

SMEs internationalization in China: Role of entrepreneurial leadership, market and technological turbulence

Xuesongzi Feng*

Universiti Sains Malaysia Email: fengxuesongzi@student.usm.my

Lilis Surienty

Universiti Sains Malaysia Email: lilis@usm.my

Qaisar Iqbal

King Fahd University of Petroleum & Minerals Email: drqiqbal@outlook.com

* Corresponding Author

Abstract

Purpose: Considering the utmost importance of SMEs internationalization for an emerging economy, this study focusses on the mechanisms of entrepreneurial leadership and export performance relationship along with moderating role of technological and environmental uncertainty.

Design/methodology/approach: Data was collected data from 253 SMEs representatives in China. Partial least square-structural equation modeling (PLS-SEM) analysis was conducted to verify the proposed hypothesis.

Findings: The current findings confirm that entrepreneurial leaders significantly and positively affect SMEs export performance. Yet, with increasing levels of technological and environmental uncertainty, the relationship between entrepreneurial leadership and SMEs internationalization weakens.

Research limitations/implications: future studies are recommended to conduct longitudinal approach to explore any potential mechanisms on leadership-export performance relationship. **Originality/value:** To the best of our knowledge, this is first study in its nature to examine the integrated relationship between entrepreneurial leadership, SMEs internationalization, technological and market turbulence in an emerging economy.

Keywords: Internationalization, Sustainability, Transformational leadership, Market turbulence, cross-sectional approach, China

Introduction

Academicians and practitioners are recommending the research on SMEs internationalization owing to their importance in relation to economic growth (Albaz et al., 2020). In line with this, there is an increase in the number of studies related to SMEs internationalization that works as a bridge between entrepreneurship, small businesses and international business (Galkina & Chetty, 2015; Selvarajah et al., 2023). In comparison with large firms, SMEs do not enjoy a



wide portfolio of strategic resources which make it hard for them to get success in international market (Ahmad et al., 2020; Iqbal et al., 2024; Selvarajah et al., 2023). Internationalization facilitates emerging economies SMEs to capitalize on market opportunities (Faroque et al., 2017). Yet, it is widely accepted that market globalization and technological advances drive the internationalization, there is scarcity of research how emerging economies SMEs grab international market share (Aparicio et al., 2021).

On the other side, SMEs in emerging economies face unique challenges in the shape of business life cycles, financing constraints and skill shortages (He Chao Liu Heng, 2019; Iqbal & Piwowar-Sulej, 2023; Mostafiz et al., 2021). Mostly academicians and practitioners focus on the global business operations of multinational enterprises, ignoring the SMEs internationalization phenomenon (Hennart, 2009; Iqbal et al., 2024). In addition SMEs cope with numerous resource constraints such as shortage of skilled workers, inadequacy of financial resources, limited access to information resources (Rogers et al., 2012; Zahoor et al., 2020), inadequate foreign legitimacy (Sapienza et al., 2006) and lack of resilience (Bradley et al., 2006). In conclusion, it is quite challenging for SMEs to penetrate into foreign markets. Nevertheless, an ample research has been conducted to spur SMEs internationalization in the presence of certain resource constraints. Rocha & Pinheiro, (2021) has recommended to explore the individual and organizational level factors spurring export performance of SMEs. Following the narrative of resource-based view, SMEs can gain competitive advantages by creating rare, non-substitutable, valued, and inimitable resources (Özgül & Zehir, 2023). In line with this point of view, leadership with effective attributes are a unique resources for SMEs to accomplish their goals in the context of internationalizations (Özgül & Zehir, 2023; Singh et al., 2020). Effective leadership based on entrepreneurship approach is deemed as necessary to spur internationalization (Igbal et al., 2024; Nguyen & Adomako, 2021; Selvarajah et al., 2023). Entrepreneurial approach is necessary to leapfrog from being local to international firm. According to Dung & Giang, (2022), internationalization requires SMEs to be proactive, risktaker and innovative in approach to enter into international market. According to Junaidu, (2012), leadership behaviours is a strong determinant of the SMEs internationalization in emerging economies. Because of inherent challenges for SMEs in the internal and external market, there is need to develop leadership which is good at steering organizational resources towards creativity, and innovation and ultimately results into enhanced firm performance (Adebayo & Ogunsina, 2011; Isichei et al., 2022). Extant studies concluded with significant positive effect of leadership styles on firms financial and operational performance (Lee, 2008; Piwowar-Sulej & Iqbal, 2023). Accordingly, SMEs need to spur entrepreneurial behaviours in order to grab new business opportunities which are source of competitive advantage in the international market. Entrepreneurial leadership has emerged as the vital resource to champion entrepreneurial behaviours at every level of organization (Iqbal et al., 2020; Renko et al., 2015). Entrepreneurial leaders are quite different from other styles of leadership. Leaders generally drive an organizational group activities towards goal achievement (Renko et al., 2015). It is also different management which concerns about coordination and planning (Johnson & Brennan, 2002). Entrepreneurial leaders have certain attributes to influence and direct the group members performance aligned with organization goals through the recognition and exploitation of entrepreneurial opportunities. Therefore, drawing on RBV theory, authors investigates the "entrepreneurial leadership-SMEs internationalization" relationship.

In line with contingency theory, business performance or internationalization is reliant on the market context where firms are running their business, and one-size-fit-all approach is not viable for every economy (Crespo et al., 2020; Rundh, 2015). There are always more than one approach to tackle a challenges. Yet, its selection is dependent on the circumstances (Ruekert et al., 1985; Xuecheng & Iqbal, 2022b). Accordingly, the more appropriate approach here is to



focus on the specific internal factors and market environment (Crespo et al., 2020; Igbal et al., 2021). From the international business perspective, SMEs internationalization is reliant on the industry structure, market environment, and marketing strategy in order to increase its business performance (Turnbull, 1987). Along with contingency perspective, Dimitratos et al., (2004) has also claimed the vital role of contextual/moderating factors in the SMEs internationalization phenomenon. Based on the contingency theory, extent studies have assessed the firms adaption towards specific attributes such as dynamism, heterogeneity, risk factor and competitive intensity of domestic and international markets (Ju et al., 2018; Martin & Javalgi, 2016). Considering the technological advances and uncertain market behaviour in the shape of Covid-19, this study explore the conditional role of technological and environmental turbulence on the relationship of entrepreneurial leadership with SMEs internationalization. Technological uncertainty focuses on perceived speed and magnitude of change and uncertainty in technology (Iqbal et al., 2021). Environmental uncertainty concerns about intensity and frequency of variation in supply-, demand- and production-chain processes in the market (Aray et al., 2021). Thus, the present works also fills research gap by assessing the moderating impact of technological and environmental uncertainty on the relationship of entrepreneurial leadership with SMEs internationalization.

