

# Impact of entrepreneurial knowledge, skills, and competencies on MSME performance: an evidence from a developing country

Raheem Bux Soomro

*Institute of Business Administration, Shah Abdul Latif University,  
Khairpur, Pakistan*

Sanam Gul Memon

*Government College for Women, Khairpur, Pakistan, and*

Marvi Soomro

*Institute of Business Administration, Shah Abdul Latif University,  
Khairpur, Pakistan*

## Abstract

**Purpose** – This paper is an empirical investigation of the effect of knowledge, skills and entrepreneur competencies on the performance of micro-, small- and medium-sized enterprises (MSMEs) operating in Upper Sindh, Pakistan.

**Design/methodology/approach** – The data were collected from owners/managers of MSMEs operating in major cities of Upper Sindh. A total of 1,100 respondents were identified through snowball and social contacts tools. A total of 316 respondents permitted researchers to visit their firms and collecting data from them by a survey questionnaire.

**Findings** – The findings shows that entrepreneurial skills and networking have a positive and significant effect on entrepreneurial competency. Then, entrepreneurial skills, networking and entrepreneurial competency have a positive effect on enterprise performance. The findings show a significant mediation effect of entrepreneurial competency on the relationships between entrepreneurial skills and networking and enterprise performance.

**Originality/value** – This paper provides useful conclusion in understanding the entrepreneur's characteristics and their impact on performance MSMEs, which is crucial for promoting entrepreneurial activities and for enhancing socio-economic conditions among low-income households located in Upper Sindh, Pakistan. The government must make preparation in organizing trade fairs, seminars and road shows on certain services/products to which MSMEs' entrepreneurs, consumers and suppliers might be invited to ease their connections.

**Keywords** Performance, Skills, Market orientation, Networking, SmartPLS 4, Mediation

**Paper type** Research paper



---

## Introduction

Small- and medium-sized Enterprises (SMEs), which make up over 90% of firms worldwide, drive job creation, innovation and economic growth (Mago and Modiba, 2022). According to the World Bank SME Finance (2019), more than 65 million enterprises, accounting for 40% of all MSMEs in developing countries, are affected. According to Ratanova and Voroncuka (2021), SMEs are extremely important to the global economy because of the impact they have on gross domestic product (GDP) and employment opportunities worldwide.

In Pakistan, MSMEs significantly contribute to the economy, accounting (Raza *et al.*, 2018; Khan *et al.*, 2013) for over 30% of GDP, 25% of exports and employing more than 80% of the workforce across various sectors (Khan *et al.*, 2013; Dar *et al.*, 2017), including agriculture, services, retail and wholesale trading firms and manufacturing. Sindh is home to one million SMEs, or small- and medium-sized businesses, and a whopping 30% of Pakistan's GDP. Approximately, one-third of Pakistan's SMEs are located in Upper Sindh (Tribune, 2021). This past year, 5.2 million SMEs were recorded in Pakistan, according to Najeeb (2021).

Operating a firm or entrepreneurship cannot avoid uncertainty (Afwā *et al.*, 2021; Christa and Kristinae, 2021), so it demands experienced entrepreneurial competence to run it (Halim *et al.*, 2021). Lack of key competences in entrepreneurship, for instance, mastery of knowledge, attitudes and abilities connected to business governance, makes it difficult for business competitiveness to develop and compete with similar businesses (Sembiring *et al.*, 2023). Competencies, sales orientation, networks, entrepreneurial abilities and market orientation are among the many characteristics that impact the performance of MSMEs, according to multiple research (Nugroho, 2023). According to Dwi *et al.* (2022) and Man *et al.* (2002), an entrepreneurs' inherent skill is associated with their productivity on the job. To succeed, stay focused and obtain an advantage over the competition, one must develop their entrepreneurial competency (Julyanthry and Sudirman, 2021; Muniarty *et al.*, 2021). The importance of entrepreneurial skill on a company's growth and development has been highlighted by research (Yustian *et al.*, 2021; Trisnawati and Darsana, 2021). According to multiple studies, including Kyndt and Baert (2015), Bhutta and Ali Shah (2015), Toma *et al.* (2005) and Osman and Rahim (2012), entrepreneurial abilities are one of the many factors that contribute to the success of MSMEs.

According to Hisrich and Peter (2002), the capacity to manage a company is known as entrepreneurial skills. Entrepreneurial skills allow one to recognize possibilities in the market and technical areas, come up with concepts for products or services to address those requirements and learn more about the domain and prospective prospects (Chell, 2013; Hayton, 2015). Acquiring the skills to assess a business environment for opportunities, threats, strengths and weaknesses is a key component of entrepreneurial skills (Albanus *et al.*, 2022). MSMEs' performance is negatively impacted by a lack of entrepreneurial skills (Abdullah and Mansor, 2018). As managers and SME owners are more likely to spot new market opportunities and figure out how to close gaps and transform them into profitable ventures, entrepreneurial skills foster innovation in the workplace (Esubalew and Raghurama, 2020). According to Tjahjadi *et al.* (2024), market orientation and business performance have grown in importance for companies. Kotler *et al.* (2021) presented the first notion of market orientation, highlighting the significance of comprehending the market, providing value for customers and adjusting to changes in the business environment. To achieve strong corporate performance, market orientation highlights how crucial it is to recognize and satisfy consumer wants (Narver and Slater, 1990; Kohli and Jaworski, 1990). According to earlier studies (Gruber-Muecke and Hofer, 2015; Narver and Slater, 1990; Gerschewski *et al.*, 2015; Jogaratnam, 2017), market orientation improves a company's performance. Another significant element of this research study, sales orientation, relates to

the entrepreneur's involvement in company activities and emphasises obtaining revenue from the sale of goods and services (Panagopoulos *et al.*, 2017). According to Taneja and Toombs (2014), sales orientation measures an entrepreneur's capacity to forge enduring bonds with their clients to boost revenue for the business. According to Saengchai *et al.* (2019), the sales orientation offers a workable option for forging enduring relationships with customers and generating sales using effective common sales techniques. Higher sales could result from the impact on sales orientation, which would help entrepreneurial enterprises achieve sustainable performance (Moura-Leite *et al.*, 2011). To build and maintain networking relationships with both present and future stakeholders, the final competency – the relationship competency – is required (Mamun and Griffiths, 2019). This competency develops a network of solid, reciprocal connections with a range of stakeholders, which eventually drives company expansion and success. Entrepreneurs now frequently participate in networking events through trade exhibits (Gerschewski *et al.*, 2020), social clubs, clusters and alliances (Sorensen, 2018). To acquire vital resources like cash, raw commodities, information and knowledge and skills, organizations must actively build relationships and networks with these external actors (John, 2024).

Above discussion shows that extant literature has recognized the crucial roles of entrepreneurial skills, networking, market and sales orientation in increasing the performance of MSMEs. However, no similar studies have been done in various cities of Upper Sindh (Sukkur, Larkana, Shikarpur, Jacobabad and Khairpur) to determine the effect of entrepreneurial skills on the performance of SMEs. Hence, this study aims to fill this gap by investigating effects of factors (i.e. knowledge, skills and competencies) on entrepreneurial competencies and performance of MSMEs located in Upper Sindh, Pakistan. This research will also contribute to the literature on entrepreneurship in the context of MSME's in developing nations like Pakistan. As no such comprehensive study paradigm has been used in this context before, especially when it comes to the mediated impacts of entrepreneurial competences on MSMEs' performance. As literature clearly shows that network plays crucial role in arranging resources for MSMEs. Therefore, another objective is how networking affects the owners of MSMEs in enhancing the performance of their organization. Last but not least, this paper's unique contribution is the application of the resource-based view (RBV) theory, which enables it to investigate the optimal solutions for improving MSMEs' performance.

Furthermore, our study also aims to assist policymakers and practitioners in framing various strategies to increase skills and competencies of owners of MSMEs. To achieve the stated goals, the study has used a structural equation modelling (SEM), with the help of SmartPLS-04. Moreover, data were gathered from owners/managers of MSMEs in several major cities in Upper Sindh, Pakistan. The paper is further sectioned into literature review (which encompasses all conceptual thoughts on the subject matter), the empirical review and the study's conclusions and recommendations are presented in the last section.

## Literature review and hypotheses development

### *Theoretical foundation*

This study investigated the relationship between entrepreneurial orientation, entrepreneurial abilities and performance of enterprise using the RBV. According to the RBV theory (Penrose, 1959), an organization is viewed as a collection of resources because it possesses a number of rare and valuable resources that can be used to gain a competitive advantage and produce good organizational performance in the short term (Barney, 1991). Developing and maintaining a competitive edge through efficient use of an organization's resources and talents is the main goal of RBV theory (Lestari *et al.*, 2024). According to the RBV of the firm, a company is composed of a collection of capabilities, resources and competencies that

are unique, valuable, uncommon and integrated into one another (Barney, 1991). The company can arrange these assets in a particular way to give it a competitive edge in the markets in which it operates (Barney, 1991). Organizational resources can be divided into two, namely, tangible and intangible. Tangible resources are physical and financial resources like equipment or product stock and factories, whereas intangible resources are resources that are not physically apparent such as knowledge, reputation, business relationships technology, etc. (Grant, 1991; Russo and Fouts, 1997). These resources are described as distinctive, significant, scarce, demanding and hard to reproduce (Abrokwah-Larbi, 2024). The notion of RBV is a managerial concept that, according to Barney (2001) and Lubis (2022), enables MSMEs to maximize their tangible and intangible resources, which can produce a competitive advantage over rivals. According to Abrokwah-Larbi (2024), these assets are distinctive, significant, scarce, difficult to replicate and demanding. According to Mubeen *et al.* (2023), the RBV hypothesis similarly contends that a company's unique internal resources and capabilities are the source of its competitive advantage and success. This theory states that an MSMEs' capacity for attaining a lasting competitive advantage and outperforming its competitors in the market is determined by the special combination of resources and competencies within the company (De Arroyabe *et al.*, 2023). Capabilities specifically refer to a company's ability to use organizational procedures and resources, frequently in combination, to accomplish particular goals (Teece, 2014). By following above discussion, RBV was relevant for this study to understand that the endurance of microenterprises (as well as SMEs) is profoundly dependent on their unique resources and human competencies.

#### *Entrepreneurial competencies and entrepreneurial skills*

Skills are the abilities required for business success. The essential competencies required to enable someone to launch, build, support and succeed in a chosen endeavour are known as entrepreneurial talents (Olaoye, 2024). A combination of self-esteem, job-specific knowledge, personal qualities and social, managerial and networking abilities that boost business results is what makes an entrepreneur competent (Rehman *et al.*, 2021). These skills greatly affect the success of MSMEs by impacting several areas of their operations, development and sustainability (Srilekh and Kapoor, 2023). Entrepreneurial abilities are a vital resource for organizations and significantly contribute to improving organisational performance (Rehman *et al.*, 2021). Fundamentally, developing entrepreneurial competencies necessitates acquiring a set of capabilities by entrepreneurs (Kutzhanova *et al.*, 2009). Accordingly, a company's success is highly dependent on the entrepreneur's skills and competences (Gunawan, 2024). Resultantly, in this investigation, the below-mentioned hypothesis is suggested:

- H1. Entrepreneurial skills have a positive and significant impact on entrepreneurial competence on MSMEs.

#### *Enterprise performance and entrepreneurial skills*

According to Albanus *et al.* (2022), entrepreneurs that possess entrepreneurial skills are better able to assess possibilities, risks and the business environment. Because they lack the necessary business skills, non-entrepreneurs typically lack the attribute that entrepreneurs possess: the ability to expertly navigate complex obstacles (Mwangi, 2020). The enterprise owner will therefore determine an enterprise's performance. According to Park and Rhee (2012), performance is the capacity of MSMEs to achieve favourable market outcomes. Similarly, Venkatraman and Ramanujam (1986) defined a company's performance is a

holistic concept that considers both its financial and operational outcomes. The RBV stated that the entrepreneur's skills, notable knowledge and abilities can complement their business presentation (Barney, 1991; Tehseen and Ramayah, 2015; Grant, 1991). Furthermore, this theory says that to be successful, there are two essential things like capabilities and resources (Davis and Cobb, 2010). Piperopoulos and Dimov (2015) believed that acquiring skills further enhances the degree of performance of SMEs. Chandler and Jansen (1992) uncovered that organizations could build their net revenues and growth by creating entrepreneurial skills. The literature demonstrates that the individual skills of the entrepreneur contribute to a great extent to firm execution and development (Bird, 1995; Lerner and Almar, 2010; Cooper, 1994). Campbell *et al.* (2012) said that the beliefs and skills of entrepreneurs are essential for firms. Past studies additionally demonstrated that the skills of an entrepreneur could add to enterprise performance, profitability and growth (Cooper, 1994; Bird, 1995; Mitchelmore and Rowley, 2010; Lerner and Almor, 2002; Chandler and Jansen, 1992).

