

**Effect of Kinship Network on Entrepreneurial Performance:
Mediating role of Knowledge Sharing and Opportunity Recognition**

Saleem Ullah Khan

Lecturer, Institute of Business & Management Sciences (IBMS), The University of Agriculture, Peshawar, KP, Pakistan. One mistake. Salimullahmarwat@hotmail.com

Muhammad Shafiq

Lecturer, Institute of Business & Management Sciences (IBMS), The University of Agriculture, Peshawar. KP, Pakistan mshafiq@aup.edu.pk

Muhammad Bilal

Lecturer, Institute of Management Studies, University of Peshawar. KP, Pakistan
bilal.marwat@uop.edu.pk

Abstract

Kinship network is an important part of the entrepreneurial ecosystem, especially in area where formal institutional support is weak. Prior research has not given much focus on the interaction between these sorts of networks, knowledge sharing practices, cognitive process underpinnings which support performance. This study aim to investigate the effect of kinship network on entrepreneurial performance with mediating role of knowledge sharing and opportunity recognition. The universe for the present study consisted of all micro level enterprises that were registered with Chamber of Commerce & Industry (Peshawar). Two hundred (200) entrepreneurs as Unit of analysis were selected randomly. Hayes PROCESS Models 4 were employed to test the hypothesized direct and indirect relationships. The current research revealed that kinship networks have a strong positive effect on entrepreneurial performance. Moreover, opportunity recognition was found to partially mediates the link between kinship network and entrepreneurial performance. The findings further confirmed that knowledge sharing is a strong mediator between kinship network and entrepreneurial performance. The study recommends that Ecosystem enablers including incubators and business development institutions should facilitate networking and mentorship opportunities that enhance opportunity recognition and promote effective knowledge sharing among entrepreneurs.

Keywords: Kinship network, entrepreneurial performance, opportunity recognition, knowledge sharing

I. Introduction

1.1 Background of the Study

Entrepreneurship is widely acknowledged as a catalyst for employment generation, innovation, and economic development particularly within emerging economies such

as Pakistan (Audretsch, 2007; Batool, et al. 2025). However, the entrepreneurial process cannot be claimed to be limited to personal ability but is inbuilt into its social context which influences the environment in which the entrepreneur operates (shane & Venkataraman, 2000; Manimala & Wasdani, 2023). Among these social structures, kinship network is the most important network constituted by close familiar and clan-based ties which exerts a powerful influence on the activities of entrepreneurial ventures in collectivist societies (Batjargal, 2003; Cappelli, et al., 2021). Within the field of sociology, kinship networks constitute a central mechanism of social capital, affording entrepreneurs access to trust-based resources, emotional support, and embedded reciprocal obligations that lower transaction costs and reduce uncertainty (Coleman, 1988; Portes, 1998). In systems like Pakistan that lack mature financial and institutional infrastructure, entrepreneurs mostly depends on such type of family relations or network to provide startup funding, informal education and access to customers (Khan & Quaddus, 2015; Nasir & Ul-Durar, 2025; Muhammad, et al. 2021). These networks do not only strengthen the resilience of the enterprise but also create sociocultural legitimacy, which is especially valuable in informal economic environment (Harahap et al., 2023).

