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Entrepreneurial Orientation and Government Support: The Mediating Role of Knowledge Sharing in Rural Areas

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Abstract

This research focus on analysing how entrepreneurial orientation (EO) and government support (GS) affect the performance of rural businesses in Nawabshah, Pakistan. Moreover, its mediating variable is knowledge sharing (KS), which enhances the relationship between EO, GS and enterprise performance (EP). Rural entrepreneurs and small business owners within the city of Nawabshah, Pakistan were sampled and collected. The test of the proposed hypotheses was conducted using structural equation modelling (SEM) in order to evaluate both the direct and mediating effect. The findings showed that the research model that was proposed was supported. EO and GS had a significant effect on the performance of enterprises, and KS was an important mediator that increased the positive effect of EO and GS on the performance results. The data indicate that in rural areas, entrepreneurs have not only good GS but also active exchange of knowledge in their communities creating better innovation and competitiveness. According to the best knowledge of the authors, the investigation of the combined influence of EO, GS, and KS on rural enterprises in Nawabshah, Pakistan is one of the first attempts. The outcomes provide a more in-depth insight into the interaction between government support and EO and KS to improve the performance of rural enterprises. In addition, the research offers insights to the policymakers and development agencies on how to enhance entrepreneurial systems in rural locations.

Introduction

Entrepreneurship has been identified to play a major role in economic growth, job creation, and social transformation particularly in developing economies whose rural areas tend to be underdeveloped in terms of structural development (Wahed et al., 2025; Qadeer and Awad, 2025). In recent years, EO has emerged as a fundamental concept of how entrepreneurial behaviours such as innovativeness, proactiveness, and risk-taking may lead to improved EP (Awad et al., 2025; Ghonim et al., 2025). At the same time, the role of GS has also been noted as an emerging tendency within the entrepreneurship literature where the success or failure of entrepreneurial activities in the underdeveloped areas are often predetermined by the presence or the lack of numerous policies, financial incentives, and infrastructural solutions (Hussain et al., 2023; Brahmi et al., 2025). However, minimum has been performed to comprehend the processes through which EO and GS can be useful in enhancing the performance of rural businesses. One of them is KS; it assists entrepreneurs and communities in sharing experiences, skills, and insight to make innovative and resilient in challenging environments (Ghonim & Awad 2024; Hussain, 2022). The current body of literature on the topic, both in the developed and developing context, has evidently shown that EO influences the development of companies and their competitiveness positively (Hussain, 2023; Awad et al., 2024) and that the GS is the final enabling factor that enables entrepreneurial enterprises to flourish (Aldabousi, 2024; Hussain, 2023). Nevertheless, most of these studies have been undertaken in cities or industrialised settings without much concern of rural locations with limited resources, inadequate infrastructures, and social dynamics (Wahed et al., 2025; Qadeer and Awad, 2025). Similarly, as KS has already been recognised to be instrumental in the organisational learning and innovation process (Awad et al., 2025; Awad et al., 2024), KS in the context of the rural entrepreneurial ecosystem, particularly in South Asian nations, has not been given much attention (Khan et al., 2023). This leaves a substantial research gap on the relationship between EO and GS with KS to affect EP within the marginalised rural environments. To fill this gap, the example of Nawabshah, Pakistan provides a special and interesting setting. The primary feature of Nawabshah in the Sindh province is the fact that the economy of the region is predominantly rural, depends on agriculture, and the entrepreneurship segment has been expanding, but has not been fully utilised (Awad and Mahmoud, 2024).

The entrepreneurs of this region must face numerous challenges, including the inability to access financial resources, inadequate infrastructure, and the absence of exposure to advanced entrepreneurial practises (Mahmoud et al., 2025). However, the unique cultural and social dynamics of Nawabshah also have a powerful community and informal knowledge network which can be utilised to strengthen the EP as long as it is effectively backed by the government interventions (Awad et al., 2025). The analysis of this context gives a possibility to obtain some extra knowledge regarding the combinational possibilities between EO and GS with KS in terms of