This study presents the following hypothesis based on theories and available literature:

- H2. Entrepreneurial skills have a positive and significant impact on firm performance on MSMEs.

#### *Entrepreneurial competencies and market orientation*

According to Yaskun *et al.* (2023), market orientation entails constantly assessing customer needs and wants to establish and satisfy them. Empirical evidence of the effect of market orientation on entrepreneurial ability has been provided by previous research by Abidin *et al.* (2022). According to Hujayanti (2020), in order for a business to provide sufficient market service, it must successfully satisfy the needs of both customers and competitors. To guarantee success, businesses need to have a market orientation, which is described as a focus on and commitment to developments in market information dissemination, collection and responsiveness to customer requests (Kohli and Jaworski, 1990). According to Elvina (2020), every business owner worth their salt would prioritize their clients' needs and go above and above to fulfil their expectations whenever they were formulating a strategy for their venture.

According to RBV, entrepreneurial skills are highly valued in market-orientated activity and culture. SMEs that maintain a high level of market orientation possess adaptation and better knowledge of recent market trends (Menguc and Auh, 2006; Raju *et al.*, 2011). In addition, a focus on the market makes it easier for SMEs to raise productivity, as well as increase communication, collaboration and integration among inter-functional areas with fewer barriers to poor customer service (Liao *et al.*, 2011).

By following the above arguments, this research study suggests the hypothesis that:

- H3. Market orientation has a positive and significant impact on entrepreneurial competencies on MSMEs.

#### *Enterprise performance and market orientation*

Businesses are evaluated based on their performance (Agarwal *et al.*, 2022; Islam *et al.*, 2022; Blevins *et al.*, 2020). There is a high degree of interdependence between business success and market orientation. Companies with a focus on the market constantly analyse customer preferences and needs using market data (Dameshifa *et al.*, 2023). Dameshifa *et al.* (2023) found that a company's ability to adapt impacts the availability and response of market information. A high degree of entrepreneurialism and market orientation improves

---

business performance, according to [Boso et al. \(2013\)](#), who noted that market orientation is influenced by shifting consumer demands and preferences. Various market-oriented research studies reasoned that market-oriented culture is a massive indicator of further developed business performance as it puts a top-notch on client needs through the market-oriented business endeavours to develop consumer satisfaction further, consequently expanding firm performance ([Olabode et al., 2018](#); [Ali et al., 2019](#); [Morgan et al., 2019](#)). Likewise, if a market-oriented organization recognizes and battles to address client desires, needs and preferences better than rivals, the degree of firm performance increments ([Prifti and Alimehmeti, 2017](#)). According to RBV, a viable market-orientated strategy can work with associations to use wonderfully as they comprehend their purchasers' necessities and wants, rivals' capabilities and strategy, distribution channel prerequisites and advancements and a more extensive market climate ([Morgan et al., 2009](#); [Jaworski and Kohli, 1993](#)).

The following hypothesis is offered in this study based on the RBV and current research:

- H4. Market orientation has a positive and significant impact on firm performance on MSMEs.

#### *Entrepreneurial competencies and sales orientation*

As defined in the literature on sales management by [Kushwaha et al. \(2021\)](#), salespeople who adhere to the sales-orientation ideology put more emphasis on making sales than on satisfying customers' needs. Sales orientation is a company strategy focusing on influencing people to buy products rather than understanding the client's needs. According to the research presented by [Jaramillo et al. \(2007\)](#), a strong sales orientation conveys the message to business owners who engage in sales training that they must close every sale. A sales-oriented firm is where activities are steady with the development and maintenance of a sales programme satisfactory to its requirements (e.g. increase profitability, expand market share, etc.) ([Sumrall et al., 1991](#)). So, according to [Boles et al. \(2001\)](#) the goal of this strategy is to maximize sales while accommodating as many clients as possible in a mutually beneficial way. In this case, RBV contends that sales-oriented behaviour is an exceptional and irreplaceable asset for eliciting entrepreneurial skills and generating competitive advantage ([Barney, 1991](#)). The exceptional performance of a company can be guaranteed by a sales representative's (an entrepreneur in a small business) exceptional selling skills, as stated by [Wachner et al. \(2009\)](#).

After evaluating the theory and current literature, the below hypothesis is proposed:

- H5. Sales orientation has a positive and significant impact on entrepreneurial competencies on MSMEs.

#### *Enterprise performance and sales orientation*

As a sales strategy, sales orientation occurs when a corporation disregards its consumers' real demands in favour of attempting to persuade them to purchase its goods and services ([Bhasin, 2023](#)). According to [Terho et al. \(2012\)](#), market performance is a firm's success in terms of the development of the number of products or services supplied, as measured by customer loyalty, new customer acquisition and achievement of the intended market share and growth rate. According to the RBV, sales-oriented behaviour is an enterprise's unique talent that may lead to exceptional success ([Barney, 1991](#)). Individually, consumer orientation and sales are significant predictors of business performance, according to [Jaramillo et al. \(2007\)](#). A favourable influence of sales orientation on performance was found by [Wachner et al. \(2009\)](#). Furthermore, selling abilities are highly and favourably associated with sales performance.

It is hypothesized in this investigation:

H6. Sales orientation has a positive and significant impact on entrepreneurial performance of MSMEs.

#### *Entrepreneurial competencies and networking*

The term “entrepreneurial networking” is used by Abu-Rumman *et al.* (2021) to describe the informal or formal ways in which business owners help each other out. These networks help small businesses get the resources they need to run (Ribeiro *et al.*, 2021). Any company’s network capabilities are a vital source of exceptional performance (Ziggers and Henseler, 2009; Dyer and Singh, 1998). The capacity to oversee networks that involve a core character with direct engagement with other parties exposed to the principal character indirectly by means of his immediate friends is depicted as networking in this study (Aldrich and Zimmer, 1986). A person’s competence can be defined as their demonstration of the behaviours that are considered to be the norm for performance within an organization (Ismail, 2022). Skills in planning, problem-solving and analysis are all part of the competences, as are business-related abilities like orientation (Ismail, 2022). Using RBV as a foundation theory, and in accordance with Mitchelmore *et al.* (2014) and Ahmad *et al.* (2018) research, we propose that competencies of entrepreneurs, specifically ethical, network and strategic, are critical inside resources that lead to MSMEs’ success. We presume a positive association between network competence and strategic competency since the firm’s success depends on networking with external parties. Indeed, networking through professional relationships can help to sharpen skills (Ahmad *et al.*, 2010; Bird, 1995).

By following the above arguments, this study presents the below-mentioned hypothesis:

H7. Networking has a positive and significant impact on entrepreneurial competencies on MSMEs.

#### *Enterprise performance and networking*

An enterprise network serves as the communication infrastructure of a company, connecting computers and devices within workgroups and departments to enable data accessibility and knowledge sharing (Ayegba and Zhou, 2020). The entrepreneurial business network (EBN) is a complex network of enterprises collaborating to accomplish similar economic goals (Eisenhardt and Martin, 2000; Ozcan and Eisenhardt, 2009). The EBN also provides a platform for businesses to create relationships, find, develop or share information, act on business opportunities and take prospective business associates. According to Minai *et al.* (2012), entrepreneurial networks are intangible resources that improves the efficiency of micro, small and medium businesses. One alternative is to say that networking is a distinct ability that propels business success. These networks help small businesses get the resources they need to run (Ribeiro *et al.*, 2021). Viable networking, for instance, equips entrepreneurs with support and experience to improve business performance (Ahmad *et al.*, 2010). Multiple studies (Chu and Yoon, 2021; Abu-Rumman *et al.*, 2020; Madzimore, 2019; Wang and Fang, 2021) have demonstrated the importance of entrepreneurial networks in improving company performance. Networking is used to gauge the growth of the firm in MSMEs (Nabiswa and Mukwa, 2017).

Thus, the following hypothesis is offered:

---

H8. Networking has a positive and significant impact on company performance on MSMEs.

*Enterprise performance and entrepreneurial competencies*

According to [Onstenk \(2003\)](#), competency is an expansive notion that includes entrepreneurs must have abilities, knowledge, motivations and attitudes to practice ([Alam et al., 2016](#)). An entrepreneur is someone who has the innate qualities that allow them to start their own company ([Rajendra Prasad, 2022](#)). Information, qualities, motivations, self-perceptions, social roles and abilities – both general and specific – that the individual is or is not aware of are all part of the characteristics ([Rajendra Prasad, 2022](#)). Researchers found many entrepreneurial qualities and their relationships to firm performance were explored ([Man, 2001](#); [Alam et al., 2016](#)). Personal contacts, business management, entrepreneurship and human relationships are required to confirm corporate achievement, according to [Mitchelmore and Rowley \(2013\)](#). Entrepreneurial talents have a substantial impact on company success in the creative industries, according to [Sukriani et al. \(2023\)](#), especially in the food subsector. Existing research suggests various abilities to produce superior financial performance in small businesses ([Gerli et al., 2011](#); [Baron and Markman, 2003](#)). Hence, it is critical to acknowledge that enhancing the outstanding performance of MSMEs requires obtaining additional talents ([Kisubi et al., 2022](#)).

This study offers the following hypothesis based on available empirical evidence:

H9. Entrepreneurial skills have a positive and significant impact on firm performance of MSMEs.

*Mediating effect of entrepreneurial competencies*

The research conducted by [Pepple and Enuoh \(2020\)](#) sheds light on the key elements linked to entrepreneurial competency. Personal traits and leadership abilities influence the attributes and skills needed for business success, which are examined in the study ([Pepple and Enuoh, 2020](#)). Sales orientation, entrepreneurial skills, networking and market orientation are all components of entrepreneurial competency, and it is possible to achieve company performance. This research implies that entrepreneurial competency may be a moderator in the interactions between market orientation, entrepreneurial skills, sales orientation, networking and company success. [Sarwoko et al. \(2013\)](#) discovered that entrepreneurs' competency has a mediating influence on the performance of MSMEs. [Baum and Locke \(2004\)](#) discovered that entrepreneurial abilities indirectly influenced venture growth. Entrepreneurial competencies (including market orientation, orientation, sales, networking and skills) are unique resources that give capabilities (including entrepreneurial competency) for enhancing the performance of the firm, which brings us back to the RBV ([Grant, 1991](#); [Barney, 1991](#)). As a result, entrepreneurial abilities might be investigated as a mediating function. In accordance with [Baron and Kenny \(1986\)](#), this research investigated the indirect (as opposed to the direct) influence of entrepreneurial abilities, sales orientation, networking and market orientation on firm success.

By following the above literature following hypotheses have been formulated:

- HM-1. Entrepreneurial competencies serve as a mediator between entrepreneurial skills and enterprise performance among MSMEs.
- HM-2. Entrepreneurial competencies serve as a mediator between enterprise performance and market orientation among MSMEs.



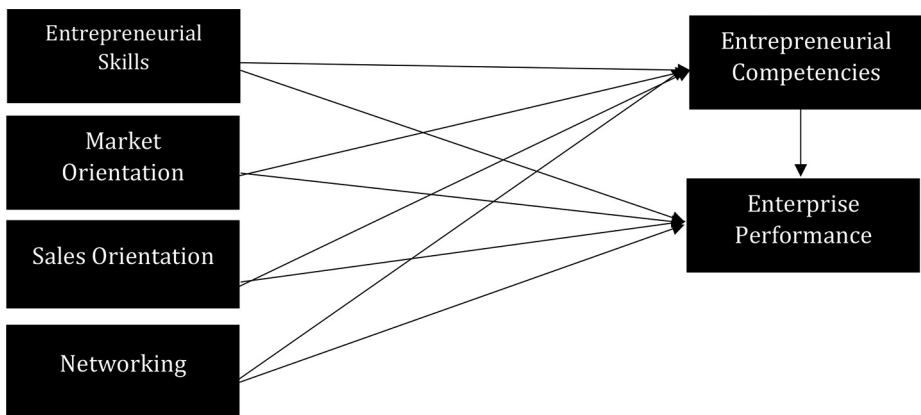
- HM-3. Entrepreneurial competencies serve as a mediator between enterprise performance and sales orientation among MSMEs.
- HM-4. Entrepreneurial competencies serve as a mediator between enterprise performance and networking among MSMEs.