The present study offers numerous contributions to the literature on internationalization and SMEs. First, this work contributes to the resource-based view theory by assessing the role of entrepreneurial leadership in SMEs internationalization context. Second, this study also enriches contingency theory by examining the conditional role of technological and environmental uncertainty on the entrepreneurial leadership-export performance relationship. Third, the current research extends the literature on entrepreneurial leadership by unravelling its role in SMEs international business domain. Fourth, the present study extends the literature on SMEs internationalization by adding on the emerging economy i.e., evidence from China.

Hypothesis Development

Entrepreneurial leadership and SMEs internationalization

Taking orientation into account, internationalization is classified into inward and outward internationalization. By focusing on outward internationalization, firms aim to increase their sales in foreign markets, develop networking/alliances with foreign players. Through inward internationalization, firms make use of resources such as managerial skills, innovation and technology at hand with help of local partners to enhance their sales in international market (Idris & Saridakis, 2018). The outward internationalization is opportunity oriented in its nature and encourage firms to exploit potential opportunities in the foreign market (Ireland et al., 2001). By nature, the inward internationalization is performance driven, which encourages firm to strengthen their internal capability and optimize their performance (Buckley et al., 2006). Both outward and inward internationalization are integrated in such a way that former could be outcome of the latter one. In this race, SMEs face numerous challenges in the shape of fragile linkages, financing constraints, weak technological innovation, and access to external markets (Ahmad et al., 2020; Iqbal et al., 2020; Khan et al., 2015). Lack of international exposure and fragile institutional, emerging market SMEs also experience a considerable challenge in establishing a central position in international market (Iqbal et al., 2024; Su et al., 2020).

In this study, the internationalization performance is evaluated based on the exporting perspective for two reasons. First, SMEs may adopt exporting as a growth strategy to penetrate into new market, which results into their broader customer based and increase in sales as well (Lu & Beamish, 2001; Pergelova et al., 2019). Second, SMEs need to adopt exporting as growth



strategy in accordance with their limited resources and operations in a small economy (Pergelova et al., 2019). Bearing in mind the vital role of human agency in business growth, a plenty of research has explored the dynamics of leadership in the performance context (Oluwafemi et al., 2020). On one side, effective leaders drive firm innovation propensity whilst lack of educated leadership buffers creativity (Ngibe & Lekhanya, 2019). Hence, it is of no doubt about the crucial role of effective leadership in spurring SMEs international performance. In addition, leaders positively affect firm financial performance and organizational performance (Piwowar-Sulej & Iqbal, 2023; Selvarajah et al., 2023). Along with this line, entrepreneurial leadership emerges as highly critical where individuals or businesses focus on the entrepreneurial initiatives to reinvent in the dynamic market. In case of startups, entrepreneurs also need to display relevant and effective leadership practices in the shape of entrepreneurial leadership (Cogliser & Brigham, 2004; Renko et al., 2015). In addition, startup owners and entrepreneurs must lead to create new ventures in the absence of standard operating procedures, and organizational structures to rely on (Hmieleski & Ensley, 2007; Renko et al., 2015).

In the organizational context, entrepreneurial leadership has emerged as leadership who demonstrates the opportunity-focused behaviours. It is concluded that entrepreneurial leadership possesses long term vision, self-confidence, high-tolerance for ambiguity, and internal locus of control, are creative, flexible, persistence, risk-taker, tenacious and proactive, have opportunity-focused-, planning-, achievements-, and power-orientation, and influence and motivate others as well (Becherer et al., 2008; Igbal et al., 2020; Renko, 2017). All these attributes converge into two core characteristics i.e., opportunity recognition and exploitation and make entrepreneurial leadership different from other leadership styles (Iqbal et al., 2020; Shane & Venkataraman, 2000). Entrepreneurial opportunity refers to the likelihood of offering innovative solutions (products or services) to the market (Gaglio, 2004). Opportunity recognition focuses on the perception of such possibility. Opportunity exploitation deals with investment and activities required to gain returns from such potential opportunities (Renko et al., 2015). In results, opportunity exploitation concerns goals and relevant actions which are driven by entrepreneurial leadership. Such leaders not only involve in opportunity-focused initiatives but also influence and encourage their followers to do the same (Renko, 2017). For certain motives, leaders are mandated to take the opportunity-focused actions. First, leaders are responsible to recognize and exploit the potential opportunities in market. Viewing leaders entrepreneurial mindset and attitudes, employees will offer enhanced commitment to do the same (Iqbal & Ahmad, 2016; Renko et al., 2015). By acting as role models, leaders also instigate and direct their employees. Accordingly, entrepreneurial leaders recognize potential opportunities and acquire necessary resources to exploit them. Entrepreneurial leaders also act as role models and encourage their employees to follow entrepreneurial goals (Iqbal et al., 2024; Renko, 2017). Such leaders also challenge and instigate their employees to think out of the box (Thornberry, 2006). Entrepreneurial leaders offer a long term vision of their business and ensure their employees personal involvement and pride. They also enable their followers to understand their identities as an entrepreneur agents who drive firms creativity and innovation (Renko, 2017). Hence, authors posit following hypothesis.

H1: Entrepreneurial leadership significantly positively influence SMEs export performance.