performance results in the conditions when institutional support is weak and such social capital is relatively high. The primary objective of this study is to examine the direct effects of EO and GS on the performance of the rural based enterprises within Nawabshah, and also examine the mediating role of KS. By so doing, the study focus in providing a fined version of the impact of integrating the entrepreneurial behaviours and institutional support systems towards attaining performance sustainability within the rural areas. Specifically, the study determining the potential of KS as a conclusive tool where EO and GS will execute their influence on the EP. This study is significant in the sense that it can add to theory and practise. In theory, it is based on the literature on EO and GS that adds the concept of KS as the mediating variable in a rural environment, which explains the EP more comprehensively (Aldabousi, 2023; Alzboon et al., 2023). In practise, the findings would presumably inform policy makers, development agencies, and other local actors on how to design particular interventions that are not only able to provide financial and infrastructural support but also allow the exchange of knowledge between rural communities (Obeidat et al., 2024). The study focuses deliberately on the rural businesses in Nawabshah but the findings can be extrapolated to other rural regions in Pakistan and other developing nations.

The study is valuable because, to the best of our knowledge, there is very minimal empirical research done on the interaction of EO, GS, and KS in a rural Pakistani context. Unlike the literature that is present and is largely dealing with urban entrepreneurship or macro-levels of policy structures, the study provides previews of lived experiences of rural entrepreneurs who operate in circumstances of resource scarcity and who are strikingly reliant on community based support structures (Awad et al., 2025). The necessity behind this research is that there is an immediate need to establish how the entrepreneurship of the villages can be rejuvenated in locations like Nawabshah where a historical marginalisation of economic opportunities by the people has existed despite the entrepreneurial potential of the locals (Alzboon et al., 2023). In theory, the research design employed is a quantitative research since the investigation will gather data through the assistance of rural entrepreneurs and small business proprietors in Nawabshah. Through SEM, the research has been able to test the direct and indirect relationships between EO, GS, KS and the performance of an enterprise. This is a rigorous approach of testing the hypothesised mediation framework and ensuring the results are sound and can be used in practise (Hair et al., 2019). Lastly, the paper is important in that it provides a localised but generalisable model of the role of EO and GS mediated by KS, to lift rural businesses. It brings out the point that sustainable rural development should

not be confined to the desire of entrepreneurs and institutional support but on active knowledge exchange within communities. The research focuses on rural entrepreneurs in Nawabshah, Pakistan, and therefore amplifies the voices of those sidelined economies in regards to how they can utilise entrepreneurial processes to expand with inclusiveness.

Methods

3.1 Sample and data collection procedure

The data to be used in the present study was gathered through purposive convenience sampling in rural businesses and small enterprises in Nawabshah, Pakistan, in which the target population is narrow and does not govern the whole study (Hussain, 2023). The rationale behind targeting rural entrepreneurs in Nawabshah was that the region relied on agriculture, trade, and small-sized services and the fact that there is a lack of institutional and infrastructure support to business owners in these settings. With such a target population, the study aimed to reflect the real life conditions of the rural entrepreneurs who are most influenced by the EO, GS and KS practices. The collection of the data was done between March and July of 2025. At the very beginning, the local trade associations, agricultural co-operatives, and small enterprise clusters were approached with a request to join. Upon agreement between organizations and the community leaders, the rationale of the study was presented, and paper-based as well as online questionnaires were sent to entrepreneurs and small business owners. Participants were convinced of the voluntary nature of participation, anonymity was guaranteed and participants were given the right to withdraw at any point. There was no financial incentive in order to prevent response biasness. Eight hundred entrepreneurs were contacted and 560 responses were received giving a response rate of about 70%. Once the survey incompletes and cases with patterned or non-sincere responses (e.g., the same answer to all items) were filtered out, the final analysis included 523 valid responses. This was a big sample size that surpassed the minimum requirements in SEM (Jackson, 2003; Kline, 2015). The screening of the data were performed as per the specifications that govern the outliers, normality, and multicollinearity (Field, 2013; Meyers et al., 2013; Kline, 2015).

The rural Nawabshah entrepreneurs were diverse, which was revealed in the demographic profile of the respondents. The vast majority of the participants were men, which is related to the gendered distribution of the entrepreneurial activity in rural Pakistan, although female entrepreneurs could also be found, especially in home-based enterprises. Most of the respondents were in micro- and small-scale sectors, which included the agricultural sector, retail, and services. There was different levels of education with some having basic school education and others university education. With respect to experience, a considerable number of the sample had over five years of business management experience, reflecting both experienced and novice entrepreneurial views.

