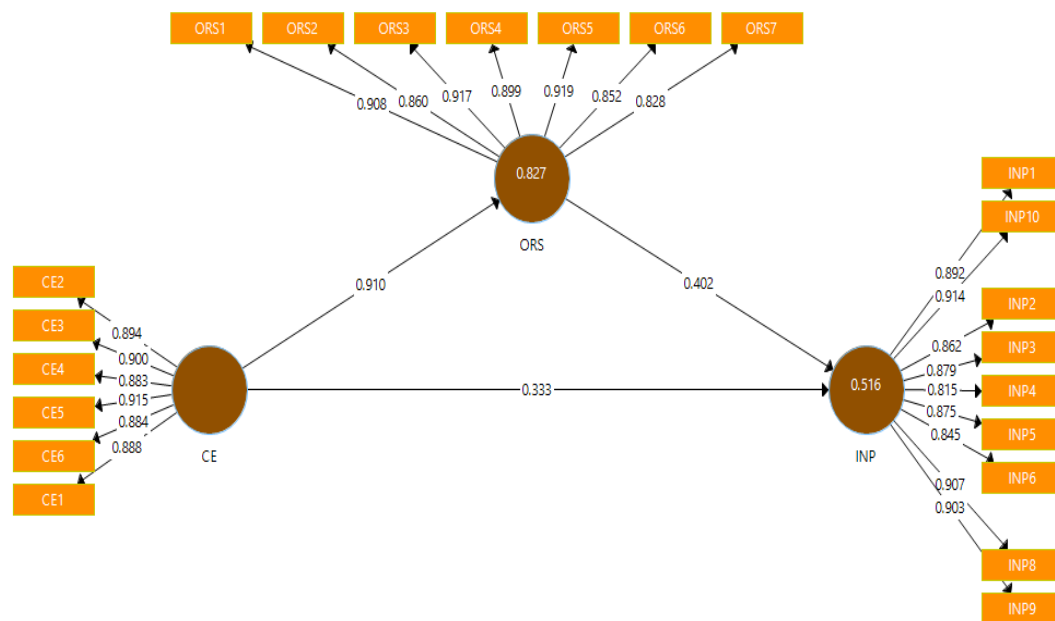


Figure 3: Blindfolding

This technique requires Q^2 value to be non-zero or greater than 0 to represent that model has some predictive relevance. The predictive relevance test is carried out in PLS-software using a blindfolding method. During parameters estimation, some cases were omitted during the analysis as the missing values (Hair et al., 2016; Henseler et al., 2016; Mikalef & Pateli, 2017).

6.0. Concluision

The research work highlighted that flexibility, innovation supports in projecting the corporate entrepreneurial values of the firm, management support, positive perception, and resource provision for creativity can find a significant outcome in innovation performance. In the same way, the research work highlighted that corporate entrepreneurship can especially increase the worker's wellbeing regarding a job, thus, consequently as employee engagement. Therefore, with few efficient empirical pieces of evidence, it can prove through the information of this research, the literature also suggests that the association between innovation performance and corporate entrepreneurship does not mediate with employee engagement. Thus, the scholars who research in the later period may target on employee engagement as a mediating factor, however, they focus on industry-level innovation performance as

well to evaluate that if sectors with an advanced degree of corporate entrepreneurship appreciate advanced innovation performance or vice versa.

The results of this study can be generalized to a few amounts, despite the restriction regarding the usage of one sample from Thailand. An earlier study by Futterer et al. (2018) showed that the study associated with results of corporate entrepreneurship could be compared with Pakistan and also with various economic frameworks, particularly to the economies that have gone through changes from state or social towards the model of private ownership and in the previous years from the state-towards the market-oriented economy. The researchers are assured that corporate entrepreneurship activities and encouragement from the firm regarding these actions play a significant role in the organizational performance in Pakistan and other various countries that followed the same change-over cycle.

The significant consideration has been offered to the association between performance and corporate entrepreneurship (CE). Various scholars have claimed that corporate entrepreneurship (CE) can encourage the organizational overall collective performance (Cho & Lee, 2018; Gupta & Dutta, 2016; Idiaro, 2019; Khan, 2018; Patrick, 2017; Perlines et al., 2017). Corporate entrepreneurship (CE) tends to move towards the competitive benefit and act as a component of the efficacious firm (Covin & Wales, 2019). Corporate entrepreneurship (CE) has findings regarding expanded markets and products, and the existence of instrumental development regarding impressive financial findings as well (Strobl et al., 2020). Corporate entrepreneurship (CE) is also a forecaster of development among small companies (Cho & Lee, 2018). In the same way, positive and significant associations were determined among innovativeness, the dimension of CE, risk-taking with performance, and proactive approach (Choi & Williams, 2016; Khan, 2018; Patrick, 2017).

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