Entrepreneurial leadership and SMEs internationalization

On average, SMEs in emerging economies face immature infrastructure, shortage of expertise, weak institutional environment and lack of managerial competencies, which make their journey towards internationalization harder (Ahmad et al., 2020; Aray et al., 2021; Iqbal & Piwowar-



Sulej, 2023). So, market context appears highly substantial in emerging economies SMEs internationalization phenomenon (Georgiadis & Vlachos, 2004). The external market factors affect local SMEs drivers such as risk-taking orientation, innovativeness, collaboration and internationalization exposure of their entrepreneurial initiatives which positively affect their export performance (Aray et al., 2021). Therefore, it is evident for SMEs to experience contextual specificity of its markets as challenges in order to launch internationalization oriented activities (Georgiadis & Vlachos, 2004).

According to Meyer & Peng, (2016), the boundary conditions play critical role in the subject relevancy establishment. In the presence of highly technological disruptions and creativity environment, a firm dynamic capability enables them to develop conducive environment for innovation and gain competitive edge in the market (Cortellazzo et al., 2019; Iqbal et al., 2024). Similarly, the relationship between entrepreneurial leadership and SMEs internationalization may also varies in the presence of conditional factors based on contingency theory (Pang et al., 2019). Recently, the frequency and variations in technology related products is high that it is becoming hard to do cost-benefit analysis and select the most appropriate one with long term planning. Similarly, market environment is also highly unpredictable and dynamic, it is becoming challenging for firms to offer customised products and services with varying levels of foreign markets. All of this make it hard for SMEs top management to make any decision related to entrepreneurial venture or new investment in any foreign market. Thus, sketching on contingency theory, the conditional role of technological and environmental uncertainty is proposed.

H2: With increasing level of technological uncertainty, the relationship between entrepreneurial leadership and export performance buffers.

H3: With increasing level of environmental uncertainty, the relationship between entrepreneurial leadership and export performance buffers.

In relation with above sections related to hypotheses development, authors presents their research framework in below figure. 1.

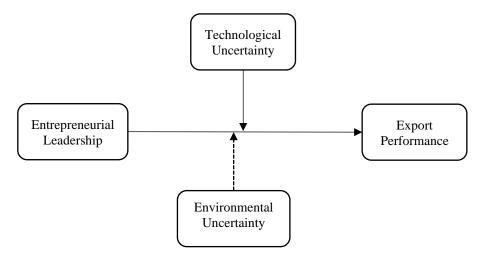


Figure. 1: Research Framework

Methods

Context, population and sample



At the international level, SMEs contribute approximately 40% of total gross domestic product (GDP) of emerging economies (The World Bank, 2022). Yet, SMEs do not share same playing field with MNEs. Recently, the removal of imposed barriers and introduction of disruptive communication technologies paved way for SMEs to enter into foreign markets (Qin et al., 2022). Currently, the drivers of internationalisation in the context of SEMS is receiving attention from both practitioners and academicians (Zahoor et al., 2020). From the internationalisation perspective, the entrepreneurship literature has long emphasized on the crucial role of entrepreneurs and managers characteristics/attributes to increase export performance (Qin et al., 2022). No one can deny the significance of SMEs in the emerging economy context. Mostly European Union states have focused on the SMEs internationalization (Ribau et al., 2018). Academician and practitioners in US are conscious about the operations of MNEs. To establish a holistic framework about SMEs internationalization, there is need to conduct studies in the Asian and especially emerging economies context as well (Ribau et al., 2018).

Chinese SMEs make more than 99% of all businesses and is viewed as the foreign trade entity (Igbal & Piwowar-Sulej, 2022). In China, SMEs account for 60% of total gross domestic product (GDP) and offers employment to 80% of workforce (Su et al., 2020). Chinese SMEs have entered into international market with low-end mass production with modest entry positions. Yet, they are now required to upgrade their skills and enrich their dynamic capabilities to sustain their position in international market (Liu et al., 2009). In addition, Chinese SMEs are coping with rising wages, labour shortage, ageing population, increasing material costs - raw materials, and development of second- and third-tertiary cities. Currently, the high inflation and economic stagnation deteriorated the overseas consumption which strongly affected export-oriented firms and resulted into higher production costs (Igbal et al., 2024; Su et al., 2020). Furthermore, manufacturing firms are shifting their operations from high cost to low cost countries. In result, the market is heavily reliant on the low cost materials and components which bring high value addition in comparison with alternative products, which strongly attributed with Chinese SMEs (Gereffi, 2019). Considering all this, Chinese SMEs find it quite challenging to cope with international competitive forces and enter into international market and enhance their export performance (Lee, 2008). Thus, SMEs in China possess dire need to transform their operations in order to sustain edge over their competitors in market and improve their internationalization. SMEs in the Chinese industry sector are defined as small (20-300 employees), medium (300-1000 employees) (Su et al., 2020; Xuecheng & Iqbal, 2022a). In addition, Chinese manufacturing firms in global market participate by offering original equipment manufacturing or design manufacturing products to their customers. Contrary to this, own brand manufacturing firms are in full control of their products from designing till delivery to the end consumers (Gereffi, 2019).

Only those Chinese SMEs were requested to participate in current study, who are listed with the SME and Growth Enterprise Market Board. The Chinese government has launched the SME Board associated with Shenzhen Stock Exchange in 2004, which was established to facilitates SMEs with financial resources and promote technology firms to be registered with regulatory authority in future (Qin et al., 2022). In 2009, GEM Board has established in order to facilitate small firms meeting the full listing requirements with SZ Main Board. In this research, the list of such SMEs was extracted from the Chinese Listed Firms Outward Foreign Direct Investment Research Database of C SMAR, which is responsible to maintain the list of businesses registered with Shanghai and Shenzhen Stock Exchanges (Qin et al., 2022). Therefore, population of this study is MSEs who are registered with in China. Using our personal and professional networking, we shared our



physical survey form with 500 SME representatives. In return, we received 233 reliable valid responses for further analysis. Therefore, response rate in this study is 46.60%.