**Research methodology**

*Procedure and participants*

A cross-sectional research design was applied in this research manuscript for the collection of quantitative data on the effect of market orientation, entrepreneurial skills, sales orientation and networking on the entrepreneurial competency and performance of micro, small and medium firms possessed by low-income households in major cities in Upper Sindh, Pakistan (Figure 1). Many SMEs in Pakistan’s Upper Sindh region were surveyed. Respondents belonged to the MSME’s management or ownership team. We also believe that an owner or a manager possesses complete information regarding their organization (MSME). To compile a comprehensive list of MSMEs in Upper Sindh, we combed through the websites of various Chambers of Commerce in Sukkur, Larkana, Shikarpur, Jacobabad and Khairpur. It was still not possible to find any lists or information there. Due to the lack of a complete list, we were unable to ascertain the overall count of MSMEs in the main cities in Upper Sindh. Consequently, data from various MSMEs operating in various main cities of Upper Sindh were collected using a snowball sampling technique and social contacts. Snowball sampling can be used when researchers have difficulty finding study participants.

Using these methods (social contacts and snowball methodology), we were able to collect data on 1,100 MSMEs across many different sectors, including wholesale, retail, manufacturing, agriculture, livestock, poultry and services. Among the 1,100 respondents, a total of 360 respondents permitted researchers of this research manuscript to visit their firms and collect data from them through a survey questionnaire. Out of 420 survey questionnaires, 60 survey questionnaire were found invalid due to several issues like such as missing or incomplete data, presence of outliers and unengaged responses. The data collection started



Source: Figure was created by authors

Figure 1. Research framework

---

from December 2022 to February 2023. In addition, [Reinartz et al. \(2009\)](#) suggested a sample size of 100 for applying SEM using partial least squares (PLS). Direct participant completion of a questionnaire in person provided the data for the survey. We selected potential respondents earlier in the data collection process and briefed them on the purpose of the survey as well as the strict confidentiality of their responses.

#### *Survey research instrument*

A questionnaire was written in English so respondents could readily grasp the questions. We translated the questionnaire by professional language translators in Sindhi and Urdu languages before administrating them for data collection. More than 60% population of Sindh province speaks the Sindhi language, whereas more than 18% speak in Urdu ([Khaleeq, 2018](#)). With minimal adjustments, items for the questionnaire were adopted from the literature (refer to [Appendix](#)). [Linan's \(2008\)](#) items for measuring entrepreneurship talents were borrowed. [Kohli et al. \(1993\)](#) provided the items used to assess market orientation. [Saxe and Weitz \(1982\)](#) were then used to develop things that considered sales orientation. With items obtained from [Witt \(2004\)](#) were used to measure networking. Also, we borrowed certain questions from [Man et al. \(2008\)](#) to use in gauging entrepreneurial competency. Survey questions were culled from [Morgan and Strong \(2003\)](#) to evaluate an enterprise performance. Respondents were asked to rate their level of agreement with each statement using a five-point Likert scale (ranging 01 – strongly disagree to 05 – strongly agree).

#### *Common method variance*

Empirical research in the fields of organizational studies and entrepreneurship has recently centred on the problem of common method variance (CMV) and common method bias (CMB), which can distort the findings of empirical analyses conducted by different researchers on the same pool of respondents ([Tehseen et al., 2017](#); [Jakobsen and Jensen, 2015](#)). According to [Jordan and Troth \(2020\)](#), the concept of CMB arises when data is gathered for all variables, including independent, dependent, moderating and mediating variables, using a consistent measurement approach. [Richardson et al. \(2009\)](#) explained the CMV as the systematic error variance shared by constructs assessed using the same technique or source. CMV has continually grabbed the interest of PLS researchers as it has the potential to contribute to biases in each PLS study that use the survey approach to gather information from similar sort of respondents while using a similar kind of Likert scale. Because our study used a survey approach with a five-point Likert scale (a similar sort of estimating scale) to gather data from MSMEs' owners/managers (similar kinds of respondents), CMV might occur, making our study's results biased and untrustworthy. To assess the presence of CMV, the study used a technique proposed by [Kock \(2015\)](#), wherein the variance inflation factor (VIF) values were examined. The presence of a VIF over the threshold of 3.3 is suggested as an indicator of pathological collinearity and potential contamination of a model due to common technique bias. Hence, if all VIFs obtained from a comprehensive collinearity examination are equal to or less than 3.3, it is reasonable to conclude that the model is devoid of CMB. [Table 1](#) displays the VIF (inner model) values generated by SmartPLS. Hence, if all VIFs derived from a comprehensive collinearity assessment are equal to or less than 3.3, it can be concluded that the model is devoid of CMB.

#### *Multi-variate normality*

This research manuscript used the Web Power online program to measure multivariate normality. This Web Power tool assessed Mardia's multi-variate skewness and coefficients

**Table 1.** Full collinearity VIF

	Variance inflation factor values	
	Ent_Compt	Entrp_Perf
Ent_Compt		1.58
Ent_Skills	1.31	1.52
Entrp_Perf		
Mrkt_Ort	1.29	1.29
Netwrk	1.16	1.36
Sal_Ort	1.28	1.28

**Source:** Table was created by authors

of kurtosis. Therefore, the  $p$ -value was less than 0.05, indicating the presence of multi-variate non-normality.

### Empirical results

#### *Data analysis*

To calculate descriptive statistics and test the study model, this paper used SPSS-24 and PLS-SEM. Using Smart PLS 4.0, the data analysis was carried out. SmartPLS 4 introduces some notable new features like redesigned graphical user interface, side-by-side comparison, saving reports, opening later customizable charts and accepting different data types. PLS-SEM was used for this investigation because the psychometric aspects of the research components, including reliability and validity, were tested concurrently with the connections between exogenous and endogenous variables in the research model (Chin, 1998). Furthermore, PLS-SEM is variance-based and appropriate for predictive applications (focuses more on explained variance,  $R^2$ ) (Hair et al., 2014). In addition, while using PLS-SEM, data do not require normally distributed data; PLS prefers nonparametric multi-group analysis for group comparison (Chopdar et al., 2022).

#### *Demographic characteristics*

Of the 316 SME responders, 65.8% were men and the remainder were women (Table 2). The majority of respondents were between the ages of 20 and 30 (23.4%). Many of them (64.6%) were married. Moreover, 20% of respondents completed their high school education, whereas 19.3% completed their elementary education. However, 13.3% of those respondents finished their education. Only 14.9% of those polled never attended any degree of education. In addition, 25.3% of respondents were employed by retailers. Out of the remaining workforce, 20.6% were involved in wholesale, 15.2% in manufacturing, 17.1% in services, 5.7% in livestock, 11.4% in agriculture and 4.2% in poultry.

#### *Reliability and validity*

Statistics for reliability and descriptive values are displayed in Table 3. Entrepreneurial competency, networking, market orientations, entrepreneurial skills, sales orientations and micro-enterprise performance were all shown to have meant and standard deviations by use of descriptive statistics. For evaluating the reliability of a survey's internal consistency, Cronbach's alpha is typically used as a conservative measure. All the variables had Cronbach's alpha values higher than 0.7, according to the study. This proved that all poll

**Table 2.** Profile of the respondent

Demographic characteristics	<i>n</i>	%
<i>Gender</i>		
Male	208	65.8
Female	108	34.2
Total	316	100
<i>Age</i>		
20–30 years	74	23.4
31–40 years	113	35.8
41–50 years	85	26.9
51–60 years	31	9.8
61 years and above	13	4.1
Total	316	100
<i>Marital status</i>		
Single	74	23.4
Married	204	64.6
Divorced	24	7.6
Widowed	14	4.4
Total	316	100
<i>Education</i>		
Never attended school	47	14.9
Primary	54	17.1
Secondary	61	19.3
Tenth grade	46	14.6
Twelfth grade	54	17.1
Graduation	42	13.3
Graduation and higher	12	3.8
Total	316	100
<i>Business type</i>		
Manufacturing	48	15.2
Retailing	80	25.3
Wholesaling	65	20.6
Agriculture	36	11.4
Livestock	18	5.7
Poultry	15	4.7
Service	54	17.1
Total	316	100

**Source:** Table was created by authors

questions were valid. Composite reliability, another indicator of dependability based on internal consistency, can also be used (Hair *et al.*, 2013).

Composite dependability must be at least 0.7 to be achieved (Hair *et al.*, 2011). According to Table 3, all of the CR values for the different variables were higher than 0.8. Dillion-Goldstein rho values for all indicators were also greater than 0.7. Convergent validity (CV) requirements require that AVE values be greater than 0.50. All AVE values were more than 0.50, hence CV was considered adequate. VIF were calculated for each variable to identify multicollinearity; VIF values for all variables were less than 3.3. Thus, this study paper lacked multicollinearity.

Table 4 shows that loadings of all indicators were greater than 0.7, except for 03 indicators with higher than 0.5. Indicators with standardized loadings of less than 0.7 were maintained

**Table 3.** Reliability and validity

Variable	Item	Mean	SD	CA	DGrho	CR	AVE	VIF
Entrepreneurial competency	4	3.29	1.08	0.91	0.91	0.91	0.72	1.76
Entrepreneurial skills	4	3.25	1.27	0.86	0.87	0.86	0.61	1.72
Enterprise performance	5	3.23	1.09	0.86	0.87	0.86	0.55	00.0
Market orientations	4	3.07	1.23	0.82	0.82	0.82	0.53	1.41
Networking	6	3.28	0.78	0.95	0.95	0.95	0.74	1.43
Sales orientations	4	3.29	1.11	0.92	0.92	0.92	0.74	1.36

**Notes:** Cronbach’s alpha (CA); standard deviation (SD); composite reliability (CR); Dillon-Goldstein’s rho (DG rho); variance inflation factors (VIFs); average variance extracted (AVE)

**Source:** Table was created by authors

for further analysis, but items with loadings more than 0.5 should be retained, according to Chin (1998). All loadings of indicators in Table 4 were more than the total cross-loadings. This proved that discriminant validity existed. Each indicator’s AVE ought to be higher than the construct’s highest squared correlation with another. According to the Fornell–Larcker criteria, the results of all variables met this requirement. Furthermore, the heterotrait–monotrait ratio, like the disattenuated construct score, studies the association between constructs. It was established that there was no proof of discriminant validity based on the 0.9 thresholds.

*Path analysis*

Table 5 and Figure 2 portray the results of path analysis. The coefficient value for the effect of entrepreneurial skills on entrepreneurial competency (H1) was 0.42, with a significance level of 0.000. This suggested that entrepreneurial skills had a favourable impact on entrepreneurial competency. However, the  $f^2$  value of 0.22 indicated that entrepreneurial skills had a minor effect on entrepreneurial competency among MSMEs.

The  $f^2$  value of 0.22 indicates that entrepreneurial skills have a moderate effect on MSMEs’ entrepreneurial competence. The  $p$ -value for the correlation between entrepreneurial skills and firm performance (H2) was 0.05, and the corresponding coefficient value was 0.14. This indicated a positive and statistically significant influence of entrepreneurial abilities on business success, with an  $f^2$  value of 0.02 suggesting little or minimal effect.

Furthermore, the market orientation coefficient ( $b = 0.03$ ) has a statistically insignificant ( $p$ -value of 0.56) influence on entrepreneurial ability (H3). The  $f^2$  score of 0.00 suggested that market orientation had minor or negligible influence on entrepreneurial ability. Furthermore, the  $p$ -value for the path coefficient for the influence of market orientation on company performance (H4) was 0.42. In other words, with an  $f^2$  value of 0.00, market orientation had statistically negligible influence on company performance. Furthermore, the  $p$ -value for the path coefficient for the influence of market orientation on company performance (H4) was 0.42. In other words, with an  $f^2$  value of 0.00, market orientation had a positive but statistically negligible influence on company performance.