Table 1. Demographic characteristics of respondents

Characteristics	Categories	Frequency (N)	Percentage (%)
Gender	Male	391	74.8
	Female	132	25.2
Age group	20–30 years	118	22.6
	31–40 years	192	36.7
	41–50 years	137	26.2
	Above 50 years	76	14.5
Education level	Secondary or below	97	18.5
	Intermediate (12 years)	142	27.1
	Bachelor's degree	202	38.6
	Master's degree or higher	82	15.8
Business type	Agriculture-related enterprises	187	35.8
	Retail and trade	164	31.4
	Services (education, health, etc.)	172	32.8
Years of business operation	Less than 3 years	126	24.1
	3–5 years	173	33.1
	More than 5 years	224	42.8

3.2 Measures

As the initial measurement tools were written in English, bilingual professionals translated them into Urdu and Sindhi with a strict forward-backward method of translating to guarantee linguistic and cultural validity (Awad, 2024). To begin with, the survey items in English were translated to Urdu/Sindhi by two bilingual professionals (Version 1). After that, it was translated into English (Version 2) supported by two other bilingual professionals, who are conversant in local culture and entrepreneurship contexts. The original English points were contrasted with the back-translated version and discrepancies were spotted and revised. After revisions, a second Urdu/Sindhi version (Version 3) was produced that was once again checked against bilingual experts to verify conceptual equivalence. A pilot test was done on 35 rural entrepreneurs in Nawabshah to fine tune clarity and reliability of the items.

After some slight modifications, the completed form of the instrument was adopted. Measures of all constructs were based on a 5-point Likert scale (1 = strongly disagree, 5 strongly agree).

Measurement of EO was done through nine-item scale that has been extensively tested and found valid to measure innovativeness, proactiveness and risk-taking (Hussain et al., 2023). This scale has proven to be highly reliable in different aspects in diverse cultural and sectoral settings including developing economies like Pakistan (Aldabousi et al., 2025). Cronbachs alpha has been found to be over 0.80 in a variety of settings, and this confirms its internal consistency (Alqaraleh, 2024; Hussain, 2023; Nazil, 2025). One of the sample items is that, our business focuses on creation of new products and services. The GS was assessed with the help of a six-item scale based on the previous research (Awad, 2024; Obeidat et al., 2024), including the perceived access to financial support, training sessions, and infrastructural resources. Empirical results indicate that this scale has a good level of validity in emerging economies as the Cronbachs alpha is always greater than 0.75. An item to be used as a sample, Government programs give us enough support to improve our business. KS was measured with a five-item scale made by (Qadeer et al., 2025) who measures the willingness and the practice of KS by the employees with their entrepreneurial networks. The tool has been extensively tested in Asian settings and is always found to have reliability scores above 0.80 (Aldabousi et al., 2025; Yahia et al., 2025). One of the sample items is, I share my business experience and best practices with other entrepreneurs in my community. They were measured by a multidimensional scale, similar to (Hussain et al., 2023), which includes financial, operational, and non-financial indicators as an EP measure. This scale is especially applicable to the small business in the developing economy because it includes both measurable results (i.e., sales increase, profitability) and the unmeasurable ones (i.e., customer satisfaction, reputability in the market). The previous research indicates that estimates of reliability in the context of the developing countries are above 0.78 (Armutcu et al., 2025; Brahmi et al., 2025). One of the items in it is as follows: Our enterprise has demonstrated a vast improvement in the overall performance as compared to the previous year. This multi-construct method of measurement can be seen to have guaranteed high psychometric quality, cultural suitability and cross-context similarity, which allowed the study to explore and test EO, GS and KS practices in rural entrepreneurial setting of Nawabshah, Pakistan, with a high level of reliability.: Author's processed (2025)