Measures

In this study, we adopted measurement items of all four constructs from past studies. Initially, survey for was designed into English language. Later on, we translated this survey form into Chinese language. The Chinese version of survey form was also validated by academic experts and practitioners prior to its dissemination. As higher Likert scale results into lower burden. and requires higher cognitive quality adopted point Likert scale in this study ranging from strongly disagree (1) to strongly agree (5). In this study, SMEs representatives were asked to rate their export performance using six-items adopted from the Do & Luu, (2020)'s study. Chung & Kuo, (2018) has also used these items in the New Zealand context and reported this scale as highly valid and reliable. Entrepreneurial leadership practices were assessed based on eight items adopted from the study of Renko et al., (2015). We also adopted measurement items of technological and environmental uncertainty from past studies as well. We requested SMEs representatives to assess the technological uncertainty using four-items (Atuahene-Gima, 2004). Technological uncertainty focuses on magnitude and frequency of change in technology and in products afforded by variations in industry technology. Similarly, they also rated environmental uncertainty in their industry based on dix-items adopted from Miller & Dröge, (1986)'s study. Aray et al., (2021) has employed this scale in Russian context and concluded with tis high reliability (0.796). Environmental uncertainty deals with variation intensity and frequency in demand, supply and production-predictability.

Findings

Descriptive analysis

As data was collected using five-point Likert scale, we employed Sekaran & Bougie, (2016)'s criterion to interpret the mean values. The mean values analysis unravelled that SMEs in China are experiencing high export performance (M=4.018) and entrepreneurial leadership practices (M=4.234) as well (Table. 1). Yet, it is surprising to know about their perception about high environmental uncertainty as well (M=4.113). Nevertheless, SMEs representatives have reported about moderate level of technological uncertainty (M=3.679) in their industry (Table. 1).

Table. 1: Descriptive analysis

| Construct | Mean | S.D. | Skewness | Kurtosis |
|----------------------------|-------|-------|----------|----------|
| Entrepreneurial leadership | 4.234 | 0.560 | -0.252 | -0.746 |
| Export performance | 4.018 | 0.695 | -0.310 | -0.380 |
| Technological uncertainty | 3.679 | 0.735 | 0.216 | -0.698 |
| Environmental uncertainty | 4.113 | 0.697 | -0.399 | -0.490 |



Data screening

Prior to hypotheses testing, it is mandated to run data screening process which deals with missing values, outliers and normal distribution. After data collection, we inserted all responses into MS excel sheet and verified it to note down any missing values. After thorough review, we could not see any missing values in dataset. In order to examine any outliers, we conducted Z-score analysis. Z-score values of all cases were found lower than cut-off value 3.29 (Baruch & Holtom, 2008). Therefore, dataset is free of any potential outliers in current study. Nevertheless, the application of partial least square-structural equation modeling (PLS-SEM) analysis does not require normal distribution, we decided about data normality based on skewness and kurtosis values. In the present study, skewness values of entrepreneurial leadership (-0.252), export performance (-0.310), technological uncertainty (0.216) and environmental uncertainty (-0.399) fall in the range of ± 3 (DeCarlo, 1997). In addition, their kurtosis values also lie 3 range (Table. 1). Hence, it is evident that our dataset has data normality.

Measurement model analysis

The proposed framework in this work is complex and predictor in nature. Therefore, we adopted partial least square- structural equation modelling (PLS-SEM) analysis to confirm the proposed hypotheses. Yet, the running of PLs-SEM analysis requires measurement model analysis prior to conducting structural path model analysis. The measurement model analysis concerns about item reliability, construct reliability, convergent and discriminant validity as well. The continuous constructs in this study are all reflective in its nature. The factor loading of all items were found ranging from 0.619 To 0.923 and are higher than 0.60 (Table. 2). Therefore, all measurement items possess acceptable reliability. The composite reliability (CR) of entrepreneurial leadership (0.933), export performance (0.932), technological uncertainty (0.835) and environmental uncertainty (0.929) are greater than cut-off value i.e. 0.70 (Table. 2). It is evident that all these four continuous variables have sufficient reliability.

The construct validity is classified into convergent and discriminant validity as well. The convergent validity is acceptable in case factor loading is higher than 0.60 and average variance extracted (AVE) value are greater than 0.50. In this study, Ave values of entrepreneurial leadership (0.634), export performance (0.698), technological uncertainty (0.585), and environmental uncertainty (0.690) are above its cut-off value (Table. 2). Thus, all of them possess acceptable convergent validity.

Table. 2: Loading, Reliability, CR and AVE values

| Construct | Items | Loading | alpha | CR | AVE |
|----------------------------|-------|---------|-------|-------|-------|
| Entrepreneurial leadership | EnL01 | 0.743 | | | |
| | EnL02 | 0.734 | | | |
| | EnL03 | 0.841 | | | |
| | EnL04 | 0.789 | 0.917 | 0.933 | 0.634 |
| | EnL05 | 0.815 | 0.917 | 0.933 | 0.054 |
| | EnL06 | 0.848 | | | |
| | EnL07 | 0.818 | | | |
| | EnL08 | 0.778 | | | |
| Export performance | ExP01 | 0.706 | | | |
| | ExP02 | 0.792 | 0.912 | 0.932 | 0.698 |
| | ExP03 | 0.861 | | | |



| | ExP04 | 0.901 | | | |
|---------------|-------|-------|-------|-------|-------|
| | ExP05 | 0.853 | | | |
| | ExP06 | 0.884 | | | |
| | EU1 | 0.894 | | | |
| | EU2 | 0.894 | | | |
| Environmental | EU3 | 0.915 | 0.906 | 0.929 | 0.690 |
| Uncertainty | EU4 | 0.878 | 0.906 | 0.929 | 0.090 |
| | EU5 | 0.720 | | | |
| | EU6 | 0.645 | | | |
| | TU1 | 0.619 | | | |
| Technological | TU2 | 0.767 | 0.732 | 0.835 | 0.585 |
| Uncertainty | TU3 | 0.892 | 0.732 | 0.833 | 0.363 |
| | TU4 | 0.923 | | | |

In current study, we evaluated the discriminant validity of the constructs based on Fornell-Larcker Criterion. According to this criterion, a construct has sufficient discriminant validity provided square root of tis AVE value is higher than its correlations with other constructs in the proposed framework. As evident, all four constructs namely entrepreneurial leadership, export performance technological and environmental uncertainty have square root of their AVE values greater than their respective inter-construct correlation values (Table. 3). Hence, all of them have acceptable discriminant validity.

