

Developmental Paper

Title

Relationships between entrepreneurial orientation and firm performance: A mixed-method study on Chinese small and medium-sized enterprises from a gender perspective

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Abstract

The paper extends the study of entrepreneurial orientation (EO) and firm performance by introducing gender as a moderating variable and investigating how its effect is contextualised in China using sequential mixed-methods. Drawing on extant literature, this paper hypothesises that there is a positive association between EO dimensions and firm performance and gender moderates the relationship between EO dimensions and firm performance. After studying 398 SMEs in China, the paper finds that innovativeness, risk-taking and proactiveness are positively associated with firm performance. In other words, firms with a “strong” EO tend to perform significantly better. In addition, gender’s moderating role is partially supported, with stronger associations in males. While gender moderates the relationship between risk-taking and firm performance and that between proactiveness and firm performance, its effect on the relationship between innovativeness and firm performance is not statistically significant.

Track: Entrepreneurship

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1. Introduction

The origins of entrepreneurial orientation (EO) can be traced back to Miller's seminal study (1983), where he demonstrated that entrepreneurship and its driving forces were distinct in various organisational structures, including firm scale, chief executive officer personality and a variety of other structural and process characteristics. EO is normally viewed as a firm's decision-making practices, managerial philosophies and strategic behaviours (Anderson et al., 2009). But how it should be constructed remains controversial. Miller (1983), in his aforementioned work, suggested that there were three EO dimensions when describing it as an overall strategic stance at the firm level: innovativeness, risk-taking and proactiveness. His idea was further developed by Covin and Slevin (1989), who developed a nine-item scale to measure the three EO dimensions. However, Lumpkin and Dess (1996) argued that another two dimensions, competitive aggressiveness and autonomy, should be added as they believed EO was actions and activities that led to new market entry (p.136). This study adopts the construct developed by Miller (1983) and Covin and Slevin (1989) for two reasons. Firstly, most studies hitherto have taken the three-dimensional construct, making it a widely recognised and validated EO conceptualisation (Wales, Gupta and Mousa, 2013). Secondly, studies adopting the construct by Lumpkin and Dess (1996) have output more divergent and conflicting findings, so their conceptualisation is not a proper choice for the current study.

Past studies on entrepreneurship have found that EO and company performance are highly correlated (see Jansen, Simsek and Cao, 2012; Ren and Guo, 2011; Moreno and Cassillas, 2008; Daily et al., 2002) because EO affects learning, information acquisition and utilisation, firm satisfaction, global success ratings given by proprietors or business administrators, revenue growth, and return on investment (see Rauch et al., 2009; Covin, Green and Slevin, 2006; Keh, Nguyen and Ng, 2007; Miller, 2011). However, prior studies have produced inconsistent results. Despite the fact that many researchers have discovered a positive (sometimes partial) relationship between EO and performance (cf. Zhang, Tansuhaj and McCullough, 2009; Zhou, 2007; Knight, 2000/2001) or a fluctuating relationship, such as an S-shaped or U-shaped relationship (cf. Tang et al., 2008), others assert that there is a negative relationship or no relationship at all (cf. Messersmith and Wales, 2013; Kuivalainen et al. 2007). The differences in the research findings of prior studies are attributable to their divergent research contexts. Also, whereas a considerable proportion of previous research on EO and firm performance was undertaken in developed economies (cf. Casillas & Moreno, 2010; Soininen et al. 2012; Anderson & Eshima, 2013), research in developing economies, especially China, was scarce. Since China has become the world's largest developing economy (Lin, Ansell and Siu, 2020), the discrepancy between EO and firm performance findings warrants further investigation, especially in the Chinese context. Also, the very inconclusive findings of the relationship between EO and firm performance call for an exploration of the moderating effect of gender on the relationship, and the reasons will be detailed below.