While existing literature has acknowledged the pivotal role of kinship network in facilitating the early stages of business survival, the mechanisms through which these networks influence long-term entrepreneurial performance remain underexplored (Coviello, 2006; Wood et al., 2014). Prior research often treats kinship as a static resource rather than a dynamic platform for interactive processes such as knowledge sharing and collaborative strategic thinking (Zohra et al., 2009; Zhou & Xu, 2024; Li et al., 2022). This static treatment overlooks the fact that the benefits of kinship networks may depend heavily on the entrepreneur's ability to 'exchange knowledge' and 'recognize emerging opportunities'. Knowledge sharing refers the exchange of skills, information, and tacit insights that is essential to organizational performance (Tsai & Ghoshal, 1998). In the structure of kinships, that is, "groups of individuals who are connected by blood, marriage, or long term social relationships" trust and interpersonal intimacy reduce communication tension and introduce an air of disclosure and self-tutoring (Nahapiet & Ghoshal, 1998; Nonaka & Takeuchi, 1995). This is because entrepreneurs enclosed in strong kinship networks often develop extremely important tacit knowledge, such as pricing, supplier, and customer preferences, which is not accessible by means other than informal (Yang & Farn, 2009; Nasir & Ul-Durar, 2025; Muhammad, et al. 2021). The literature also suggests that opportunity recognition, i.e. the ability to sense and exploit emerging market needs, is significantly influenced by the social network and informational exposure of an entrepreneur (Ardichvili et al., 2003). Kin networks give them access to informal signals in the market, unmet local needs in the community, and localized business intelligence that help them to identify business opportunities early (De Carolis & Saporito, 2006; Manik, et al., 2023; Li & Johansen, 2023)). Relatives, especially those working in different sectors or areas, often become the source through which new business opportunities or unexplored customer markets are identified (Cappelli, et al., 2021).

When applied to Pakistan, kinship networks are a lot more than any support system, they often function as financiers, business advisors and a source of access to local markets (Khavul et al., 2010; Harahap et al., 2023). Since the businesses of over 90 percent of the country are either family-owned or kinship ties support SMEs, understanding the cognitive mechanism such as knowledge sharing and opportunity recognition that mediate the relationship between kinship networks and entrepreneurial performance becomes a matter of both theoretical and practical significance (Nadvi, 1999; Nasir & Ul-Durar, 2025; Muhammad, et al. 2021). The empirical literature has already confirmed that the presence of kin-based networks is a typical feature of entrepreneurial ecosystems (Batool, et al. 2025; Zhou & Xu, 2024; Li et al., 2022). Yet not much research focus has been given to the interactions between these sorts of networks, knowledge sharing practices, cognitive process underpinnings which support performance. Our study addresses this research gap by analyzing the role of knowledge sharing and opportunity recognition as dual mediators between the structure of social capital and the cognitive processes that transform it into achievable results (Wood et al., 2014; Wang et al., 2021). Therefore, this study aim to investigate the effect of kinship network on entrepreneurial performance with mediating role of knowledge sharing and opportunity recognition. **II. Literature Review**

Entrepreneurs often do not own all of the resources and capabilities usually required for new venture creation and growth (Granovetter, 1985). In turn, they mostly rely on their personal social networks to access financial and other required resource to support their business (Starr & MacMillan, 1990; Anderson & Jack, 2002; Greve & Salaff, 2003; Granovetter, 1995). In this regard, kinship network provides a critical sources of resources for entrepreneurship involved in setting up new ventures (Hite & Hesterly, 2001; Birley, 1985) and a persistent component of the networks of entrepreneurs operating across the globe (Drakopoulou & Patra, 2002; Anderson, et al., 2005). It is the general perception that kinship network can provide various resources to enable entrepreneurs to overcome the challenges associated with the growth of new venture ((Larson & Starr, 1993; Johannisson & Monsted, 1997). However, the specific role that kinship network of entrepreneurs play in the development of new venture and its performance is certainly a complex and an ambiguous phenomenon.