Table. 3: Fornell-Larcker Criterion

| Construct | 1 | 2 | 3 | 4 |
|----------------------------|-------|-------|-------|-------|
| Entrepreneurial leadership | 0.796 | | | |
| Export performance | 0.840 | 0.835 | | |
| Environmental Uncertainty | 0.799 | 0.795 | 0.831 | |
| Technological Uncertainty | 0.733 | 0.829 | 0.817 | 0.765 |

Path analysis

The path analysis disclosed that entrepreneurial leaders significantly positively affect SMEs export performance (β =0.529, ρ <0.05) in China (Table. 4). Therefore, hypothesis H1 is accepted here. In this work, we also investigated the moderating role of technological and environmental uncertainty as well. In order to assess their conditional impact, we estimated the interaction effect of interaction term (entrepreneurial leadership *technological uncertainty) on the SMEs export performance. The path analysis concluded with significant negative effect of interaction term (entrepreneurial leadership *technological uncertainty) on SMEs export performance (β =-0.207, ρ <0.05) (Table. 4). Similarly, another interaction term (entrepreneurial leadership *environmental uncertainty) also significantly negatively influence SMEs export performance (β =-0.201, ρ <0.05) (Table. 4). Therefore, both hypotheses H2 and H3 are supported here.

Table. 4: Hypotheses Testing

|--|



| Entrepreneurial leadership -> Export performance | 0.529 | 0.098 | 5.378 | 0.000 | 0.322 | 0.671 |
|--|--------|-------|---------|-------|--------|-------|
| Entrepreneurial | | | | | | |
| leadership*Technological | 0.207 | 0.055 | 2 (24 | 0.000 | 0.224 | _ |
| Uncertainty -> Export | -0.207 | 0.057 | 3.624 | 0.000 | -0.334 | 0.109 |
| performance | | | | | | |
| Entrepreneurial | | | | | | |
| leadership*Environmental | 0.201 | 0.062 | 2 2 4 7 | 0.001 | 0.220 | - |
| Uncertainty -> Export | -0.201 | 0.062 | 3.247 | 0.001 | -0.329 | 0.098 |
| performance | | | | | | |

Discussion and Conclusion

Using data from 233 SMEs, this study concludes with acceptance of all three hypotheses. First, this work offers empirical evidence in support of hypothesis H1. According to hypothesis H1, entrepreneurial leaders significantly positively influence SMEs export performance. Current findings are consistent with those offered by Luu, (2023), Chung & Ho, (2021), Rua et al., (2018), Hughes et al., (2010) and Lee, (2008). In rules of the strategic capacity-building perspective, leaders may play critical roles in the development of SMEs internationalization (Igbal et al., 2024; Selvarajah et al., 2023). Luu, (2023) found that digital transformational leadership practices indirectly promote SMEs export performance through organizational digital capabilities and employees' innovative behaviors in Vietnam. According to Dung & Giang, (2022), transformational leadership indirectly affects international intrapreneurial behaviours through internal corporate social responsibility practices in Vietnam. In the context of New Zealand SMEs, cost leaders positively influence strategic and market performance (Chung & Ho, 2021). Rua et al., (2018) also offered empirical evidence in support of positive impact of cost and differentiation leadership practices on the SMEs export performance in Portugal. Differentiation and cost leadership practices also spurs export venture performance in Mexican high-tech industry (Hughes et al., 2010). Moreover, instrumental and participative leadership style were found positively impacting SMEs export performance in Taiwan (Lee, 2008).

The current work also proposed the contingent role of technological and environmental uncertainty as well. The present empirical findings demonstrated that the relationship between entrepreneurial leadership practices and SMEs export performance weakens with increasing level of both technological and environmental uncertainty. Hence, both hypotheses H2 and H3 were accepted here. The findings of hypothesis H2 are consistent with those claimed by Chaudhuri et al., (2023), Iqbal et al., (2021), and Yu et al., (2020). In the Indian hospitality industry, Chaudhuri et al., (2023) concluded with moderating impact of technological turbulence on the blockchain technology adoption-sustainable performance relationship. In addition, technological turbulence also moderates the impact of entrepreneurial leadership on strategic flexibility in Chinese high-tech industry (Yu et al., 2020). Similarly, the impact of sustainable leaders impedes on firms frugal innovation performance in Chinese and Indian SMES as well with increasing level of technological turbulence (Iqbal et al., 2021). Moreover, Porcu et al., (2017) claimed that technological turbulence may potentially affect the impact of integrated marketing communication on sales performance.

The present empirical findings related to moderating role of environmental turbulence are also consistent with those offered by Budisusetio et al., (2019) and Dayan et al., (2009). Resick et al., (2014) claimed environmental turbulence as potential boundary condition on the relationship of information elaboration benefits with team performance. Among Indonesian SMEs, environmental turbulence negatively affect the business performance (Budisusetio et



al., 2019). In new product development projects in Turkey, the impact of managerial trust on product success varies at different levels of environmental turbulence (Dayan et al., 2009). Contrary to present empirical findings, Yu et al., (2020) concluded with non-significant impact of environmental turbulence on the entrepreneurial leadership-strategic flexibility relationship.