The past few decades have seen great development in women's participation in entrepreneurial activities. According to the Centre for Women's Business Research (2004), over 50% of the enterprises in the US are owned by women, and the growing rate of women-

owned firms is twice that of all firms. Despite women's enhanced economic power, the continued existence of gender discrimination has largely curbed their business performance. For example, they are characterised as having fewer employees and lower avenues than their male counterparts (Fischer, Reuber and Dyke, 1993). Their financial performance, indicated by personal salaries, is also proven to be inferior to male entrepreneurs (Brush and Hisrich, 2000). Women's inferiority in business performance, based on Coleman (2002), is due to their limited access to capital. As Brush et al. (2002) pointed out, female entrepreneurs were deficient in their access to venture capital resources than their male counterparts. Although their social capital is found to be higher than males because they are better relationship builders, how their social capital functions to secure their positions and opportunities as well as female entrepreneurial activities in general are understudied (Menzies, Diochon and Gasse, 2004; Runyan, Huddleston and Swinney, 2006), concluded by Brush and Hisrich (2000) as 'inconclusive and scarce'. Gender equality in China has been chiefly shaped by the country's particular socio-cultural and socio-political contexts. Hugely influenced by Confucianism, which promotes patriarchal ideology (Li, 2000), China's economic reform and policies on encouraging women to be involved in business activities have made it a distinctive context for research on entrepreneurial performance from a gender perspective, which, nonetheless, is also understudied, calling for further investigation into how gender moderates the relationship between EO and firm performance in the Chinese context.

Therefore, based on the research gaps indicated above, the research questions are designed and listed as follows:

The major research question is:

What is the impact of gender on small and medium-sized enterprises' entrepreneurial orientation and performance in the Chinese context?

To answer the above question, the following secondary research questions are proposed, with the first two research questions quantitatively researched, the third one qualitatively studied:

RQ1: Is there a positive association between EO dimensions and firm performance in Chinese SMEs?

RQ2: Does gender moderate the relationship between EO and the performance of Chinese SMEs?

RQ3: How is gender's moderating effect contextualised in China?

2. Theories and Hypotheses

Although EO has long been considered a multidimensional construct, as mentioned above, applying the construct integrally may produce an opposing effect by these dimensions. For example, Hughes and Morgan (2007) examined the independent effects of EO components on firm performance and discovered that innovativeness and proactiveness had a positive,

whereas risk-taking had a negative effect. A similar study by Olubiyi, et al. (2019) confirmed that risk-taking and proactiveness had a significant positive effect on profitability, while the result regarding the effect of innovativeness on profitability was not significant. Therefore, aligned with numerous previous research (cf. Boso et al. 2013; Kreiser et al., 2013; Hughes and Morgan, 2007; Olubiyi et al., 2019; Lomberg et al., 2017), the current study insists that EO dimensions should be studied independently since each of these dimensions have separate effects on outcome variables.

Taking the resource-based view (RBV) proposed by Barney (1991), which stresses the importance of firms' resources for their success, this study argues that each EO dimension, including innovativeness, risk-taking and proactiveness, may bring varying benefits to firms in terms of capital, managerial and local knowledge, leading to their positive performance. As Colla et al. (2020) asserted, different entrepreneurial resources provide different values to the system, highlighting the necessity of exploring the relationships between firm performance and each single EO dimension. Therefore, the following research hypotheses are proposed:

H1: There is a positive association between EO dimensions and firm performance in Chinese SMEs.

H1a: Innovativeness has a positive effect on firm performance.

H1b: Risk-taking has a positive effect on firm performance.

H1c: Proactiveness has a positive effect on firm performance.

While gender has been largely overlooked in the studies of EO and firm performance, as indicated above, its effect on firm resources has been validated by many scholars, with males more probably to obtain resources and become successful. For instance, Manolove et al. (2007) revealed that men and women differed in the accumulation of their social capital, which might influence their future development. In the same vein, Shinnar et al. (2012) asserted that compared with males, females tended to obtain less support for entrepreneurial activities (see also Heilman and Chen, 2003; Goktan and Gupta, 2015; Menzies et al., 2006; Marlow and Patton, 2005;). Therefore, it is reasonable to say gender could moderate the relationship between EO dimensions and firm performance by influencing entrepreneurs' resource acquisition and networks from an RBV perspective, with females more likely to have less resources and hence lower firm performance. Therefore, the following research hypotheses are proposed:

H2: Gender moderates the relationship between EO dimensions and the performance of Chinese SMEs.

H2a: Gender moderates the relationship between innovativeness and firm performance, with stronger associations in males than females.

H2b: Gender moderates the relationship between risk-taking and firm performance, with stronger associations in males than females.

H2c: Gender moderates the relationship between proactiveness and firm performance, with stronger associations in males than females.