2.1 Kinship network and Entrepreneurial Performance

Entrepreneurial performance is commonly assessed using both financial and non-financial indicators, such as sales growth, profitability, innovation, and the entrepreneur's satisfaction or achievement of business goals (Murphy, Trailer, & Hill, 1996; Dess & Robinson, 1984). Among the key enablers of entrepreneurial success is social capital, particularly kinship networks, which provide critical material resources and intangible support such as trust, knowledge-sharing, and emotional encouragement (Nahapiet & Ghoshal, 1998). In the context of Pakistani small and medium enterprises (SMEs), both personal and institutional networking have demonstrated a significant positive impact on business performanc (Hussain et al.,2024; Pulka, et al., 2021). However, the role of kinship networks is complex and context-dependent. A survey conducted by IZA World of Labor in France and Germany found that kinship ties can have both positive and negative implications for entrepreneurial ventures (Nordman,

2016). Similarly, Gassie-Falzone (2016) referred to kinship in Albanian SMEs as either a “resource or a curse”. Kinship-oriented business dynamics play a crucial role in influencing entrepreneurial decision-making by various offering which in turn foster economic development (Chakuzira, 2024).

2.2 Knowledge Sharing as a Mediator

Knowledge sharing refers to the process by which individuals within a network exchange insights, skills, and experience that are critical for innovation and decision-making (Nonaka & Takeuchi, 1995). In entrepreneurial settings, especially those involving family-owned firms or kin-supported ventures, knowledge is often transferred through informal, trust-based interactions (Nahapiet & Ghoshal, 1998; Yang & Farn, 2009). Kinship networks offer unique advantages for knowledge sharing due to the high level of mutual trust and cultural alignment among members (Tsai & Ghoshal, 1998). This reduces perceived risks associated with sharing sensitive or tacit information, thereby accelerating learning and innovation (Nasir & Ul-Durar, 2025; Muhammad, et al. 2021). For example, an entrepreneur may consult an experienced uncle or cousin on inventory control or pricing strategies without fear of exploitation. In Pakistan, few studies have highlighted the importance of kinship network to improve firm performance in small and medium sized enterprises (SMEs). According to Nasir & Ul-Durar (2025), knowledge sharing among family and kin members has a strong influence on product and process innovation in SMEs. A similar conclusion is provided by Wang et al. (2021) who reveal that kinship ties are a key mediator between social capital and innovation performance in small firms. The authors, however, contend that kinship ties are not sufficient to improve performance unless entrepreneurs use them as a means of learning and knowledge transfer. Nevertheless, kin-based knowledge sharing possess inherent limitations. High levels of network homogeneity are likely to result in duplication of knowledge and maintenance of established beliefs as opposed to introducing new knowledge (Uzzi, 1997). As a result, quantitative and qualitative diversity of knowledge shared in kinship ties becomes the critical factor in determining performance outcomes (Cappelli, et al., 2021).

2.3 Opportunity Recognition as a Mediator

Opportunity recognition is the ability of the entrepreneur to identify and evaluate market gaps or unmet customer needs (Shane & Venkataraman, 2000; Ardichvili et al., 2003). It is a cognitive competence that depends on prior knowledge, experimental insight, and access to information (Mitchell et al., 2007). In most collectivist cultures, such information is often shared through kinship-based conversations and observations (De Carolis & Saporito, 2006). Kinship networks act as conduits for entrepreneurial opportunity recognition, providing informal yet pertinent information such as regulatory shifts, competitors behaviour and consumer preferences etc (Manik, et al., 2023; Li & Johansen, 2023). Family members working in various industries or geographical locations can share stories, experiences, and suggestions that can inform entrepreneurs about opportunities that are not yet visible to the rest of the market (Zhou & Xu, 2024; Li et al., 2022). Cappelli, et al. (2021) argue that entrepreneurs who have strong family ties have a high tendency of being exploratory, thus driving more opportunities to be discovered and exploited. This finding is congruent with Ardichvili

et al. (2003) who argue that continues exposure to diverse perspectives and experiential knowledge-attributes typical of kingship context fosters stronger opportunity recognition.