3.3 Data Analysis

The gathered data were calculated with the help of SPSS version 29 and AMOS, according to a two-step method. The initial use of the descriptive statistics summarized the demographic features of the respondents that would present a profile of the participating entrepreneurs in the city of Nawabshah. The relationships that were hypothesized were then analyzed with the help of SEM. The use of SEM

was deemed suitable since it enables the estimation of several and intricate relationships between latent constructs at the same time, thus giving a more thorough evaluation of the research model (Hair et al., 2019). This analysis started by estimating the measurement model that was assessed through recommended fit indices to confirm construct validity (Saeed et al., 2025). After attaining a satisfactory model fit, structural model was tested to evaluate the hypothesized relationships between EO, GS, KS and EP. Since all the measures were taken on the same respondents through a self-reported survey, common method bias (CMB) was a possibility. In order to reduce this threat, a number of procedural remedies were used, according to the recommendations of Podsakoff et al. (2003). The participants were assured of confidentiality and anonymity, made to understand that there were no correct or incorrect answers and urged to give an honest response. Psychological separation of constructs was introduced by page breaks and by randomly placing items. The single-factor test by Harman was performed statistically and the findings indicated that there was no single factor that explained the large portion of the variance with the first factor explaining less than 40 percent of the total variance. This implied that CMB was not an issue of concern in the data. Also, other researchers like Awad et al (2024) and Hussain and Mari, (2023) assert that the issue of CMB is generally exaggerated, which further confirms the strength of the dataset. Cronbachs alpha was used to test reliability and internal consistency of the constructs. Each construct showed values that were much above the 0.70 mark which is the acceptable level of reliability. Table 2 shows the descriptive statistics, correlations and reliability coefficients.

Table 2. Descriptive statistics, correlations, and reliability estimates

Variables	M	SD	1	2	3	4
EO	3.88	0.69	(0.91)			
GS	3.72	0.74	0.59**	(0.88)		
KS	3.95	0.70	0.62**	0.56**	(0.90)	
EP	3.81	0.65	0.55**	0.49**	0.61**	(0.92)

Notes: **Correlation is significant at the 0.01 level. M = mean; SD = standard deviation; values in parentheses are Cronbach's alpha coefficients.
Source: Authors' own work.

Result

4.1 Measurement model

To determine internal consistency reliability of the four constructs, EO, GS, KS and EP, cronbachs alpha was calculated. The level of alpha provided by all constructs indicated strong reliability (Table 2) as all constructs produced alpha values that exceeded the recommended alpha of 0.70 (Hussain, 2023). Measurement model was then defined to reflect the four latent variables together with their observed indicators. The results of confirmatory factor analysis (CFA) showed that the model fits reasonably well: 254.37 unlike 84; $p < 0.01$; comparative fit index (CFI) = 0.97; goodness-of-fit index (GFI) = 0.91; TuckerLewis index (TLI) = 0.96; root mean square error of approximation (RMSEA) = 0.05; and standardized root mean square residual (SRMR) = 0.03. These indices are within the generally suggested ranges, which proves that the given measurement model was suitable in terms of fitting the data. All items loaded substantially on their own constructs, with standardized factor loadings of 0.64 to 0.88 (t-values of 8.12-14.27; $p < 0.05$) which indicate reliability of the indicators. Calculated composite reliabilities (CRs) of the constructs were between 0.79 and 0.93, which is above the 0.70 threshold. Convergent validity was established by the fact that average variance extracted (AVE) values of all the constructs fell within a range of 0.52 to 0.74, which was greater than the recommended value of 0.50 by Fornell and Larcker (1981). Discriminant validity was also determined, in that the square root of the AVE of each construct exceeded the inter-construct correlations, showing that each construct shared more variance with its indicators than with other constructs. Some of the correlations were moderately high, especially between KS and EP (r = 0.61), yet none of these met the critical threshold that would indicate that there is multicollinearity. When combined, these findings were good evidence of reliability, convergent and discriminant validity of the measurement model.

4.2 Structural model

The table 3 shows the output of the structural model. The model fit statistics showed that the hypothesized framework had a strong and acceptable fit: 2 = 842.56, SD = 305, p-value = 0.01; CFI =.97; NFI =.95; TLI =.96; RMSEA =.04; and SR =.03. These findings support the view that the given structural model is suitable to analyze the observed data. The squared multiple correlations (R 2) indicated that the model accounted 44.2 percent, 49.6 percent, and 57.1 percent of the variance in GS, KS and EP respectively. This is to show that the integrated framework gives relevant explanatory power. The hypothesis of the research was tested according to the significance of the structural path coefficients. The positive and significant effect of EO on GS (= 0.48, $p < 0.001$) and on EP (= 0.39, $p < 0.001$) confirmed H1. The EO to KS path was, as well, statistically significant (2 = 0.52, $p < 0.001$), which validates H2. Also, H3 was confirmed when GS was positively associated with EP (0.28, $p < 0.001$).