Limitations and Research Directions

The present research is not free of limitations which emerge as opportunities for future studies. First, authors collected data SMEs representatives by adopting cross-sectional method which may cause bias in findings. Future studies are recommended to employ multi-source data with time-lagged approach. Second, China is a large market, we only collected data from big cities such as Beijing, Shanghai, Chengdu, Shenzhen and Hangzhou. So, current findings cannot be generalized to even one country i.e., China. Future studies are advised to come from different regions and countries to develop a holistic framework about SMEs internationalization. Third, this study only examined the direct relationship between entrepreneurial leadership and SMEs export performance. There is need to explore the potential mechanism on their direct relationship. Last but not least, leadership style affects firms' performance. There is need to do comparative study in order to explore the most effective leadership phenomenon in the SMEs internationalization context.

References

- Adebayo, S. O., & Ogunsina, S. O. (2011). Influence of supervisory behaviour and job stress on job satisfaction and turnover intention of police personnel in Ekiti State. *Journal of Management and Strategy*, 2(3), 13.
- Ahmad, N. H., Iqbal, Q., & Halim, H. A. (2020). *Challenges and Opportunities for SMEs in Industry 4.0*. IGI Global. https://doi.org/10.4018/978-1-7998-2577-7
- Albaz, A., Dondi, M., Rida, T., & Schubert, J. (2020). Unlocking growth in small and medium-size enterprises. *McKinsey & Company*.
- Aparicio, S., Audretsch, D., & Urbano, D. (2021). Why is export-oriented entrepreneurship more prevalent in some countries than others? Contextual antecedents and economic consequences. *Journal of World Business*, 56(3), 101177.
- Aray, Y., Veselova, A., Knatko, D., & Levchenko, A. (2021). Drivers for adoption of sustainability initiatives in supply chains of large Russian firms under environmental uncertainty. *Corporate Governance: The International Journal of Business in Society*, 21(2), 322–338.
- Atuahene-Gima, K. (2004). Strategic decision comprehensiveness and new product development outcomes in new technology ventures. *Academy of Management Journal*, 47(4), 583–597. https://doi.org/10.2307/20159603
- Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human Relations*, 61(8), 1139–1160.
- Becherer, R. C., Mendenhall, M. E., & Eickhoff, K. F. (2008). Separated at birth: An inquiry on the conceptual independence of the entrepreneurship and the leadership constructs. *New England Journal of Entrepreneurship*, 11(2), 13–27.
- Bradley, F., Meyer, R., & Gao, Y. (2006). Use of supplier-customer relationships by SMEs to enter foreign markets. *Industrial Marketing Management*, *35*(6), 652–665.
- Buckley, P. J., Clegg, J., & Tan, H. (2006). Cultural Awareness in Knowledge Transfer to China The Role of Guanxi and Mianzi. *Journal of World Business*, 41, 275–288. https://doi.org/10.1016/j.jwb.2006.01.008
- Budisusetio, D. H., Sule, E. T., & Febrian, E. (2019). Human capital strategy model for improving business unit performance, based on environmental turbulence, strategic



- leadership and organizational culture (A survey on unit business indonesian telecommunication operator). *Journal of Entrepreneurship Education*, 22(4), 1–11.
- Chaudhuri, R., Chatterjee, S., & Vrontis, D. (2023). Adoption of blockchain technology in hospitality and tourism industry and sustainability performance: impact of technological turbulence and senior leadership support. *EuroMed Journal of Business*.
- Chung, H. F. L., & Ho, M. H.-W. (2021). International competitive strategies, organizational learning and export performance: a match and mis-match conceptualization. *European Journal of Marketing*, 55(10), 2794–2822.
- Chung, H. F. L., & Kuo, T. (2018). When and how managerial ties matter in international competitive strategy, export financial and strategic performance framework: a standardized or customized approach? *European Journal of Marketing*.
- Cogliser, C. C., & Brigham, K. H. (2004). The intersection of leadership and entrepreneurship: Mutual lessons to be learned. *The Leadership Quarterly*, 15(6), 771–799.
- Cortellazzo, L., Bruni, E., & Zampieri, R. (2019). The role of leadership in a digitalized world: A review. *Frontiers in Psychology*, *10*, 1938.
- Crespo, N. F., Simões, V. C., & Fontes, M. (2020). Competitive strategies and international new ventures' performance: Exploring the moderating effects of internationalization duration and preparation. *BRQ Business Research Quarterly*, 23(2), 120–140.
- Dayan, M., Di Benedetto, C. A., & Colak, M. (2009). Managerial trust in new product development projects: Its antecedents and consequences. *R&d Management*, *39*(1), 21–37.
- DeCarlo, L. T. (1997). On the meaning and use of kurtosis. Psychological Methods, 2(3), 292.
- Dimitratos, P., Lioukas, S., & Carter, S. (2004). The relationship between entrepreneurship and international performance: the importance of domestic environment. *International Business Review*, *13*(1), 19–41.
- Do, T. T. P., & Luu, D. T. (2020). Origins and consequences of intrapreneurship with behaviour-based approach among employees in the hospitality industry. *International Journal of Contemporary Hospitality Management*, 32(12), 3949–3969.
- Dung, L. T., & Giang, H. T. T. (2022). The effect of international intrapreneurship on firm export performance with driving force of organizational factors. *Journal of Business & Industrial Marketing*, 37(11), 2185–2204.
- Faroque, A. R., Morrish, S. C., & Ferdous, A. S. (2017). Networking, business process innovativeness and export performance: the case of South Asian low-tech industry. *Journal of Business & Industrial Marketing*, 32(6), 864–875.
- Gaglio, C. M. (2004). The role of mental simulations and counterfactual thinking in the opportunity identification process. *Entrepreneurship Theory and Practice*, 28(6), 533–552.
- Galkina, T., & Chetty, S. (2015). Effectuation and networking of internationalizing SMEs. *Management International Review*, *55*, 647–676.
- Georgiadis, P., & Vlachos, D. (2004). The effect of environmental parameters on product recovery. *European Journal of Operational Research*, 157(2), 449–464.
- Gereffi, G. (2019). Global value chains and international development policy: Bringing firms, networks and policy-engaged scholarship back in. *Journal of International Business Policy*, 2, 195–210.
- He Chao Liu Heng, Z. J. (2019). Resource bricolage and innovation of SMEs: The mediating effect of intellectual capital. In *Science Research Management* (Vol. 40, Issue 7, pp. 140–151).
- Hennart, J.-F. (2009). Down with MNE-centric theories! Market entry and expansion as the bundling of MNE and local assets. *Journal of International Business Studies*, 40, 1432–1454.