In recent scholarly discourse, opportunity recognition has been increasingly examined as a mediating construct within various entrepreneurial contexts. Hou et al. (2022) explored the mediating role of opportunity recognition between entrepreneurship education and entrepreneurial intentions of students and revealed that the construct fills the gap between the theoretical and real life intentions.. Similar results were obtained in Taleb et al. (2023, where the entrepreneurial opportunity recognition was shown to partially mediate the link between entrepreneurial leadership & entrepreneurial success. Furthermore, Khan et al. (2022) have analyzed opportunity creation as a mediating mechanism, which has shown that it mediates the relationship between environmental factors and entrepreneurial culture completely. In complement, Wang et al. (2019) studied the effects of network embeddedness on social entrepreneurial intentions in university students and concluded that the efficacy of opportunity identification partially mediates the relationship.

III. Methodology

The universe for the present study consisted of all micro level enterprises that were registered with Chamber of Commerce & Industry (Peshawar). This research was quantitative and cross sectional. Two hundred (200) entrepreneurs as Unit of analysis were selected randomly. To gather data, technique of survey through structured questionnaire was adopted. Kinship Network questions were adapted from Aldrich & Cliff (2003), Ensley & Pearson (2005) with 09 items, Entrepreneurial Performance from Fisher, Maritz & Lobo, (2014) with 06 items, Knowledge Sharing from Holste and Fields (2010), Wang and Wang (2012) with 06 items and Opportunity Recognition was adapted from kuckertz et al. (2017) with 05 items. All variables were measured on five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

IV. DATA ANALYSIS

4.1 Demographic Analysis

The population demographic information were categorized on the basis of age, education, Income and experience. It was found that there were 28 (14%) respondents upto 28 years, 131(65.5%) between 29-40 years, and 41 (20.5%) respondents were of 41 or above years old. The table shows that 132 (66%) respondents have SSC/FA/FSc or below level education, 49 (24.5%) respondents have Bachelor level and 19 (9.5%) respondents have master level education. Similarly 48(24%) respondents have income upto Rs. 50000, 108(54%) have income between Rs. 51000-100000 and 44(22%) have above Rs.100000 income per month. Furthermore, 39(19.5%) respondents have 7 years or below experience, 105(52.5%) have 8-15 Years and 56(28%) have 16 or above years of experience.

4.2 Reliability and Validity of Variables:

The internal reliability of each variable was confirmed through calculating Alfa value. The authors recommended the Alfa value as satisfactory, if it holds above 0.70 threshold value (Malhotra and Birks, 2007). In below table, the alfa value for our four

variables (Kinship Network = 0.84, Opportunity recognition= 0.78, Knowledge Sharing =0.79) and Entrepreneurship Performance= 0.82) are more than 0.70, thus supporting the criteria of internal consistency.

Similarly, the author examined the factor loading, AVE & CR to confirm Convergence validity for each variable in the research model. The data showed that all values of factor loading are more than the threshold value of 0.4 as suggested (Hair et al. (2013). Moreover, the AVE value for the four variables (Kinship Network= 0.57, Opportunity recognition= 0.53, Knowledge Sharing =0.55 and Entrepreneurship Performance= 0.58) were found above the threshold value of 0.5 (Hair et al. (2014). Similarly, the calculated CR value for our four variables (Kinship Network= 0.92, Opportunity recognition= 0.85, Knowledge Sharing =0.88 and Entrepreneurship Performance= 0.89) were also found above the threshold limit of 0.7 suggested by Hair et al. (2014), thus, supporting the criteria of the convergence validity.

Reliability and Validity analysis:

	Factor Loading	α	AVE	CR		Factor Loading	α	AVE	CR
Entrepreneurship Performance					Knowledge Sharing				
ENTPR1	0.723	0.82	0.58	0.89	KSH1	0.818	0.79	0.55	0.88
ENTPR2	0.765				KSH2	0.732			
ENTPR3	0.856				KSH3	0.816			
ENTPR4	0.767				KSH4	0.627			
ENTPR5	0.768				KSH5	0.672			
ENTPR6	0.673				KSH6	0.794			
Kinship Network					Opportunity Recognition				
KINS1	0.781	0.84	0.57	0.92	OPR1	0.744	0.78	0.53	0.85
KINS2	0.852				OPR2	0.843			
KINS3	0.754				OPR3	0.797			
KINS4	0.743				OPR4	0.618			
KINS5	0.688				OPR5	0.603			
KINS6	0.722								
KINS7	0.841								
KINS8	0.764								
KINS9	0.665								