Also, with an  $f^2$  value of 0.00, the sales orientation coefficient ( $b = -0.03$ ) has statistically a non-significant ( $p = 0.58$ ) effect on entrepreneurial abilities (H5). Results indicated that a sales orientation contributed very little to one’s capacity to be an entrepreneur. For the hypothesis that sales orientation affects company performance (H6), the path coefficient value ( $-0.01$ ) with a statistically non-significant  $p$ -value of 0.84. It was said that sales

**Table 4.** Reliability and validity

Items	EEnt_Compt	Ent_Skills	Entrp_Perf	Mrkt_Ort	Netwrk	Sal_Ort
Ent_Compt1	<i>0.83</i>	0.48	0.46	0.24	0.46	0.20
Ent_Compt2	<i>0.84</i>	0.48	0.46	0.27	0.40	0.19
Ent_Compt3	<i>0.85</i>	0.44	0.49	0.26	0.46	0.23
Ent_Compt4	<i>0.87</i>	0.49	0.45	0.31	0.45	0.22
Ent_Skills1	0.33	<i>0.62</i>	0.29	0.30	0.22	0.37
Ent_Skills2	0.44	<i>0.81</i>	0.37	0.33	0.32	0.33
Ent_Skills3	0.44	<i>0.77</i>	0.31	0.32	0.25	0.33
Ent_Skills4	0.51	<i>0.90</i>	0.39	0.38	0.31	0.30
Entrp_Perf1	0.42	0.35	<i>0.78</i>	0.27	0.48	0.18
Entrp_Perf2	0.43	0.31	<i>0.75</i>	0.22	0.47	0.17
Entrp_Perf3	0.45	0.35	<i>0.81</i>	0.26	0.49	0.17
Entrp_Perf4	0.40	0.32	<i>0.74</i>	0.21	0.47	0.22
Entrp_Perf5	0.33	0.30	<i>0.62</i>	0.21	0.38	0.10
Mrkt_Ort1	0.22	0.28	0.23	<i>0.71</i>	0.19	0.33
Mrkt_Ort2	0.24	0.32	0.18	<i>0.68</i>	0.25	0.33
Mrkt_Ort3	0.23	0.31	0.23	<i>0.73</i>	0.22	0.26
Mrkt_Ort4	0.23	0.33	0.27	<i>0.79</i>	0.27	0.37
Netwrk1	0.40	0.29	0.54	0.28	<i>0.88</i>	0.21
Netwrk2	0.50	0.37	0.60	0.32	<i>0.96</i>	0.25
Netwrk3	0.48	0.34	0.53	0.24	<i>0.85</i>	0.22
Netwrk4	0.47	0.32	0.53	0.28	<i>0.86</i>	0.20
Netwrk5	0.43	0.29	0.50	0.28	<i>0.80</i>	0.18
Netwrk6	0.42	0.24	0.50	0.25	<i>0.81</i>	0.17
Sal_Ort1	0.24	0.40	0.23	0.41	0.20	<i>0.98</i>
Sal_Ort2	0.20	0.34	0.18	0.38	0.20	<i>0.78</i>
Sal_Ort3	0.22	0.35	0.19	0.36	0.22	<i>0.86</i>
Sal_Ort4	0.19	0.34	0.19	0.37	0.21	<i>0.80</i>
<i>Fornell–Larcker criterion</i>						
Ent_Compt	<i>0.85</i>					
Ent_Skills	0.56	<i>0.78</i>				
Entrp_Perf	0.55	0.44	<i>0.74</i>			
Mrkt_Ort	0.32	0.43	0.31	<i>0.73</i>		
Netwrk	0.52	0.36	0.62	0.32	<i>0.86</i>	
Sal_Ort	0.25	0.42	0.23	0.44	0.24	<i>0.86</i>
<i>Heterotrait–monotrait ratio</i>						
Ent_Compt	–					
Ent_Skills	0.55	–				
Entrp_Perf	0.55	0.44	–			
Mrkt_Ort	0.32	0.43	0.31	–		
Netwrk	0.52	0.35	0.62	0.32	–	
Sal_Ort	0.25	0.43	0.23	0.44	0.24	–

**Notes:** Cronbach's alpha (CA); standard deviation (SD); composite reliability (CR); variance inflation factors (VIF); Dillon-Goldstein's rho (DG rho); average variance extracted (AVE) The italic numbers in the matrix above are item loadings, whereas the others are cross-loadings

**Source:** Table was created by authors

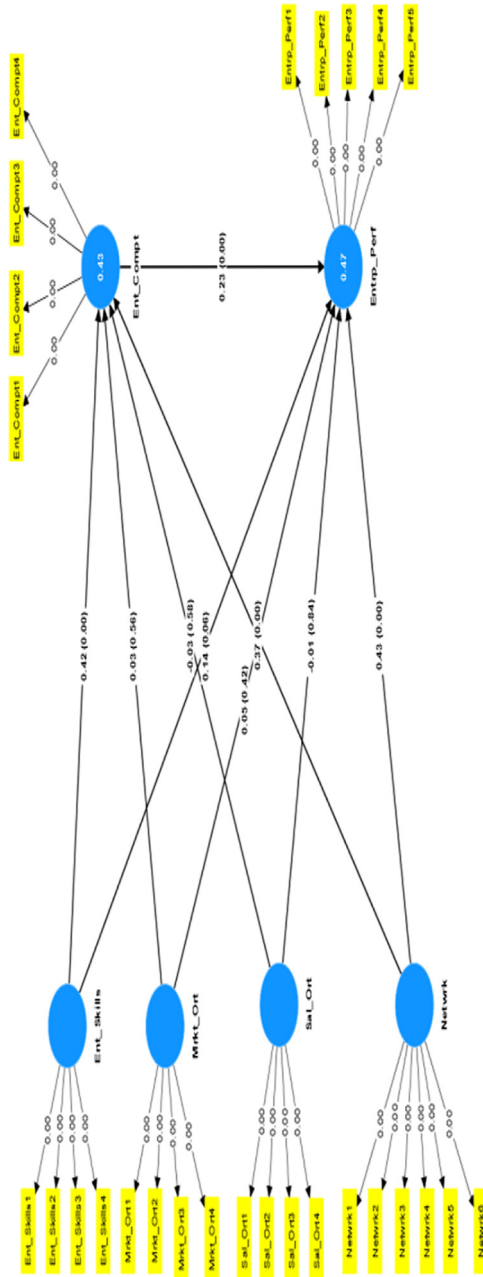
orientation negatively influences enterprise performance with a statistically negligible  $p$ -value. On the other hand, the  $f^2$  value of 0.00 had an almost no influence on sales orientation and company performance. Aside from that, the influence of networking ( $b = 0.37$ ) on entrepreneurial ability ( $p$ -value 0.00) is also significant; hence,  $H7$  is accepted with an  $f^2$

**Table 5.** Path analysis

Hypothesis	Coefficient	Std	t-value	CI		Sig.	Decision	r <sup>2</sup>	f <sup>2</sup>
				IL2.5%	IL97.5%				
H1 Ent_skills → ent_compt	0.42	0.05	4.03	0.10	0.31	0.00	Accept	0.43	0.22
H3 Mrkt_ort → ent_compt	0.03	0.04	8.19	0.28	0.45	0.56	Reject		0.00
H5 Sal_ort → ent_compt	-0.03	0.06	2.25	0.02	0.24	0.58	Reject		0.00
H7 Netwtk → ent_compt	0.37	0.05	0.96	-0.05	0.13	0.00	Accept		0.20
H2 Ent_skills → entrp_perf	0.14	0.05	1.01	-0.05	0.13	0.05	Accept	0.47	0.02
H4 Mrkt_ort → entrp_perf	0.05	0.05	7.47	0.27	0.45	0.42	Reject		0.00
H6 Sal_ort → entrp_perf	-0.01	0.05	8.15	0.30	0.49	0.84	Reject		0.00
H8 Netwtk → entrp_perf	0.43	0.05	0.15	-0.11	0.09	0.00	Accept		0.25
H9 Ent_compt → entrp_perf	0.23	0.05	0.01	-0.10	0.09	0.00	Accept		0.06

**Notes:** Market orientation (MO); entrepreneurial skills (ES); networking (NE); sales orientation (SO); entrepreneurial competencies (EC); enterprise performance (EP)

**Source:** Table was created by authors



Source: Figure was created by authors

Figure 2. Results of the proposed model



value of 0.20. Results indicated that networking impacted entrepreneurial ability somewhat. This result was supported by a  $p$ -value of 0.00 for the path coefficient value of 0.43 for the effect of networking on enterprise performance (H8). The  $f^2$  score was moderate at 0.25, indicating that networking had a sizable impact on enterprise performance. The path coefficient ( $b = 0.23$ ) values show that enterprise competency is statistically significant ( $p = 0.000$ ) effect on enterprise performance with an  $f^2$  value of 0.06 (H9). This proved that the ability to start a business has no bearing on its success.

With an  $r^2$  of 0.43, entrepreneurial competencies such as entrepreneurial skills, market orientation, sales orientation and networking can explain 43% of the variation in entrepreneurial ability. Aside from this conclusion, the  $r^2$  value for enterprise performance is 0.47, indicating that market orientation, entrepreneurial skills, networking, sales orientation and entrepreneurial competency can account for 47% of the variation in MSMEs performance.

*Mediating effects*

Table 6 shows the results of indirect coefficients,  $p$ -values and confidence ranges for the mediating effects of entrepreneurial competencies. The findings show that entrepreneurial abilities have a favourable indirect influence ( $p$ -value < 0.05) on MSMEs’ success (5% significance level). This demonstrates a mediating influence of entrepreneurial competencies on the link between entrepreneurial skills and MSMEs’ performance (HM1). The findings show that networking has a favourable indirect effect ( $p$ -value < 0.05) on MSMEs’ performance (5% level of significance). It demonstrates that entrepreneurial abilities mediate the link between networking and MSMEs’ success (HM2). The findings show that market orientation has a favourable indirect influence ( $p$ -value < 0.05) on MSMEs’ performance (5% significance level). This demonstrates that market orientation does not influence the link between entrepreneurial ability and MSMEs’ success (HM3). The final study shows that sales orientation has a negative indirect influence ( $p$ -value < 0.05) on MSMEs’ performance (5% level of significance). As a result, there is no evidence of a mediation impact of entrepreneurial skill on the connection between sales orientation and MSMEs’ performance (HM4).

**Discussion**

The sole aim of research manuscript is to investigate both the direct and indirect effect of entrepreneurs’ knowledge, skills and competencies on the performance of MSME operating in Upper Sindh, Pakistan. There is little doubt that entrepreneurial skills are critical for low-pay families who depend on largely on MSMEs for revenue. Hence, this research study investigated the impact of entrepreneurial competencies and enterprise (MSMEs)

**Table 6.** Mediating effects

Path		Beta	CI-min	CI-max	Sig.	Decision
HM-1	ES → EC → EP	0.10	0.04	0.16	0.00	Mediation
HM-2	MO → EC → EP	0.01	-0.02	0.04	0.58	No mediation
HM-3	SO → EC → EP	-0.01	-0.04	0.02	0.61	No mediation
HM-4	NE → EC → EP	0.09	0.03	0.14	0.00	Mediation

**Notes:** Entrepreneurial skills (ES), market orientation (MO), sales orientation (SO), networking (NE), entrepreneurial competencies (EC), enterprise performance (EP)

**Source:** Table was created by authors

performance. This study explored that most entrepreneurial skills had a favourable influence on entrepreneurial competencies, consistent with previous research (Teece, 2012; Phelan and Sharpley, 2012). The findings also demonstrated a beneficial impact of entrepreneurial abilities on the performance of an enterprise, which was consistent with previous research (Chandler and Jansen, 1992; Lerner and Almor, 2002; Bird, 1995; Cooper, 1994; Mitchelmore and Rowley, 2010). The link between entrepreneurial skills and entrepreneurial competencies was both substantial and beneficial. This outcome was consistent with previous research attempts made by Teece (2012) and Phelan and Sharpley (2012). The association between entrepreneurial abilities and firm performance was also found to have a beneficial influence. This conclusion supported RBV and earlier research that stated entrepreneurial competencies were intangible and significant characteristics for firms to attain exceptional performance (Ahmad *et al.*, 2010; Barney, 1991; Grant, 1991; Gerli *et al.*, 2011; Al-Mamun *et al.*, 2016; Tehseen and Ramayah, 2015; Mitchelmore and Rowley, 2013). Following that, the findings revealed a favourable influence of networking on entrepreneurial competencies, extending the work of Bird (1995) and Ahmad *et al.* (2010). Along with this result, a positive effect of networking on the performance of enterprises was also found. These networking results show that MSMEs' owners attach significant importance to networking. This conclusion revealed that market orientation, entrepreneurial skills and networking were further entrepreneurial competencies that improved MSMEs' success, according to the RBV and prior research (Barney, 1991; Baum and Locke, 2004; Grant, 1991; Gerli *et al.*, 2011; Narver and Slater, 1990).