- Hmieleski, K. M., & Ensley, M. D. (2007). A contextual examination of new venture performance: Entrepreneur leadership behavior, top management team heterogeneity, and environmental dynamism. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 28(7), 865–889
- Hughes, M., Martin, S. L., Morgan, R. E., & Robson, M. J. (2010). Realizing product-market advantage in high-technology international new ventures: The mediating role of ambidextrous innovation. *Journal of International Marketing*, 1–21.
- Idris, B., & Saridakis, G. (2018). Local formal interpersonal networks and SMEs internationalisation: Empirical evidence from the UK. *International Business Review*, 27(3), 610–624.
- Iqbal, Q., & Ahmad, B. (2016). Organizational justice, trust, and organizational commitment in banking sector. *Journal of Applied Economics and Business*, 11(7), 26–43.
- Iqbal, Q., Ahmad, N. H., & Li, Z. (2021). Frugal based innovation model for sustainable development: Technological and market turbulence. *Leadership & Organization Development Journal*, 42(3), 396–407.
- Iqbal, Q., Ahmad, N. H., Tjahjono, H. K., Nasim, A., Muqaddis, M. M., & Palupi, M. (2020). Enhancing Business Performance of Pakistani Manufacturing Firms via Strategic Agility in the Industry 4. 0 Era: The Role of Entrepreneurial Bricolage as Moderator. In *Innovative Management and Business Practices in Asia* (pp. 77–97). IGI Global. https://doi.org/10.4018/978-1-7998-1566-2.ch004
- Iqbal, Q., & Piwowar-Sulej, K. (2022). Sustainable Leadership, Environmental Turbulence, Resilience, and Employees' Wellbeing in SMEs. *Frontiers in Psychology*, 13. https://doi.org/10.3389/fpsyg.2022.939389
- Iqbal, Q., & Piwowar-Sulej, K. (2023). Frugal innovation embedded in business and political ties: transformational versus sustainable leadership. *Asian Business & Management*, 22, 1–24.
- Iqbal, Q., Piwowar-Sulej, K., & Al-Bashrawi, M. A. (2024). Servant leadership and cross-border knowledge sharing: A moderated moderation of hierarchical similarity and individual cultural orientation. *European Journal of International Management*.
- Ireland, R. D., Hitt, M. A., Camp, S. M., & Sexton, D. L. (2001). Integrating entrepreneurship and strategic management actions to create firm wealth. *Academy of Management Perspectives*, 15(1), 49–63.
- Isichei, E. E., Aminu, A. A., Chukwu, B. I., Ike, N. M., Agbaeze, K. E., & Anthony, I. (2022). Linking ambidextrous leadership and small and medium scale enterprises export performance. *South African Journal of Business Management*, 53(1), 14.
- Johnson, V. E., & Brennan, L. L. (2002). Examining the impact of technology on social responsibility practices. In M. Schwartz & H. Harris (Eds.), *Research in Ethical Issues in Organizations* (pp. 107–123). Emerald Group Publishing. https://doi.org/10.1016/S1529-2096(02)04007-5
- Ju, M., Jin, J. L., & Zhou, K. Z. (2018). How can international ventures utilize marketing capability in emerging markets? Its contingent effect on new product development. *Journal of International Marketing*, 26(4), 1–17.
- Junaidu, A. S. (2012). Export performance of SMEs in the Nigerian leather industry and the mediating effect of perception of export difficulty. *International Journal of Academic Research in Business and Social Sciences*, 2(10), 1–12.
- Khan, Z., Shenkar, O., & Lew, Y. K. (2015). Knowledge Transfer from International Joint Ventures to Local Suppliers in a Developing Economy. *Journal of International Business Studies*, 46(6), 656–675. https://doi.org/10.1057/jibs.2015.7



- Lee, L. T.-S. (2008). The influences of leadership style and market orientation on export performance: an empirical study of small and medium enterprises in Taiwan. *International Journal of Technology Management*, 43(4), 404–424.
- Liu, J., Baskaran, A., & Li, S. (2009). Building technological-innovation-based strategic capabilities at firm level in China: a dynamic resource-based-view case study. *Industry and Innovation*, 16(4–5), 411–434.
- Lu, J. W., & Beamish, P. W. (2001). The internationalization and performance of SMEs. *Strategic Management Journal*, 22(6-7), 565–586.
- Luu, T. D. (2023). Digital transformation and export performance: a process mechanism of firm digital capabilities. *Business Process Management Journal*.
- Martin, S. L., & Javalgi, R. R. G. (2016). Entrepreneurial orientation, marketing capabilities and performance: the moderating role of competitive intensity on Latin American International new ventures. *Journal of Business Research*, 69(6), 2040–2051.
- Meyer, K. E., & Peng, M. W. (2016). Theoretical foundations of emerging economy business research. *Journal of International Business Studies*, 47, 3–22.
- Miller, D., & Dröge, C. (1986). Psychological and traditional determinants of structure. *Administrative Science Quarterly*, 539–560.
- Mostafiz, M. I., Sambasivan, M., & Goh, S. K. (2021). Antecedents and consequences of market orientation in international B2B market: role of export assistance as a moderator. *Journal of Business & Industrial Marketing*, 36(6), 1058–1075.
- Ngibe, M., & Lekhanya, L. M. (2019). Critical factors influencing innovative leadership in attaining business innovation: a case of manufacturing SMEs in KwaZulu-Natal. *International Journal of Entrepreneurship*, 23(2), 1–20.
- Nguyen, N. P., & Adomako, S. (2021). Environmental proactivity, competitive strategy, and market performance: The mediating role of environmental reputation. *Business Strategy and the Environment*, 30(4), 2008–2020.
- Oluwafemi, T. B., Mitchelmore, S., & Nikolopoulos, K. (2020). Leading innovation: Empirical evidence for ambidextrous leadership from UK high-tech SMEs. *Journal of Business Research*, 119, 195–208.
- Özgül, B., & Zehir, C. (2023). How Managers' Green Transformational Leadership Affects a Firm's Environmental Strategy, Green Innovation, and Performance: The Moderating Impact of Differentiation Strategy. *Sustainability*, 15(4), 3597.
- Pang, C., Wang, Q., Li, Y., & Duan, G. (2019). Integrative capability, business model innovation and performance: Contingent effect of business strategy. *European Journal of Innovation Management*, 22(3), 541–561.
- Pergelova, A., Manolova, T., Simeonova-Ganeva, R., & Yordanova, D. (2019). Democratizing entrepreneurship? Digital technologies and the internationalization of female-led SMEs. *Journal of Small Business Management*, 57(1), 14–39.
- Piwowar-Sulej, K., & Iqbal, Q. (2023). Leadership styles and sustainable performance: A systematic literature review. *Journal of Cleaner Production*, 134600.
- Porcu, L., del Barrio-García, S., & Alcántara-Pilar, J. M. (2017). Modeling the Antecedents and Effects of Integrated Marketing Communication (IMC) in the Hospitality Industry. *Marketing at the Confluence between Entertainment and Analytics: Proceedings of the 2016 Academy of Marketing Science (AMS) World Marketing Congress*, 385–389.
- Qin, L., Akhtar, N., Farooq, Q., & Gillani, S. H. M. (2022). How a chairperson's international experience can affect the post-entry speed of international SMEs from emerging economies: the roles of functional variety and power. *International Journal of Emerging Markets*.
- Renko, M. (2017). Entrepreneurial leadership. Forthcoming in" Nature of Leadership", 3rd