The conceptual model and hypotheses are illustrated as follows:

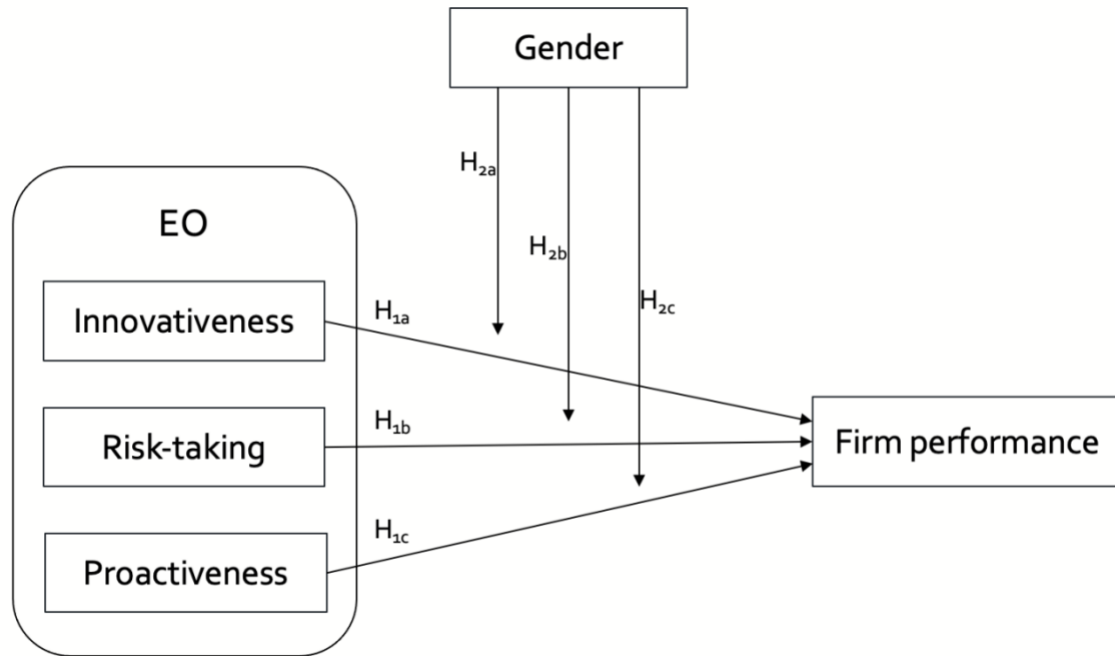


Figure 1. Conceptual framework and hypotheses

3. Methods

A sequential mixed-methods explanatory approach is adopted for this study. A questionnaire survey targeting entrepreneurs of Chinese SMEs was first conducted on Wenjuanxing, a Chinese survey platform, equivalent to Qualtrics, to collect quantitative data for hypotheses tests. Then, using the SPSS software, a hierarchical regression analysis was performed to test the hypotheses indicated above. It should be noted that as of the writing of this paper, the quantitative data collection has been finished.

Sample

A total of 414 responses were collected. And after the sampling criteria were applied, a total of 398 valid responses were kept for further analysis. Among the 398 valid responses, 215 were from male entrepreneurs (representing 54%) and 183 were from female entrepreneurs (representing 46%).

Scales

Independent variable: Entrepreneurial orientation, measured by scales developed by Covin and Slevin (1989), with nine items representing the three dimensions of innovativeness, risk-taking and proactiveness.

Dependent variable: Firm performance, a seven-item self-reported scale (sales growth, market share growth, the growth of profit, return on investment, employment growth rate, customer loyalty/retention, and quality reputation and achievement award) were applied in measuring SME performance. The scale measures were taken from Sheng et al. (2011), Anderson and Eshima, (2013) and Lawal et al. (2018).

Controls. Control variables for managerial experience, marital status, age, educational level, firm age, firm size and industry were included.

4. Results

The research results are as follows after a preliminary analysis was conducted:

- There is a positive association between EO dimensions and firm performance, because the study substantiates the positive effects of innovativeness, risk-taking, and proactiveness on firm performance.
- Gender's moderating role is partially supported. Based on the findings, gender moderates the relationship between risk-taking and firm performance and that between proactiveness and firm performance, with males exhibiting stronger associations than females. However, gender's moderating effect on the relationship between innovativeness and firm performance is not statistically significant.