4.3. Hypotheses Testing

4.3.1 Direct Path of independent variables and dependent variable

Hypothesis 1 predicted that Kinship Network has a significant positive effect on entrepreneurial performance. The coefficient path shows that Kinship Network has a significant positive effect on entrepreneurial performance ($\beta = 0.953$, $P = 0.000$) which indicates that an increase in Kinship Network support can lead toward an entrepreneurial performance. This result is consistent with previous findings (Chakuzira, et al., 2024; Ertug et al., 2020) which states that Kinship Network support helps in increasing entrepreneurial business development in society.

Hypothesis Testing and Direct path of Independent and dependent variable

		Estimate	S.E.	P
	ENTPER <--- KINSHIP	.953	.079	.000

4.3.2 Path Model of Opportunity Recognition and Knowledge Sharing as Mediator between Kinship Network and Entrepreneurial Performance using Hayes Process Method Model 4

The mediation analysis using Hayes Process Model 4 explored how kinship influences entrepreneurial performance through two separate mediating variables: knowledge sharing and opportunity recognition. When examining the mediation through knowledge sharing, the results showed a significant direct effect of kinship on entrepreneurial performance ($\beta = 0.9191$, $p = 0.000$), indicating that even after accounting for knowledge sharing, kinship remains a strong predictor of performance. The indirect effect through knowledge sharing was also statistically significant ($\beta = 0.0341$), with a confidence interval that does not include zero, suggesting that knowledge sharing plays a partial mediating role.

Hypothesis (H3) predicts that opportunity recognition significantly mediates the link between kinship network and entrepreneurial performance. In below table 4, the direct effect of kinship network on entrepreneurial performance was statistically significant ($\beta = 0.7281$, $p = 0.000$). At the same time, the indirect effect of kinship network through opportunity recognition was also significant ($\beta = 0.2251$), with a confidence interval LLCI=0.5183, ULCI=0.9380 and does not contain zero. Therefore, opportunity recognition serves as a powerful mechanism through which the kinship network enhance entrepreneurial performance. Moreover, the total effect of kinship network on entrepreneurial performance was significant and consistent in both mediation pathways ($\beta = 0.9533$, $p = 0.000$), confirming the overall influence of kinship network on entrepreneurial performance. Therefore, H3 confirmed that opportunity recognition partially mediates the link between kinship network and entrepreneurial performance.

Path	Direct effect	Indirect effect	Total effect
KINSHIP-- KNOWSHR-- ENTPER	($\beta = 0.9191$, $p = 0.000$) LLCI = 0.7648, ULCI = 1.0735	$\beta = 0.0341$, LLCI = 0.0052 ULCI =0.0757	($\beta = 0.9533$, $p = 0.000$) LLCI = 0.7976 ULCI =1.1090
KINSHIP-- OPPCREAT-- ENTPER	($\beta = 0.7281$, $p = 0.000$) LLCI = 0.5183, ULCI = 0.9380	$\beta = 0.2251$, LLCI = 0.0881 ULCI = 0.3719	($\beta = 0.9533$, $p = 0.000$) LLCI =0.7976 ULCI =1.1090

V. Conclusion and Recommendation

5.1 Conclusion

Kinship network is an important part of the entrepreneurial ecosystem, especially in area where formal institutional support is weak. These connections provide various types of support which include emotional, financial, and informational support that help

entrepreneurs overcome the challenges associated with starting and developing new business (Johannisson & Monsted, 1997). Some studies have indeed discussed kinship network in the entrepreneurial context (Chakuzira, et al., 2024; Verver & Koning, 2018; Khayesi, et al., 2014; Zhou & Xu, 2024), yet majority of these studies have been conducted in European and developed markets, with less attention being paid to the emerging markets. The current study aim to make a new contribution to the literature by investigating the effect of kinship network on entrepreneurial performance along with analyzing the opportunity recognition and knowledge sharing as potential mediators.