- Edition. Edited by David V. Day and John Antonakis. SAGE Publications.
- Renko, M., El Tarabishy, A., Carsrud, A. L., & Brännback, M. (2015). Understanding and measuring entrepreneurial leadership style. *Journal of Small Business Management*, 53(1), 54–74.
- Resick, C. J., Murase, T., Randall, K. R., & DeChurch, L. A. (2014). Information elaboration and team performance: Examining the psychological origins and environmental contingencies. *Organizational Behavior and Human Decision Processes*, 124(2), 165–176.
- Ribau, C. P., Moreira, A. C., & Raposo, M. (2018). SME internationalization research: Mapping the state of the art. *Canadian Journal of Administrative Sciences/Revue Canadienne Des Sciences de l'Administration*, 35(2), 280–303.
- Rocha, R. G., & Pinheiro, P. G. (2021). Organizational Spirituality: Concept and Perspectives. *Journal of Business Ethics*, 171(2), 241–252. https://doi.org/10.1007/s10551-020-04463-y
- Rogers, D. S., Duraiappah, A. K., Antons, D. C., Munoz, P., Bai, X., Fragkias, M., & Gutscher, H. (2012). A vision for human well-being: transition to social sustainability. *Current Opinion in Environmental Sustainability*, *4*(1), 61–73. https://doi.org/10.1016/j.cosust.2012.01.013
- Rua, O., França, A., & Fernández Ortiz, R. (2018). Key drivers of SMEs export performance: the mediating effect of competitive advantage. *Journal of Knowledge Management*, 22(2), 257–279.
- Ruekert, R. W., Walker Jr, O. C., & Roering, K. J. (1985). The organization of marketing activities: a contingency theory of structure and performance. *Journal of Marketing*, 49(1), 13–25.
- Rundh, B. (2015). International market development: the small and medium sized firm's opportunity or dilemma. *Management Decision*, 53(6), 1329–1354.
- Sapienza, H. J., Autio, E., George, G., & Zahra, S. A. (2006). A capabilities perspective on the effects of early internationalization on firm survival and growth. *Academy of Management Review*, *31*(4), 914–933.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Selvarajah, C., Sukunesan, S., & Meyer, D. (2023). Three-tier SME internationalization process model: a Vietnam study on the relationship between managerial capacity, innovation strategies and technological and innovation leadership. *Asia Pacific Business Review*, 1–32.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217–226.
- Singh, S. K., Giudice, M. Del, Chierici, R., & Graziano, D. (2020). Green innovation and environmental performance: The role of green transformational leadership and green human resource management. *Technological Forecasting and Social Change*, *150*(May 2019), 119762. https://doi.org/10.1016/j.techfore.2019.119762
- Su, F., Khan, Z., Kyu Lew, Y., Il Park, B., & Shafi Choksy, U. (2020). Internationalization of Chinese SMEs: The role of networks and global value chains. *BRQ Business Research Quarterly*, 23(2), 141–158.
- The World Bank. (2022). Small and Medium Enterprises (SMEs) Finance.
- Thornberry, N. (2006). Lead like an entrepreneur. McGraw Hill Professional.
- Turnbull, P. W. (1987). A challenge to the stages theory of the internationalization process. *Managing Export Entry and Expansion*, 21–40.
- Xuecheng, W., & Iqbal, Q. (2022a). Ethical Leadership, Bricolage, and Eco-Innovation in the



- Chinese Manufacturing Industry: A Multi-Theory Perspective. *Sustainability*, 14(12), 7070.
- Xuecheng, W., & Iqbal, Q. (2022b). Managerial networking and frugal innovation: Situational leadership perspective. *Frontiers in Psychology*, 3495. https://doi.org/10.3389/fpsyg.2022.948530
- Yu, Y., Zhang, X., Huang, S., Chen, Z., & Chen, Z. (2020). Entrepreneurial leadership and innovation performance in new ventures: Examining the roles of strategic flexibility and environmental turbulence. *Entrepreneurship Research Journal*, 12(4), 629–652.
- Zahoor, N., Al-Tabbaa, O., Khan, Z., & Wood, G. (2020). Collaboration and internationalization of SMEs: Insights and recommendations from a systematic review. *International Journal of Management Reviews*, 22(4), 427–456.