The association between market orientation and entrepreneurial skills was shown to be both insignificant and unimportant. This discovery contradicts the findings of numerous other studies (Chandler and Jansen, 1992; Bird, 1995; Cooper, 1994; Mitchelmore and Rowley, 2010; Lerner and Almor, 2002). The reason for this discrepancy with prior research lies in the fact that a significant number of MSMEs owners, situated in the Upper Sindh region, primarily engage in selling their products within local markets. Consequently, it is likely that these owners do not possess surplus products to distribute in more distant markets. There was an insignificant relation between enterprise performance and market orientation. This discovery contradicts previous research (Boso *et al.*, 2013; Baker and Sinkula, 2009; Morgan *et al.*, 2009). The underlying cause of this conflict can be attributed to a deficiency in understanding and aligning with the preferences and requirements of customers in the local markets, thereby resulting in constrained performance. Furthermore, this study discovered that sales orientation had a minor influence on entrepreneurial abilities. This study's findings revealed that a sales-oriented strategy was beneficial for MSMEs and salesperson effectiveness (Wachner *et al.*, 2009).

Ultimately, discoveries depict a huge, backhanded impact of networking and entrepreneurial skills on big business execution. At the same time, market orientation and sales orientation have adverse and statistically insignificant effects on the performance of the enterprise. This paper's findings suggest that the entrepreneurial competencies assessed here are valuable, rare and imperfectly imitable resources since they are not readily available to all business owners. We propose that the talents of the performance of SMEs, as outlined by RBV, are a key differentiator in the performance of SMEs (Crook *et al.*, 2008; Barney, 1991; Ketchen *et al.*, 2007).

### **Conclusion and implications**

The purpose of this research was to examine how entrepreneurial skills affect the success of small businesses owned by people with low incomes. This research contributed to the RBV by exploring the connection between entrepreneurial skills and firm performance. This study

contributes to the literature by looking at the direct and indirect links between entrepreneurial skills, sales orientation, market orientation and networking on firm success. The mediation test and path analysis results confirmed that entrepreneurial skills, entrepreneurial competencies and networking on business performance were firm resources, indirectly and directly influencing performance. Furthermore, networking was a one-of-a-kind resource that affected enterprise performance via entrepreneurial competencies. Even though this conclusion violates the stated premise, it has contributed to the RBV literature. In developing countries (like Pakistan), the portion of SMEs to GDP is somewhere in the range of 70%–95% of all out business (Hashim *et al.*, 2018). However, it is widely established that the failure rate of MSMEs is exceptionally high and practically everywhere in Pakistan. To address the high failure rate and foster the growth of MSMEs, policymakers worldwide implement various assistance measures. The government must prepare to organize trade fairs, seminars and road shows on certain services/products to which MSMEs' entrepreneurs, consumers and suppliers might be invited to ease their connections.

In the Pakistani context, most research studies have reported that owners of MSMEs face fewer financing opportunities for their organizations. Large banks prefer to lend to big organizations and governments. However, the Government of Pakistan has taken some initiatives to help MSMEs, like establishing the Small and Medium Development Authority and MSE bank. But their functioning is limited to big cities; therefore, they cannot offer their services in remote areas like cities located in Upper Sindh, owning limited financial and human resources. Entrepreneurship-promoting educational institutions should be part of these collaborative initiatives, as entrepreneurial universities play a significant role in transferring knowledge (Afzal *et al.*, 2018). Therefore, educational institutes in Upper Sindh should be focused on promoting entrepreneurship education. Business Incubation Centres should also be established among all educational institutes in Upper Sindh. Finally, as climate change is an issue in Pakistan, Soomro *et al.* (2020) suggests that MSMEs should work on providing environmentally friendly products to their clients.

#### *Theoretical implications*

Some theoretical implications are offered by this investigation. Firstly, the theoretical understanding of the relationship between entrepreneurial knowledge, skills and competencies and the performance of MSMEs is substantially advanced by this study. This research contributes to theoretical frameworks for developing nations by experimentally investigating these effects of competences and skills on MSME performance. The second important thing is that this study added to the literature by looking at how entrepreneurial skills, market orientation, sales orientation and networking affect the performance of MSMEs in both direct and indirect ways. The path analysis and mediation test results confirmed that the firms' resources – their entrepreneurial competencies, skills and market orientation – had an indirect and direct impact on performance. Networking, as a last point, was a special asset that affected the success of MSMEs via entrepreneurial skills. To sum up, these findings added to the body of knowledge on RBV as it pertains to a developing nation.

#### *Practical implications*

There are some practical implications of this study. It has highlighted, for example, the significance of network competence as one of the potential answers to managerial difficulties such as employment, low productivity, a higher failure rate of SMEs and low contributions to the GDP of the country. By developing network competence, entrepreneurs/managers of SMEs can be beneficial from access to numerous key resources, like the most recent market information, technology, industry trends, consumer wants and other expertise.

Entrepreneurs in Pakistan's MSMEs sector would benefit greatly from training programs designed specifically for their requirements. Governmental organisations in Pakistan should encourage low-income women to pursue economic independence by enacting policies and implementing training programmes that improve their initiative, creativity, autonomy and entrepreneurial skills.

#### *Limitations and future directions*

In terms of limitations, this research study has not considered other potential factors that impact performance of business. Furthermore, this study was confined to MSMEs in Upper Sindh, Pakistan, and cannot be generalized to different types of businesses in other countries. Future research should add contextual characteristics such as business strategy and culture to forecast the performance of MSMEs using a more diversified sample. Future studies can also examine entrepreneurial behaviour in diverse economic, age and gender groups across nations to learn more about its causes and repercussions. Finally, statistical analysis, namely, SEM, has been used to produce these findings. When evaluating the effect of competencies and abilities on MSMEs' performance, future research might take a dual approach, using both SEM and artificial neural networks. This would provide more reliable and credible results.

#### **References**

- Abdullah, Y.A. and Mansor, M.N.B. (2018), "The moderating effect of business environment on the relationship between entrepreneurial skills and small business performance in Iraq", *International Journal of Entrepreneurship*, Vol. 22 No. 4, pp. 1-11.
- Abidin, Z.Z., Rahayu, S., Pamungkas, M.G.W.E.N., Handayani, S.R. and Utami, R.B. (2022), "Entrepreneurial knowledge, market orientation, digitalization, and entrepreneurial competencies: evidence from SMEs in Indonesia", *Journal of Economics, Finance and Accounting Studies*, Vol. 4 No. 2, pp. 91-103, doi: [10.32996/jefas.2022.4.2.8](https://doi.org/10.32996/jefas.2022.4.2.8).
- Abrokwah-Larbi, K. (2024), "The nexus between customer value analytics and SME performance in emerging market: a resource-based view perspective", *Journal of Global Entrepreneurship Research*, Vol. 14 No. 1, p. 26, doi: [10.1007/s40497-024-00396-2](https://doi.org/10.1007/s40497-024-00396-2).
- Abu-Rumman, A., Al-Shra'ah, A.E.M., Al-Madi, F. and Alfalah, T. (2020), "Entrepreneurial networks, entrepreneurial orientation, and performance of small and medium enterprises: are dynamic capabilities the missing link?" *Journal of Innovation and Entrepreneurship*, doi: [10.21203/rs.3.rs-129772/v1](https://doi.org/10.21203/rs.3.rs-129772/v1).
- Afwa, A., Djajasinga, N.D., Sudirman, A., Sari, A.L. and Adnan, N.M. (2021), "Raising the tourism industry as an economic driver", Proceedings of the 2nd Annual Conference on Blended Learning, Educational Technology and Innovation (ACBLETI 2020) Raising, 560(Acbleti 2020), pp. 118-123.
- Afzal, S., Jami, H. and National Institute of Psychology, Quaid-i-Azam University, Islamabad (2018), "Prevalence of academic procrastination and reasons for academic procrastination in university students", *Journal of Behavioural Sciences*, Vol. 28 No. 1, available at: [https://pu.edu.pk/images/journal/doap/PDF-FILES/04\\_v28\\_1\\_18.pdf](https://pu.edu.pk/images/journal/doap/PDF-FILES/04_v28_1_18.pdf)
- Agarwal, S., Kant, R. and Shankar, R. (2022), "Exploring sustainability balanced scorecard for performance evaluation of humanitarian organizations", *Cleaner Logistics and Supply Chain*, Vol. 3, p. 100026, doi: [10.1016/j.clscn.2021.100026](https://doi.org/10.1016/j.clscn.2021.100026).
- Ahmad, N.H., Halim, H.A. and Zainal, S.R.M. (2010), "Is entrepreneurial competency the silver bullet for SME success in a developing nation?" *International Business Management*, Vol. 4 No. 2, pp. 67-75.

- Ahmad, N.H., Suseno, Y., Seet, P.S., Susomrith, P. and Rashid, Z. (2018), "Entrepreneurial competencies and firm performance in emerging economies: a study of women entrepreneurs in Malaysia", in Ratten, V., Braga, V. and Marques, C. (Eds), *Knowledge, Learning and Innovation, Contributions to Management Science*, Springer, Cham.
- Alam, M.N., Masroor, I., Sultana, A. and Rahman, M.M. (2016), "Impact of entrepreneurial study on small and medium boutique and fashion house in Khulna city", *Khulna University Business Review*, Vol. 11 Nos 1/2, pp. 83-99.
- Albanus, N., Betty, N., Mathuku, P. and Daniel, N. (2022), "Effect of entrepreneurial skills on organizational performance of small and medium enterprises in Nakuru City-Kenya", *International Journal of Economics and Business Administration*, Vol. 10 No. 3, pp. 156-173, doi: [10.35808/ijeba/782](https://doi.org/10.35808/ijeba/782).
- Aldrich, H. and Zimmer, C. (1986), "Entrepreneurship through social networks", *California Management Review*, Vol. 3, pp. 3-23.
- Ali, G.A., Abdullah, H.H. and Gorondutse, A.H. (2019), "The effect of ntrepreneurial orientation, market orientation, total quality management and organizational culture on the SMEs performance: a theoretical framework", *Journal of Business and Retail Management Research*, Vol. 12 No. 1, pp. 26-40.
- Al-Mamun, A., Nawi, N.B.C. and Zainol, N.R.B. (2016), "Entrepreneurial competencies and performance of informal micro-enterprises in Malaysia", *Mediterranean Journal of Social Sciences*, Vol. 7 No. 3, pp. 273-281.
- Ayegba, J.O. and Zhou, L. (2020), "An overview on enterprise networks and company performance", *International Entrepreneurship Review*, Vol. 6 No. 2, pp. 7-16, doi: [10.15678/ier.2020.0602.01](https://doi.org/10.15678/ier.2020.0602.01).
- Baker, W.E. and Sinkula, J.M. (2009), "The complementary effects of market orientation and entrepreneurial orientation on profitability in small businesses", *Journal of Small Business Management*, Vol. 47 No. 4, pp. 443-464, doi: [10.1111/j.1540-627x.2009.00278.x](https://doi.org/10.1111/j.1540-627x.2009.00278.x).
- Barney, J. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99-120, doi: [10.1177/014920639101700108](https://doi.org/10.1177/014920639101700108).
- Barney, J.B. (2001), "Resource-based theories of competitive advantage: a ten-year retrospective on the resource-based view", *Journal of Management*, Vol. 27 No. 6, pp. 643-650, doi: [10.1177/014920630102700602](https://doi.org/10.1177/014920630102700602).
- Baron, R.M. and Kenny, D.A. (1986), "The moderator–mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations", *Journal of Personality and Social Psychology*, Vol. 51 No. 6, p. 1173.
- Baron, R.A. and Markman, G.D. (2003), "Beyond social capital: the role of entrepreneurs' social competence in their financial success", *Journal of Business Venturing*, Vol. 18 No. 1, pp. 41-60.
- Baum, J.R. and Locke, E.A. (2004), "The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth", *Journal of Applied Psychology*, Vol. 89 No. 4, pp. 587-598.
- Bhasin, H. (2023), "Sales orientation – definition and examples", *Marketing91*, available at: [www.marketing91.com/sales-orientation/](http://www.marketing91.com/sales-orientation/) (accessed 28 August 2024).
- Bhutta, N.T. and Ali Shah, S.Z. (2015), "Do behavioral biases impact corporate entrepreneurship, agency cost and firm performance: evidence from developed and developing economies?" *Pakistan Journal of Commerce and Social Sciences*, Vol. 3, pp. 761-798.
- Bird, B. (1995), "Towards a theory of entrepreneurial competency", in Katz, J.A. and Brockhaus, R.H. (Eds), *Advances in Entrepreneurship, Firm Emergence and Growth*, Vol. 2, pp. 51-72.
- Blevins, D.P., Ragozzino, R. and Eckardt, R. (2020), "'Corporate governance' and performance in nonprofit organizations", *Strategic Organization*, Vol. 20 No. 2, pp. 293-317, doi: [10.1177/1476127020921253](https://doi.org/10.1177/1476127020921253).