The current research revealed that kinship networks have a strong, positive effect on entrepreneurial performance, which supports the findings of earlier literature. Chakuzira et al. (2024) claim that kinship-based business relations significantly influence entrepreneurial choices with varied offerings, thus driving economic growth. Ertug et al. (2020) also argue that horizontal employee kin ties improve the performance of new firms. Adjei et al. (2019) further state that entrepreneurial family relations, that is, children and spouses, exhibit a positive relationship with firm performance.

The current research shows that opportunity recognition partially mediates the relationship between kinship network and entrepreneurial performance. These findings are in line with earlier studies. For example, Khan et al. (2022) studied opportunity creation as a mediating variable and found that it fully mediates the relationship between environmental factors and entrepreneurial culture. Similarly, Anwar, et al. (2022) carried out a study where opportunity recognition partially mediated the connection between the entrepreneurial orientation and the new venture performance in emerging markets. Moreover, Wang, et al. (2019) showed that the efficacy of opportunity identification partially mediates the linkage between network embeddedness and the social entrepreneurial intention of the university students.

The current study confirmed that knowledge sharing is a strong mediator in the relationship between kinship network and entrepreneurial performance. These findings are in line with previous academic studies. According to Gul et al. (2024), the entrepreneurial knowledge plays a key mediating role in the relationship between kinship network and entrepreneurial performance. Farooq & Vij (2018) report a similar effect, indicating that knowledge management intermediates the relationship between entrepreneurial orientation and business performance. A research by Hanifah, et al. (2022) established that the relationship between the task interdependence and trust of SMEs and their entrepreneurial orientation is completely meditated by internal knowledge sharing. Madhoushi, et al. (2011) also state that entrepreneurial orientation directly and indirectly through knowledge management influences innovation performance, thus stating that knowledge management entirely mediates the relationship between entrepreneurial orientation and innovation performance. Drawing from Social Capital Theory (Nahapiet & Ghoshal, 1998; Coleman, 1988) and the theory of Entrepreneurial Cognition (Mitchell et al., 2007), the research conceptualized kinship networks not merely as structural supports but as dynamic enablers of knowledge flows and opportunity identification that shape entrepreneurial outcomes.

5.2. Recommendations of the Study

Based on the findings of this study, we suggest some recommendation for entrepreneurs, policy makers, and ecosystem enablers:

- i. Entrepreneurs should move beyond merely relying on kinship networks for financial or emotional support. Instead, they should leverage these networks strategically for accessing diverse knowledge and scanning for latent opportunities in local and informal markets.
- ii. Entrepreneurship development programs in emerging markets should be tailored to incorporate the role of kin-based learning. Training modules that enhance opportunity recognition and knowledge absorption within informal family systems can significantly boost enterprise success.
- iii. As kinship networks often substitute for formal venture capital, microfinance and SME support programs should recognize and accommodate the influence of informal support systems, including kinship financing and advisory roles.

5.3 Limitations and Future Research Directions

Despite the robustness of the findings, several limitations must be acknowledged. For example, the use of a cross-sectional design limits causal inference. Future research may employ longitudinal or mixed-method approaches to explore changes over time in how kinship networks affect entrepreneurial trajectories. The sample is restricted to micro-enterprises in Peshawar, which may limit the generalizability of the findings. Future studies should consider diverse regions and industry sectors to validate these results. The study did not examine the diversity within kinship ties (e.g., education level, sectoral exposure of kin), which may significantly influence the quality of knowledge and opportunity cues. Future research could explore how heterogeneity within kin networks moderates entrepreneurial outcomes.

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