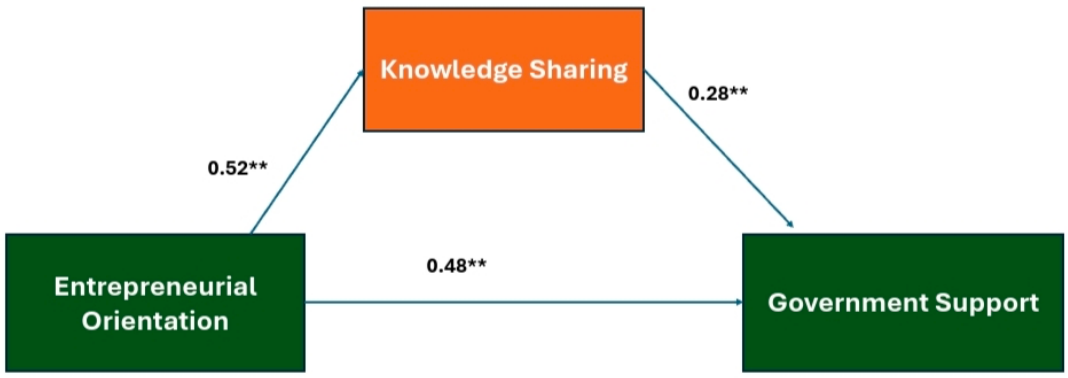
Notably, the mediating capacity of KS was established. The impact of EO on KS on enterprise performance was large (0.17, $p < 0.001$), which confirmed H4. This implies that EO does not only boost the EP directly but indirectly as well since it encourages KS attitudes, which consequently promote EP as a whole. Collectively, these results confirm the put forward model and represent the key role of KS as a mediating process between EO and performance. Figure 1 shows the postulated relationships and standardized predictions.

Table 3. Structural path estimates

Path	Path estimates (t value)	Hypothesis testing
(H1) EO → GS	0.48 (12.21)	Supported
(H2) EO → KS	0.52 (14.05)	Supported
(H3) GS → KS	0.28 (8.34)	Supported
(H4) EO → KS → EP	0.17 (6.97)	Supported

Source: Authors' own work

Figure 1. Mediation Model Results



Result

The results of the current paper present a strong piece of evidence regarding the interaction between EO, GS, KS and EP) in Nawabshah, Pakistan. The findings indicate that EO has strong positive effects on GS and KS, and these mediate EP, whereas KS functions as a decisive mediating variable between EO and performance. The results presented above highlight the fact that companies that exhibit greater degrees of proactiveness, innovativeness, and risk-taking do not only have greater institutional support, but also develop an organizational culture characterized by a knowledge orientation that leads to better performance results. This work fits into a wide body of existing literature that confirms the central role of EO in facilitating the success of firms in a variety of settings. Indicatively, Mahmoud et al (2025) and Hussain (2022) pointed out that EO is a strategic position that helps the organization to seize opportunities and develop resilience to environmental turbulence. Like the present results, Awad (2024) posited that EO has a positive effect on the performance of firms in case it is accompanied by the adequate contextual facilitators (such as conducive institutional settings). In developing markets, Aldabousi (2025) established that EO opens a growth route when facilitated by external support systems and this is similar to our findings that GS serves a complementary role in the Pakistan environment.

Moreover, their meta-analysis by Hussain (2023) and Nazil (2025) confirms the positive correlation between EO and performance that is always significant between the cultural and industry contexts, which is reflected in the large path coefficients of the study. It is also because the correlation between EO and GS in this paper confirms the findings in the developing economies where entrepreneurial activities tend to demand institutional legitimacy and policy support. Awad (2024) reiterated that EO cannot prosper alone and requires facilitating government interventions in mobilization of resources and legitimacy. Aldabousi (2022) recently found that Chinese companies with greater EO were more favorable to the state incentives, which is very similar to the positive EO-GS relationship in Nawabshah. These results also align with (Hussain et al., 2023) who established that government assistance served as a driver to entrepreneurial firms in Pakistan in terms of mitigating regulatory burden and opening financing opportunities. These parallels enhance the case that in institutional contexts where resources are limited, GS has a vital facilitative effect that enhances the payoff of EO. The findings also indicate that EO is a strong driver of KS which indicates that entrepreneurial firms are not just in the creation of new ideas but also participate in the transfer and distribution of knowledge beyond organizational borders. The result is in line with that of (Khan et al., 2023), who suggested that entrepreneurial cultures cultivate trust and openness that in turn improve knowledge flows. On the same note, Awad (2025) and Aldabousi (2025) affirmed that KS flourishes in organizations with risk taking and proactive