- 
- Boles, J.S., Howard, W.G. and Donofrio, H.H. (2001), "An investigation into the inter-relationships of work-family conflict, family-work conflict and work satisfaction", *Journal of Managerial Issues*, Vol. 13 No. 3, pp. 376-390.
- Boso, N., Story, V.M. and Cadogan, J.W. (2013), "Entrepreneurial orientation, market orientation, network ties, and performance: study of entrepreneurial firms in a developing economy", *Journal of Business Venturing*, Vol. 28 No. 6, pp. 708-727.
- Campbell, B.A., Ganco, M., Franco, A.M. and Agarwal, R. (2012), "Who leaves, where to, and why worry? Employee mobility, entrepreneurship, and effects on source firm performance", *Strategic Management Journal*, Vol. 33 No. 1, pp. 65-87.
- Chandler, G.N. and Jansen, E. (1992), "The founder's self-assessed competence and venture performance", *Journal of Business Venturing*, Vol. 7 No. 3, pp. 223-236.
- Chell, E. (2013), "Review of skill and the entrepreneurial process", *International Journal of Entrepreneurial Behavior and Research*, Vol. 19 No. 1, pp. 6-31.
- Chin, W.W. (1998), "The partial least squares approach to structural equation modelling", *Modern Methods for Business Research*, Vol. 295 No. 2, pp. 295-336.
- Chopdar, J., Paul, N., Korfiatis, and M.D., Lytras. (2022), "Examining the role of consumer impulsiveness in multiple app usage behavior among mobile shoppers" *Journal of Business Research*, Vol. 140, pp. 657-669.
- Christa, U.R. and Kristinae, V. (2021), "The effect of product innovation on business performance during COVID 19 pandemic", *Uncertain Supply Chain Management*, Vol. 9 No. 1, pp. 151-158, doi: [10.5267/j.uscm.2020.10.006](https://doi.org/10.5267/j.uscm.2020.10.006).
- Chu, Y. and Yoon, W. (2021), "Tech start-ups: networking strategies for better performance", *Journal of Business Strategy*, Vol. 42 No. 5, pp. 351-357.
- Cooper, A.C. (1994), "Challenges in predicting new firm performance", *Journal of Business Venturing*, Vol. 8 No. 3, pp. 241-253.
- Crook, T.R., Ketchen, D.J. Jr., Combs, J.G. and Todd, S.Y. (2008), "Strategic resources and performance: a meta-analysis", *Strategic Management Journal*, Vol. 29 No. 11, pp. 1141-1154, doi: [10.1002/smj.703](https://doi.org/10.1002/smj.703).
- Dameshifa, K., Azazi, A., Listiana, E. and Malini, H. (2023), "The influence of entrepreneurial and market orientation on business performance through mediation of innovation capability: implementation of SMEs in Indonesia", *East African Scholars Journal of Economics, Business and Management*, Vol. 6 No. 1, pp. 1-10.
- Dar, M.S., Ahmed, S. and Raziq, A. (2017), "Small and medium-size enterprises in Pakistan: definition and critical issues", *Pakistan Bus. Rev.*, Vol. 19, pp. 46-70.
- Davis, G.F. and Cobb, J. (2010), "Resource dependence theory: past and future", *Research in the Sociology of Organizations*, Vol. 28, pp. 21-42.
- De Arroyabe, J.C.F., Arroyabe, M.F., Fernandez, I. and Arranz, C.F.A. (2023), "Cybersecurity resilience in SMEs. A machine learning approach", *Journal of Computer Information Systems*, pp. 1-17, doi: [10.1080/08874417.2023.2248925](https://doi.org/10.1080/08874417.2023.2248925).
- Dwi, J., Amori, S. and Suryati, T.F. (2022), "Membangun Daya Saing Industri Kecil dengan".
- Dyer, J.H. and Singh, H. (1998), "The relational view: cooperative strategy and sources of interorganisational competitive advantage", *The Academy of Management Review*, Vol. 23 No. 4, pp. 660-679.
- Eisenhardt, K.M. and Martin, J.A. (2000), "Dynamic capabilities: what are they?" *Strategic Management Journal*, Vol. 21 Nos 10/11, pp. 1105-1121.
- Elvina (2020), "Pengaruh Orientasi Kewirausahaan Dan Orientasi Pasar Terhadap Kinerja UMKM", *JSHP: Jurnal Sosial Humaniora Dan Pendidikan*, Vol. 4 No. 1, pp. 46-55.
- Esubalew, A.A. and Raghurama, A. (2020), "The mediating effect of entrepreneurs' competency on the relationship between bank finance and performance of micro, small, and medium enterprises

- (MSMEs)", *European Research on Management and Business Economics*, Vol. 26 No. 2, pp. 87-95, doi: [10.1016/j.iedeen.2020.03.001](https://doi.org/10.1016/j.iedeen.2020.03.001).
- Gerli, F., Gubitta, P. and Tognazzo, A. (2011), "Entrepreneurial competencies and firm performance: an empirical study", VIII International Workshop on Human Resource Management Conference Proceedings, *Seville*.
- Gerschewski, S., Rose, E.L. and Lindsay, V.J. (2015), "Understanding the drivers of international performance for born global firms: an integrated perspective", *Journal of World Business*, Vol. 50 No. 3, pp. 558-575, doi: [10.1016/j.jwb.2014.09.001](https://doi.org/10.1016/j.jwb.2014.09.001).
- Gerschewski, S., Evers, N., Nguyen, A.T. and Froese, F.J. (2020), "Trade shows and SME internationalisation: networking for performance", *Management International Review*, Vol. 60 No. 4, pp. 573-595, doi: [10.1007/s11575-020-00421-y](https://doi.org/10.1007/s11575-020-00421-y).
- Grant, R.M. (1991), "The resource-based theory of competitive advantage: implications for strategy formulation", *California Management Review*, Vol. 33 No. 3, pp. 114-135, doi: [10.2307/41166664](https://doi.org/10.2307/41166664).
- Gruber-Muecke, T. and Hofer, K.M. (2015), "Market orientation, entrepreneurial orientation and performance in emerging markets", *International Journal of Emerging Markets*, Vol. 10 No. 3, pp. 560-571, doi: [10.1108/ijoem-05-2013-0076](https://doi.org/10.1108/ijoem-05-2013-0076).
- Gunawan, A.F. (2024), "The impact of entrepreneurial characteristics and competencies on business performance in the creative industry in Indonesia", *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 18 No. 3, pp. 300-317, doi: [10.1108/apjie-09-2023-0172](https://doi.org/10.1108/apjie-09-2023-0172).
- Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011), "PLS-SEM: indeed, a silver bullet", *Journal of Marketing Theory and Practice*, Vol. 19 No. 2, pp. 139-152.
- Hair, J.F., Ringle, C.M. and Sarstedt, M. (2013), "Partial least squares structural equation modelling: rigorous applications, better results and higher acceptance", *Long Range Planning*, Vol. 46 Nos 1/2, pp. 1-12.
- Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2014), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Sage, Thousand Oaks, CA.
- Halim, F., Sherly, S., Grace, E., Lie, D. and Sudirman, A. (2021), "Analysis of innovation strategies to increase the competitive advantages of ULOS products in Pematangsiantar city", *Jurnal Manajemen Dan Bisnis*, Vol. 10 No. 2, pp. 80-90, doi: [10.34006/jmbi.v10i2.308](https://doi.org/10.34006/jmbi.v10i2.308).
- Hashim, N.A.B., Raza, S. and Minai, M.S. (2018), "Relationship between entrepreneurial competencies and small firm performance: are dynamic capabilities the missing link?" *Academy of Strategic Management Journal*, Vol. 17 No. 2, pp. 1-10.
- Hayton, J. (2015), *Leadership and Management Skills in SMEs*, in Hayton, J. (Ed.), Warwick Business School.
- Hisrich, R. and Peter, M. (2002), *Entrepreneurship*, Mc Graw Hill Higher Education, Boston.
- Hujayanti, D. (2020), "Pengaruh Orientasi Kewirausahaan, Orientasi Pasar Dan Keunggulan Bersaing terhadap Kinerja UMKM Krupuk Di Desa Harjosari Lor Kecamatan Adiwerna Kabupaten Tegal".
- Islam, R., French, E. and Ali, M. (2022), "Evaluating board diversity and its importance in the environmental and social performance of organizations", *Corporate Social Responsibility and Environmental Management*, Vol. 29 No. 5, pp. 1134-1145, doi: [10.1002/csr.2259](https://doi.org/10.1002/csr.2259).
- Ismail, I.J. (2022), "Entrepreneurs' competencies and sustainability of small and medium enterprises in Tanzania; a mediating effect of entrepreneurial innovations", *Cogent Business and Management*, Vol. 9 No. 1, p. 2111036, doi: [10.1080/23311975.2022.2111036](https://doi.org/10.1080/23311975.2022.2111036).
- Jakobsen, M. and Jensen, R. (2015), "Common method bias in public management studies", *International Public Management Journal*, Vol. 18 No. 1, pp. 3-30.

- 
- Jaramillo, F., Ladik, D.M., Marshall, G.W. and Mulki, J.P. (2007), "A meta-analysis of the relationship between sales orientation-customer orientation (SOCO) and salesperson job performance", *Journal of Business and Industrial Marketing*, Vol. 22 No. 5, pp. 302-310.
- Jaworski, B.J. and Kohli, A.K. (1993), "Market orientation: antecedents and consequences", *Journal of Marketing*, Vol. 57 No. 3, pp. 53-70.
- Jogaratnam, G. (2017), "How organizational culture influences market orientation and business performance in the restaurant industry", *Journal of Hospitality and Tourism Management*, Vol. 31, pp. 211-219, doi: [10.1016/j.jhtm.2017.03.002](https://doi.org/10.1016/j.jhtm.2017.03.002).
- John, E. (2024), "Show me your networks and I'll tell you your future: entrepreneurial networks and SME performance", *Cogent Business and Management*, Vol. 11 No. 1, p. 2363433, doi: [10.1080/23311975.2024.2363433](https://doi.org/10.1080/23311975.2024.2363433).
- Jordan, P.J. and Troth, A.C. (2020), "Common method bias in applied settings: the dilemma of researching in organizations", *Australian Journal of Management*, Vol. 45 No. 1, pp. 3-14.
- Julyanthy, P.D.E. and Sudirman, A. (2021), "Kewirausahaan Masa Kini", *Media Sains Indonesia*.
- Ketchen, D., Hult, T. and Slater, S. (2007), "Toward greater understanding of market orientation and the resource-based view", *Strategic Management Journal*, Vol. 28 No. 9, pp. 961-964.
- Khaleeq, K. (2018), "CCI defers approval of census results until elections", *Dawn News*, available at: [www.dawn.com/news/1410447](http://www.dawn.com/news/1410447) (accessed 4 September 2022).
- Khan, N.R., Awang, M. and Zulkifli, C.M. (2013), "Small and medium enterprises and human resource practices in Pakistan", *International Journal of Asian Social Science*, Vol. 3 No. 2, pp. 460-471, available at: [www.aessweb.com/pdf-files/460-471.pdf](http://www.aessweb.com/pdf-files/460-471.pdf)
- Kisubi, M.K., Aruo, F., Wakibi, A., Mukyala, V. and Ssenyange, K. (2022), "Entrepreneurial competencies and performance of Ugandan SMEs: the mediating role of firm capabilities", *Cogent Business and Management*, Vol. 9 No. 1, p. 2115622, doi: [10.1080/23311975.2022.2115622](https://doi.org/10.1080/23311975.2022.2115622).
- Kock, N. (2015), "Common method bias in PLS-SEM", *International Journal of e-Collaboration*, Vol. 11 No. 4, pp. 1-10, doi: [10.4018/ijec.2015100101](https://doi.org/10.4018/ijec.2015100101).
- Kohli, A.K. and Jaworski, B.J. (1990), "Market orientation: the construct, research propositions, and managerial implications", *Journal of Marketing*, Vol. 54 No. 2, pp. 1-18, doi: [10.1177/002224299005400201](https://doi.org/10.1177/002224299005400201).
- Kohli, A.K., Jaworski, B.J. and Kumar, A. (1993), "MARKOR: a measure of market orientation", *Journal of Marketing Research*, Vol. 30 No. 4, pp. 467-477.
- Kotler, P., Kartajaya, H. and Setiawan, I. (2021), *Marketing 5.0: Technology for Humanity*, John Wiley and Sons.
- Kushwaha, T., Loya, A.R., Jain, P. and Kukrety, D.B. (2021), "Unique application of sales-orientation customer-orientation (SOCO) scale as a behavioral assessment tool to predict future orientation of students: a study", *Marketing Education Review*, Vol. 32 No. 3, pp. 265-279, doi: [10.1080/10528008.2021.1937227](https://doi.org/10.1080/10528008.2021.1937227).
- Kutzhanova, N., Lyons, T.S. and Lichtenstein, G.A. (2009), "Skill-based development of entrepreneurs and the role of personal and peer group coaching in enterprise development", *Economic Development Quarterly*, Vol. 23 No. 3, pp. 193-210.
- Kyndt, E. and Baert, H. (2015), "Entrepreneurial competencies: assessment and predictive value for entrepreneurship", *Journal of Vocational Behavior*, Vol. 90 No. 1, pp. 13-25.
- Lerner, M. and Almor, T. (2002), "Relationships among strategic capabilities and the performance of women-owned small ventures", *Journal of Small Business Management*, Vol. 40 No. 2, pp. 109-125.
- Lestari, E.D., Hamid, N.A., Shamsuddin, R., Kurniasari, F. and Yaacob, Z. (2024), "Investigating the factors of SMEs' business resilience in the post-pandemic crisis of COVID-19 with technology



- adoption as a quasi-moderator: a multigroup analysis of Indonesian and Malaysian SMEs”, *Cogent Business and Management*, Vol. 11 No. 1, p. 2301135, doi: [10.1080/23311975.2023.2301135](https://doi.org/10.1080/23311975.2023.2301135).
- Liao, S.H., Chang, W.J., Wu, C.C. and Katrichis, J. (2011), “A survey of market orientation research (1995–2008)”, *Industrial Marketing Management*, Vol. 40 No. 2, pp. 301-310.
- Linan, F. (2008), “Skill and value perceptions: how do they affect entrepreneurial intentions?” *International Entrepreneurship and Management Journal*, Vol. 4 No. 3, pp. 257-272.
- Lubis, N.W. (2022), “Resource based view (RBV) in improving company strategic capacity”, *Research Horizon*, Vol. 2 No. 6, pp. 587-596, doi: [10.54518/rh.2.6.2022.587-596](https://doi.org/10.54518/rh.2.6.2022.587-596).
- Madzimore, J. (2019), “The influence of strategic networks and logistics integration on firm performance among small and medium enterprises”, *The Southern African Journal of Entrepreneurship and Small Business Management*, Vol. 11 No. 1, pp. 1-7, doi: [10.4102/sajesbm.v11i1.282](https://doi.org/10.4102/sajesbm.v11i1.282).
- Mago, S. and Modiba, F.S. (2022), “Does informal finance matter for micro and small businesses in Africa?” *Small Business International Review*, Vol. 6 No. 1, p. e415, doi: [10.26784/sbir.v6i1.415](https://doi.org/10.26784/sbir.v6i1.415).
- Mamun, M. and Griffiths, M.D. (2019), “The assessment of internet addiction in Bangladesh: why are prevalence rates so different?”, *Asian Journal of Psychiatry*, Vol. 40, pp. 46-47, doi: [10.1016/j.ajp.2019.01.017](https://doi.org/10.1016/j.ajp.2019.01.017).
- Man, T.W.Y. (2001), “Entrepreneurial competencies and the performance of small and medium enterprises in the Hong Kong services”, Unpublished Doctoral Dissertation, Hong Kong Polytechnic University.
- Man, T.W.Y., Lau, T. and Chan, K.F. (2002), “The competitiveness of small and medium enterprises: a conceptualization with focus on entrepreneurial competencies”, *Journal of Business Venturing*, Vol. 17 No. 2, pp. 123-142, doi: [10.1016/S0883-9026\(00\)00058-6](https://doi.org/10.1016/S0883-9026(00)00058-6).
- Man, T.W., Lau, T. and Snape, E. (2008), “Entrepreneurial competencies and the performance of small and medium enterprises: an investigation through a framework of competitiveness”, *Journal of Small Business and Entrepreneurship*, Vol. 21 No. 3, pp. 257-276.
- Menguc, B. and Auh, S. (2006), “Creating a firm-level dynamic capability through capitalizing on market orientation and innovativeness”, *Journal of the Academy of Marketing Science*, Vol. 34 No. 1, pp. 63-73.
- Minai, M.S., Ibrahim, Y. and Law, K.K. (2012), “Entrepreneurial network in Malaysia: are there any differences across ethnic group?” *Journal of Business and Policy Research*, Vol. 7 No. 1, pp. 178-192.
- Mitchelmore, S. and Rowley, J. (2010), “Entrepreneurial competencies: a literature review and development agenda”, *International Journal of Entrepreneurial Behavior and Research*, Vol. 16 No. 2, pp. 92-111, doi: [10.1108/13552551011026995](https://doi.org/10.1108/13552551011026995).
- Mitchelmore, S. and Rowley, J. (2013), “Entrepreneurial competencies of women entrepreneurs pursuing business growth”, *Journal of Small Business and Enterprise Development*, Vol. 20 No. 1, pp. 125-142.
- Mitchelmore, S., Rowley, J. and Shiu, E. (2014), “Competencies associated with growth of women-led SMEs”, *Journal of Small Business and Enterprise Development*, Vol. 21 No. 4, pp. 588-601.
- Morgan, R.E. and Strong, C.A. (2003), “Business performance and dimensions of strategic orientation”, *Journal of Business Research*, Vol. 56 No. 3, pp. 163-176, doi: [10.1016/s0148-2963\(01\)00218-1](https://doi.org/10.1016/s0148-2963(01)00218-1).
- Morgan, N.A., Vorhies, D.W. and Mason, C.H. (2009), “Market orientation, marketing capabilities, and firm performance”, *Strategic Management Journal*, Vol. 30 No. 8, pp. 909-920.
- Morgan, N.A., Clark, B.H. and Vorhies, D.W. (2019), “Market-oriented culture and customer feedback processes”, *Handbook on Customer Centricity*, Edward Elgar Publishing.

- Moura-Leite, R.C., Padgett, R.C. and Galán, J.I. (2011), “Stakeholder management and nonparticipation in controversial business”, *Business and Society*, Vol. 53 No. 1, pp. 45-70, doi: [10.1177/0007650310395547](https://doi.org/10.1177/0007650310395547).
- Mubeen, A., Nisar, Q.A., Patwary, A.K., Rehman, S. and Ahmad, W. (2023), “Greening your business: nexus of green dynamic capabilities, green innovation and sustainable performance”, *Environment, Development and Sustainability*, Vol. 26 No. 9, pp. 22747-22773, doi: [10.1007/s10668-023-03574-6](https://doi.org/10.1007/s10668-023-03574-6).
- Muniarty, P., Bairizki, A., Sudirman, A., Wulandari, Anista, J.S.A., Satriawan, D.G., Putro, Suryati, E., Suyatno, A., Setyorini, R., Putra, S., Nugroho, L., Nurfadilah, D. and Samidi, S. (2021), “Kewirausahaan. Widina Bhakti Persada”.
- Mwangi, R.W. (2020), “Credit, entrepreneurship training and performance of micro and small enterprises in Nakuru county, Kenya”, Doctoral dissertation, Kenyatta University.
- Nabiswa, F. and Mukwa, J.S. (2017), “Impact of credit financing on human resource development among micro and small enterprises: a case study of Kimilili Sub county, Kenya”, *Asian Journal of Management Science and Economics*, Vol. 4 No. 1, pp. 43-53.
- Najeeb, H.K. (2021), “SMEs: an unloved story”, *International the news*, available at: [www.thenews.com.pk/print/920363-smes-an-unloved-story](http://www.thenews.com.pk/print/920363-smes-an-unloved-story) (accessed 26 August 2024).
- Narver, J.C. and Slater, S.F. (1990), “The effect of a market orientation on business profitability”, *Journal of Marketing*, Vol. 54 No. 4, pp. 20-35, doi: [10.2307/1251757](https://doi.org/10.2307/1251757).
- Nugroho, A.T. (2023), “The influence of entrepreneurial orientation, network, market orientation on small business performance in West Java Province”, *The Eastasouth Management and Business*, Vol. 1 No. 3, pp. 81-89.
- Olabode, O.E., Adeola, O. and Assadinia, S. (2018), “The effect of export market-oriented culture on export performance: evidence from a Sub-Saharan African economy”, *International Marketing Review*, Vol. 35 No. 4, pp. 637-660.
- Olaoye, J.B. (2024), “Entrepreneurship skills acquisition and employability potentials of undergraduates”, *Journal of Advancement in Management and Accounting Research*, Vol. 10 No. 1, p. 10.
- Onstenk, J. (2003), “Entrepreneurship and vocational education”, *European Educational Research Journal*, Vol. 2 No. 1, pp. 74-89.
- Osman, C.A. and Rahim, H.L. (2012), “The relationship of entrepreneurial competencies and entrepreneurial intention of disabled youth: a study on behavioural and managerial competencies”, *Australian Journal of Basic and Applied Sciences*, Vol. 8 No. 23, pp. 62-69.
- Ozcan, P. and Eisenhardt, K.M. (2009), “Origin of alliance portfolios: entrepreneurs, network strategies, and firm performance”, *Academy of Management Journal*, Vol. 52 No. 2, pp. 246-279.
- Panagopoulos, N.G., Rapp, A.A. and Ogilvie, J.L. (2017), “Salesperson solution involvement and sales performance: the contingent role of supplier firm and customer–supplier relationship characteristics”, *Journal of Marketing*, Vol. 81 No. 4, pp. 144-164, doi: [10.1509/jm.15.0342](https://doi.org/10.1509/jm.15.0342).
- Park, T. and Rhee, J. (2012), “Antecedents of knowledge competency and performance in born globals”, *Management Decision*, Vol. 50 No. 8, pp. 1361-1381.
- Penrose, E.T. (1959), *The Theory of the Growth of the Firm*, Oxford University Press, Oxford.
- Pepple, G.J. and Enuoh, R.O. (2020), “Entrepreneurial competencies: a required skill for business performance”, *European Journal of Business and Innovation Research*, Vol. 8 No. 3, p. 5061.
- Phelan, C. and Sharpley, R. (2012), “Exploring entrepreneurial skills and competencies in farm tourism”, *Local Economy: The Journal of the Local Economy Policy Unit*, Vol. 27 No. 2, pp. 103-118.