behaviors since the employees feel empowered at work and are willing to share experiences.

The results also resonate with Hussain (2023), who demonstrated that EO has a positive relationship with knowledge management practices within enterprises in the Middle East. As related to the Pakistani context, Awad and Aldabousi (2024) establish that entrepreneurial SMEs tended to incorporate KS in their practices more often, which supports the high level of EO- KS association that is revealed in this research paper. These results support the findings of previous works on the same topic indicating that governmental interventions offer crucial enablers to firm competitiveness. As an example, Aidis et al. (2008) observed that the firms in the transition economies heavily depend on GS to fill institutional voids and Awad et al (2025) also found the same in Malaysia, where GS improved the growth paths of entrepreneurial ventures. Khan et al (2023) in their study on the Pakistani context have highlighted that subsidies, training, and policy incentives are decisive in ensuring SME growth. This research implicitly adds background knowledge to the understanding of how GS acts as a performance enabler in rather under-studied second-tier urban economies by validating this connection in Nawabshah. The most important contribution that the study may make perhaps is the validity of the mediating role of KS in EO EP relationship. This agrees with the claims of Hussain (2023) who discovered that KS behaviors transform the entrepreneurial initiatives into actual performance results by learning and innovation in the organization. On the same note, Awad (2025) showed that KS can improve the absorptive capacity of the entrepreneurial firms and thus they can use the new knowledge to improve their performance.

These results also support the research of Qadeer et al (2025), who emphasized that KS mediates the association between EO and innovation performance, and KS is one of the key mechanisms that connect the entrepreneur behaviors and strategic performance. In the South Asian setting, the same Awad (2025) reported that KS also reported the way that EO transformed into sustainable EP, which further coincides with the role of mediating that was found in this paper. However, the results have not consistently been the same in all the previous studies. According to Ghonim et al (2024), under high uncertainty, the EO- performance relationship may be non-linear, meaning that risk-taking beyond some levels may have a counterproductive effect. On the same note, Aldabousi (2023) warned that EO may not be effective in performance improvement unless firms possess sufficient absorptive capacity that presents some potential boundary conditions missing in the present model. Although

these inconsistencies are indicative of contextual subtleties, such inconsistencies are mitigated by the large mediating role of KS in this context, which could be construed to mean that EO by itself might not be adequate without a knowledge-based process that can drive entrepreneurial energies into performance benefits. This study presents a contextual contribution by placing the analysis in Nawabshah. Nawabshah, unlike those metropolitan centres as Karachi or Lahore, is an urban economy of medium size with a shallow institutional base, but with a high degree of entrepreneurial potential. These findings prove that, despite the limited resources in such circumstances, there is a way to use EO with the help of GS and reinforced by KS to lead to meaningful EP. This brings to the fore the need to expand the scope of EO and knowledge management studies beyond the big city to clearly understand the variety of entrepreneurial ecosystems in Pakistan.

The results, in general, contribute to theoretical and practical debates in three major aspects. To begin with, they strengthen the universality of EO as a performance driver and put its operation in Pakistan in perspective. Second, they elucidate the mediating effects of KS, which provides an explanatory procedure that fulfills the gaps in the literature of EO-performance. Third, they demonstrate that GS is not a background factor only but an active enabler that enhances the performance outcomes of EO. Collectively, these observations add to entrepreneurial, institutional, and knowledge management theories and have practical implications to policymakers, managers, and development agencies interested in spurring regional enterprise development in emerging markets.