- Piperopoulos, P. and Dimov, D. (2015), "Burst bubbles or build steam? Entrepreneurship education, entrepreneurial self-efficacy, and entrepreneurial intentions", *Journal of Small Business Management*, Vol. 53 No. 4, pp. 970-985.
- Prifti, R. and Alimehmeti, G. (2017), "Market orientation, innovation, and firm performance-an analysis of Albanian firms", *Journal of Innovation and Entrepreneurship*, Vol. 6 No. 1, pp. 1-19.
- Rajendra Prasad, G.R. (2022), "Competencies of entrepreneur improve the performance of entrepreneur and enhance the entrepreneurial ventures", *International Journal of Trend in Scientific Research and Development*, Vol. 6 No. 6, pp. 2047-2053.
- Raju, P.S., Subhash, L. and Crum, M. (2011), "Market orientation in the context of SMEs: a conceptual framework", *Journal of Business Research*, Vol. 64 No. 12, pp. 1320-1326.
- Ratanova, I. and Voroncuka, I. (2021), "The aspects of entrepreneurship and innovation development of SMEs", Proceedings of the 11th Annual International Conference on Industrial Engineering and Operations Management, Singapore, doi: [10.46254/an11.20210223](https://doi.org/10.46254/an11.20210223).
- Raza, S., Minai, M.S., Zain, A.Y.M., Tariq, T.A. and Khuwaja, F.M. (2018), "Dissection of small businesses in Pakistan: issues and directions", *International Journal of Entrepreneurship*, Vol. 22 No. 4, p. 1, available at: [www.abacademies.org/articles/Dissection-of-small-businesses-in-pakistan-issues-and-directions-1939-4675-22-4-186.pdf](http://www.abacademies.org/articles/Dissection-of-small-businesses-in-pakistan-issues-and-directions-1939-4675-22-4-186.pdf)
- Rehman, S.U., Elrehail, H., Nair, K., Bhatti, A. and Taamneh, A. (2021), "MCS package and entrepreneurial competency influence on business performance: the moderating role of business strategy", *European Journal of Management and Business Economics*, Vol. 32 No. 1, pp. 1-23, doi: [10.1108/ejmbe-04-2020-0088](https://doi.org/10.1108/ejmbe-04-2020-0088).
- Reinartz, W., Haenlein, M. and Henseler, J. (2009), "An empirical comparison of the efficacy of covariance-based and variance-based SEM", *International Journal of Research in Marketing*, Vol. 26 No. 4, pp. 332-344.
- Ribeiro, M.A., Adam, I., Kimbu, A.N., Afenyo-Agbe, E., Adeola, O., Domecq, C.F. and De Jong, A. (2021), "Women entrepreneurship orientation, networks and firm performance in the tourism industry in resource-scarce contexts", *Tourism Management*, Vol. 86, p. 104343, doi: [10.1016/j.tourman.2021.104343](https://doi.org/10.1016/j.tourman.2021.104343).
- Richardson, H.A., Simmering, M.J. and Sturman, M.C. (2009), "A tale of three perspectives: examining post hoc statistical techniques for detection and correction of common method variance", *Organizational Research Methods*, Vol. 12 No. 4, pp. 762-800.
- Russo, M.V. and Fouts, P.A. (1997), "A resource-based perspective on corporate environmental performance and profitability", *Academy of Management Journal*, Vol. 40 No. 3, pp. 534-559, doi: [10.5465/257052](https://doi.org/10.5465/257052).
- Saengchai, S., Siriattakul, P. and Jermsittiparsert, K. (2019), "Exploring the link between HR practices, employee motivation, employee empowerment and employee performance in engineering firms of Indonesia", *International Journal of Psychosocial Rehabilitation*, Vol. 23 No. 4, pp. 734-747, doi: [10.37200/ijpr/v23i4/pr190406](https://doi.org/10.37200/ijpr/v23i4/pr190406).
- Sarwoko, E., Surachman, A. and Hadiwidjojo, D. (2013), "Entrepreneurial characteristics and competency as determinants of business performance in SMEs", *Journal of Business and Management*, Vol. 7 No. 3, pp. 31-38.
- Saxe, R. and Weitz, B.A. (1982), "The SOCO scale: a measure of the customer orientation of salespeople", *Journal of Marketing Research*, Vol. 19 No. 3, pp. 343-351.
- Sembing, L.D., Setyawati, A., Indajang, K., Doloksaribu, W.S.A. and Sudirman, A. (2023), "Analysis of increasing the competitiveness of MSME business through entrepreneurial competence, entrepreneurial orientation, and customers relationship management", *FIRM Journal of Management Studies*, Vol. 8 No. 2, p. 250, doi: [10.33021/firm.v8i2.4575](https://doi.org/10.33021/firm.v8i2.4575).
- Soomro, R.B., Mirani, I.A., Ali, M.S. and Marvi, S. (2020), "Exploring the green purchasing behavior of young generation in Pakistan: opportunities for green entrepreneurship", *Asia Pacific Journal*

- of Innovation and Entrepreneurship*, Vol. 14 No. 3, pp. 289-302, doi: [10.1108/apjie-12-2019-0093](https://doi.org/10.1108/apjie-12-2019-0093).
- Sorensen, A. (2018), "Planning history and theory: institutions, comparison, and temporal processes", in Hein, C. (Ed.), *Routledge Handbook of Planning History*, Routledge, London; New York, NY.
- Srilekh, S. and Kapoor, P. (2023), "Impact of entrepreneurial competencies on micro and small enterprises performance in Faridabad: examining the moderating effect of information technology", *Eur. Chem. Bull.*, Vol. 12 No. Special Issue 5, pp. 1357-1364.
- Sukriani, N., Febrina, D. and Dewi, D.S. (2023), "Knowledge, abilities, skills and its impact on business performance of business actors in the culinary sector", *International Journal of Islamic Business and Management Review*, Vol. 3 No. 1, pp. 119-129, doi: [10.54099/ijibmr.v3i1.619](https://doi.org/10.54099/ijibmr.v3i1.619).
- Sumrall, D.A., Eyuboglu, N. and Ahlawat, S.S. (1991), "Developing a scale to measure hospital sales orientation", *Journal of Health Care Marketing*, Vol. 11 No. 4, pp. 39-50.
- Taneja, S. and Toombs, L. (2014), "Putting a face on small businesses: visibility, viability, and sustainability the impact of social media on small business marketing", *Academy of Marketing Studies Journal*, Vol. 18 No. 1, p. 249, available at: [www.questia.com/library/journal/1G1-397455483/putting-a-face-on-small-businesses-visibility-viability](http://www.questia.com/library/journal/1G1-397455483/putting-a-face-on-small-businesses-visibility-viability)
- Teece, D.J. (2012), "Dynamic capabilities: routines versus entrepreneurial action", *Journal of Management Studies*, Vol. 49 No. 8, pp. 1395-1401.
- Teece, D.J. (2014), "The foundations of enterprise performance: dynamic and ordinary capabilities in an (economic) theory of firms", *Academy of Management Perspectives*, Vol. 28 No. 4, pp. 328-352, doi: [10.5465/amp.2013.0116](https://doi.org/10.5465/amp.2013.0116).
- Tehseen, S. and Ramayah, T. (2015), "Entrepreneurial competencies and SMEs business success: the contingent role of external integration", *Mediterranean Journal of Social Sciences*, doi: [10.5901/mjss.2015.v6n1p50](https://doi.org/10.5901/mjss.2015.v6n1p50).
- Tehseen, S., Ramayah, T. and Sajilan, S. (2017), "Testing and controlling for common method variance: a review of available methods", *Journal of Management Sciences*, Vol. 4 No. 2, pp. 142-168.
- Terho, H., Haas, A., Eggert, A. and Ulaga, W. (2012), "It's almost like taking the sales out of selling: towards a conceptualization of value-based selling in business markets", *Industrial Marketing Management*, Vol. 41 No. 1, pp. 174-185.
- Tjahjadi, B., Soewarno, N., Anwar, D.N. and Fairuzi, A. (2024), "Effect of human capital and information capital readiness on business sustainability: do market orientation and business performance matter?" *SAGE Open*, Vol. 14 No. 1, doi: [10.1177/21582440231221320](https://doi.org/10.1177/21582440231221320).
- Toma, J.D., Dubrow, G. and Hartley, M. (2005), "Understanding institutional culture", *ASHE Higher Education Report*, Vol. 31 No. 2, pp. 39-54.
- Tribune, T. (2021), "Efforts on to boost Sindh SMEs competitiveness 2021", available at: <https://intracen.org/node/8630> (accessed 25 August 2024).
- Trisnawati, L.P.P. and Darsana, I.M. (2021), "Peran Human Capital Dan Kompetensi Wirausaha Dalam Mewujudkan Kesuksesan Wirausaha Pasca Pandemi Covid-19 Pada Umkm Di Bali", *Jurnal British*, Vol. 1 No. 2, pp. 60-75.
- Venkatraman, N. and Ramanujam, V. (1986), "Measurement of business performance in strategy research: a comparison of approaches", *The Academy of Management Review*, Vol. 11 No. 4, pp. 801-814.
- Wachner, T., Plouffe, C.R. and Grégoire, Y. (2009), "SOCO's impact on individual sales performance: the integration of selling skills as a missing link", *Industrial Marketing Management*, Vol. 38 No. 1, pp. 32-44.
- Wang, H. and Fang, C.C. (2021), "The influence of corporate networks on competitive advantage: the mediating effect of ambidextrous innovation", *Technology Analysis and Strategic Management*, Vol. 34 No. 8, pp. 946-960, doi: [10.1080/09537325.2021.1934436](https://doi.org/10.1080/09537325.2021.1934436).

Witt, P. (2004), "Entrepreneurs' networks and the success of start-ups", *Entrepreneurship and Regional Development*, Vol. 16 No. 5, pp. 391-412.

World Bank SME Finance (2019), World Bank, available at: [www.worldbank.org/en/topic/sme/finance](http://www.worldbank.org/en/topic/sme/finance)

Yaskun, M., Sudarmiadin, Hermawan, A. and Rahayu, W.P. (2023), "The effect of market orientation, entrepreneurial orientation, innovation and competitive advantage on business performance of Indonesian MSMEs", *Intern. Journal of Profess. Bus. Review*, Vol. 8 No. 4, pp. 1-21.

Yustian, O.R., Suryana, S., Furqon, C. and Hendrayati, H. (2021), "The mediating role of competitiveness between entrepreneurial competence and business success", *Management Science Letters*, Vol. 11, pp. 93-100, doi: [10.5267/j.msl.2020.8.026](https://doi.org/10.5267/j.msl.2020.8.026).

Ziggers, G.W. and Henseler, J. (2009), "Inter-firm network capability: how it affects buyer-supplier performance", *British Food Journal*, Vol. 111 No. 8, pp. 794-810.

#### **Further reading**

Tribune Correspondent (2021), "Efforts on to boost Sindh SMEs competitiveness", available at: <https://tribune.com.pk/story/2327434/efforts-on-to-boost-sindh-smes-competitiveness> (accessed 3 September 2022).

A Questionnaire on Impact of Entrepreneurial Knowledge, Skills, and Competencies on MSME Performance: Evidence from a developing country						
Entrepreneurial Skills	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree	Source
I consider myself very creative	☹	☹	☺	☺	☺	Linan (2008)
I have adequate problem-solving skills	☹	☹	☺	☺	☺	
I possess high level of leadership	☹	☹	☺	☺	☺	
I possess adequate entrepreneurial skill to manage the enterprise	☹	☹	☺	☺	☺	
Market Orientation	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree	Source
I am quick to detect changes in customers' product preferences	☹	☹	☺	☺	☺	Kohli et al. (1993)
I will promote a product even if I am not sure whether it is right for the customer	☹	☹	☺	☺	☺	
I will paint too rosy a picture of my products to make them sound as good as possible	☹	☹	☺	☺	☺	
As the owner of a business, I sell product lines depending on real market needs	☹	☹	☺	☺	☺	
Sales Orientation	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree	Source
I stay alert for weaknesses in a customer's personality so I can use them to put pressure on him/her to buy	☹	☹	☺	☺	☺	Saxe and Weitz (1982)
I will promote a product even if I am not sure whether it is right for the customer	☹	☹	☺	☺	☺	
I will paint too rosy a picture of my products to make them sound as good as possible	☹	☹	☺	☺	☺	
I spend more time trying to persuade a customer to buy than trying to discover his needs	☹	☹	☺	☺	☺	
Networking	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree	Source
I frequently communicate with actual and potential business network partners	☹	☹	☺	☺	☺	Witt (2004)
I have a high number of business network partners.	☹	☹	☺	☺	☺	
My network is very diverse	☹	☹	☺	☺	☺	
My network is very dense	☹	☹	☺	☺	☺	
My network partners frequently provide me new	☹	☹	☺	☺	☺	
I receive extensive support from my network partners	☹	☹	☺	☺	☺	
Entrepreneurial Competencies	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree	Source
I identify goods or services that customers want	☹	☹	☺	☺	☺	Man et al. (2008)
I develop long-term trusting relationships with others	☹	☹	☺	☺	☺	
I negotiate with others	☹	☹	☺	☺	☺	
I recognize and work on my own shortcomings	☹	☹	☺	☺	☺	

Enterprise Performance	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree	Source
Compared to your major competitors, how is your firm's customer satisfaction?						Morgan and Strong (2003)
Compared to your major competitors, how is your firm's competitive position?						
Compared to your major competitors, how is your firm's customer retention?						
Compared to your major competitors, how is your firm's sales growth?						
Compared to your major competitors, how is your firm's return on investment?						

General Information of a Respondent.					
1.1 Gender	Male			Female	
1.2 Marital Status	Single	Married	Divorced	Widowed	
1.3 Level of Education	Undergraduate		Graduation		
	MPhil		PhD		
1.4 Age	20-30 years	31-40 years	41-50 years	51-60 years	61 years & above
1.5 Past Experience	Never attended school		Primary	Secondary	
	Tenth Grade	Twelfth Grade	Graduation	Graduation and higher	
1.6 Business Type	Manufacturing	Reatiling	Wholeslling		Agriculture
	Livestock	Poultry	Services		

Source: Created by authors

Thanks for filling out this questionnaire.

**Corresponding author**

Raheem Bux Soomro can be contacted at: [rb.soomro@salu.edu.pk](mailto:rb.soomro@salu.edu.pk)