5.1 Theoretical Implications

The current research achieves a number of contributions to the theoretical knowledge about EO, GS and KS in the context of EP in the developing economies. Corroborating the direct impact of EO on GS and KS, as well as the mediating effect of KS in the EO-performance nexus, this study adds to the prevailing views of the RBV and the KBV. Although RBV implies that companies gain competitive advantage through the use of scarce resources, our results imply that EO does not fully explain performance, unless linked with government-made resources and converted into organizational routines by KS. In that way, it will further enrich the Institutional Theory by showing that EO in Nawabshah is not simply a factor of market dynamics but is also internalized within the state-driven interventions and proves the interdependence of the agency of entrepreneurship and institutional facilitation. Moreover, the research extends the cross-cultural relevance by demonstrating that theoretical constructs, which have been proven effective in Western economies, including the mediating role of KS (Awad, 2024; Qadeer and Awad, 2025), can also be applied to the South Asian situations, but the research strength might also be enhanced due to government-related interventions, which may fill the gaps in the institutions.

Therefore, the paper creates a theoretical connector as it incorporates the entrepreneurial, institutional, and knowledge-based approaches into a more comprehensive model explaining the conditions affecting rural and semi-urban business in emerging economies.

5.2 Practical Implications

In practical terms, the findings portray important lessons to business people, managers and leaders of enterprises in Pakistan and similar developing countries. To start with, the high influence of EO on both KS and GS indicates that companies should proactively develop the entrepreneurial mentality, with the focus on innovation, proactiveness, and rational risk-taking, so that they have the opportunity to receive the institutional support and promote knowledge flows within an organization. Failure to portray EO can make entrepreneurship to be unable to win the trust of the government bodies or be unable to motivate their enterprises to adopt collaborative learning cultures. Secondly, mediating nature of KS means that managers should focus on developing trust based systems and platforms through which employees and peer networks can freely share experiences, best practices and problem solving strategies. Investment in digital technology, local groups, and informal peer networks may help to convert isolated knowledge into a collective competence that improves enterprise performance. Third, the paper recommends that entrepreneurs in semi-urban locations such as Nawabshah should plan to be strategically aligned with government programs, e.g., training programs, subsidies, or microfinance efforts, not just to acquire real resources but also to become embedded within institutional ecosystems where KS becomes the accepted and supported norm. Through operationalization of EO and knowledge based practices, firms may be able to turn constraints on resource bases into competitive advantages which are permanent.

5.3 Social and Policy Implications.

This research has important ramifications in the area of social development and policy making in Pakistan. On the societal level, the findings show that promoting EO and KS in rural and semi-urban enterprises does not only lead to firm-level performance, but also to empowerment in communities. The KS practice tends to be spread into the local circles that go past the organizational structure into the local community so that the entrepreneurial skills, the innovative methods, and business

processes are shared to the extent of enhancing whole communities. It is particularly important in Nawabshah, where entrepreneurial ecosystems are not well-developed, and informal knowledge networks are the focus of community resilience.

To policymakers, the evidence suggests that supportive frameworks to go beyond financial aid and actively implement KS systems into government programs are required. Rural incubators, cooperative associations, and extension services should be developed in a way to stimulate peer learning and the KS. The mediation of KS as observed in this research can be enhanced with the use of policies that encourage cooperation, such as granting of collectives projects or recognition programs to those enterprises that help in community learning. Moreover, the findings suggest that it would be essential to adapt GS to the specifics of semi-urban economies in which a business can be prone to infrastructural bottlenecks and limited access to formal bodies of knowledge. Governments can support the success of individual enterprises and wider regional growth by offering local training and capacity-building workshops, and through the provision of digital knowledge platforms. In such a manner, EO, GS, and KS are not only organizational processes but also social tools of inclusive development and poverty eradication in the underdeveloped Pakistani territories.

5.4 Limitations and Future Research Directions.

Even though this research offers valuable information about the interaction between EO, GS, KS, and enterprise performance in Nawabshah, a number of limitations cannot be denied that reveal new opportunities in the context of future studies. First, the research used cross-sectional survey information, which limits the possibility of formulating solid causal conclusions. Although SEM provided a method of testing hypothesized relationships, it remains incapable of modelling dynamic feedback loops that vary with time. The future research need to use longitudinal designs to investigate the dynamics of interaction between EO, GS and KS at various stages in the development of enterprises and the ability of GS to generate KS behaviors and not isolated impacts. Second, purposive convenience sampling was adopted in collecting data in one regional setting. Though Nawabshah gives a valuable, yet understudied environment, the results might not be completely applicable to other rural or urban economies in Pakistan and otherwise.

There may be some cultural, institutional and economic differences in regions, which may dilute the intensity of the relations identified. The next generation of research can take a comparative multi-regional/cross country form, especially comparing semi-urban centers such as Nawabshah to metropolitan centers such as Karachi or Lahore, or rural settings where institutional voids might be more significant. These designs would increase our knowledge of the ways in which

institutional depth and regional culture condition the EO-KS performance nexus. Third, the research was dependent on self-reported measures of EO, GS, KS and performance, which can lead to common method variance even with the applied procedural remedies and statistical tests. Even though the single-factor test by Harman indicated that the common method bias did not pose a serious problem, the future research may enhance the validity of the findings by using multi-source or objective measures. As an example, self-reported responses to knowledge-sharing practices may be triangulated with government records, financial performance indicators, or third-party ratings of KS practices to give a more holistic view. Fourth, although the analysis was centered on KS as a mediating factor, no research was conducted on the possible moderators that may influence the intensity of such relationships. The organizational culture, leadership style, digital infrastructure or even gender dynamics in entrepreneurial communities may be the variables that can mediate the effects of EO and GS on KS and performance.

The model can be expanded to include moderators to demonstrate the boundary conditions and contingencies of the situation in the future. Lastly, the GS scope in this study was considered as a broad construct consisting of financial, infrastructural and training based programmes. But even not all kinds of GS can have the same impact on the KS and performance. There are interventions that are more likely to initiate trust-based networks and others that can mainly offer financial relief but not substantially change the learning behaviors. The research might be conducted in the future by disaggregating GS into specific dimensions to understand what kind of interventions best induce KS and EP, especially in semi-urban settings that have limited resources. Collectively, these constraints show valuable future research opportunities. Through longitudinal and multi-source designs, cross-contextual extensions of research, and the disaggregation of a complex contribution by institutional and organizational variables, researchers can develop a more holistic and contextually-infused model of the joint contribution of EO, GS and KS to enterprise outcomes. Not only will such efforts benefit the development of theory, but it will also produce actionable information so that policymakers and practitioners can enhance entrepreneurial ecosystems in Pakistan and other developing economies.

Conclusion

This paper aimed to explore the inter-relation of EO, GS and KS in the improvement of EP in the semi-urban environment of Nawabshah, Pakistan. These results validated that EO is a decisive source of GS and KS, and that KS is an important mediating force that transforms entrepreneurial behavior into actual performance results. The study contributes to our knowledge of the role entrepreneurial ecosystems play in resource-limited environments by showing that orientations toward innovation, proactive and risk taking are more likely to gain institutional support and build knowledge-based cultures. Conceptually, the study is relevant to the unification of the RBV, KBV and SCT in the sense that EO by itself cannot be guaranteed to deliver high levels of results unless it is complemented by facilitating government interventions and knowledge transfers within organizations. In practice, the paper emphasizes that entrepreneurs and managers working in semi-urban areas should not only think in an entrepreneurial way but also have a strategic approach to government programmes and develop a KS infrastructure in order to perform at their best. At the societal level, the findings show that developmental implications of GS and KS are more widespread since they spread knowledge outside an organization, which enhances the communities of local entrepreneurs and inclusion-based development.

The particular situation of Nawabshah provides a valuable addition to the research, as it proves that despite the lack of institutional depth in the area, the entrepreneurial behaviours that are supported by the state and learned in cooperation can contribute greatly to the success of the enterprise. This places KS not only as an organizational practice but as a social process by which EO is transformed into community level progress. Although the study admits that its methodological and contextual constraints restrict the study, a good basis is given towards future research to investigate the dynamics over time, cross-regional analysis, and the variousiated effects of government interventions. Collectively, the results emphasize that the development of EO, enhancing GS, and integrating KS are complementary policies that can turn local businesses into growth and resilience engines. Shedding light on such dynamics in a semi-urban Pakistani scenario, the study provides a scholarly contribution as well as practical advice on how to develop stronger and more knowledge-driven entrepreneurial ecosystems in emerging economies to entrepreneurs, policymakers, and development practitioners.

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