Table 1: Correlation matrix

	Innovativeness	Risk-taking	Proactiveness	firm performance
Innovativeness	1	.217**	.353**	.382**
Risk-taking		1	.388**	.398**
Proactiveness			1	.453**
Firm performance				1
Mean	4.937	4.910	4.969	5.068
SD	1.468	1.354	1.388	1.071

** Correlation is significant at the 0.01 level (2-tailed).

Table 2: Regression Models

Dependent Variable	Firm performance						
Control Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Years of Managerial	-	-	-	-	-	-	-
Experience	0.447***	0.346***	0.351***	0.351***	0.356***	0.313***	0.342***
Marital Status	0.034	0.055	0.056	0.032	0.052	0.055	0.071
Age	0.052	0.040	0.046	0.066	0.060	0.024	0.015
Educational Level	0.037	0.050	0.056	0.048	0.042	0.029	0.025
Firm Age	0.194***	0.176***	0.174***	0.161***	0.138**	0.163***	0.136**
Firm Size	0.055	0.071	0.069	0.042	0.048	0.050	0.040
Industry	-0.061	-0.059	-0.056	-0.060	-0.061	-0.072	-0.052
Independent Variables							
Innovativeness		0.237***	0.468**				
Risk-taking				0.255***	0.99***		
Proactiveness						0.307***	1.414***
Moderating variable							
Gender			0.215		0.836***		1.229***
Main effects and interactions							
Innovativeness*Gender (centred)			-0.319				
Risk-taking*Gender (centred)					- 0.791***		
Proactiveness*Gender (centred)							-1.24***
Constant	5.040	3.886	2.350	3.902	-1.581	3.733	-4.303
R	0.494	0.538	0.544	0.547	0.573	0.565	0.618
R ²	0.244	0.289	0.296	0.299	0.328	0.319	0.382
Adjusted R ²	0.230	0.274	0.278	0.285	0.311	0.305	0.366
R ² Change	0.244	0.045	0.007	0.055	0.029	0.075	0.064
F	17.986	19.776	16.272	20.763	18.913	22.771	23.967
F Change	17.986	24.664	1.893	30.634	8.425	42.779	19.951

** Significant at the 0.01 level; *** Significant at the 0.001 level.

It should be noted since the project is still in progress, the quantitative findings have not yet been finalised, and so has the qualitative exploration of the third research question regarding the contextualisation of gender's moderating effect in China. The study aims to employ in-depth interviews to examine the third research question as they can complement the quantitative data obtained from the questionnaire survey for an in-depth understanding of the Chinese context, including the national policy, institutional environment and so on. This study plans to invite six entrepreneurs of Chinese SMEs (3 males, 3 females) for the interview.

Each interview will last around 40 minutes and will be tape-recorded. After that, the interviews will be transcribed and applied with thematic analysis for further investigation.

5. Proposed contributions

This study proposes to make three major contributions to the existing literature. Firstly, it aims to examine the relationship between EO and firm performance among Chinese SMEs, which are hitherto under-explored. Secondly, it considers the factor of gender and examines its moderating influence on the relationship between EO and firm performance in light of inconclusive findings of previous research on EO and firm performance. Moreover, practically, the findings of this research can inform policymakers to create a more conducive environment for Chinese SMEs as well as a more equal and female-friendly condition for female entrepreneurs.

References

- Anderson, B. S., Covin, J. G., and Slevin, D. P., 2009. Understanding the relationship between entrepreneurial orientation and strategic learning capability: an empirical investigation. *Strategic Entrepreneurship Journal*, 3(3), pp.218-240.
- Anderson, B. S. and Eshima, Y., 2013. The influence of firm age and intangible resources on the relationship between entrepreneurial orientation and firm growth among Japanese SMEs. *Journal of business venturing*, 28(3), pp.413-429.
- Barney, J., 1991. Firm resources and sustained competitive advantage. *Journal of management*, 17(1), pp.99-120.
- 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*, 28(6), pp.708-727.
- Brush, C. G., Carter, N., Greene, P., Hart, M. and Gatewood, E., 2002. The role of social capital and gender in linking financial suppliers and entrepreneurial firms: A framework for future research. *Venture Capital*, 4, pp.305–323.
- Brush, C. G. and Hisrich, R. D., 2000. *Women-owned businesses: An exploratory study comparing factors affecting performance*. Research Institute for Small & Emerging Business (Rise), Working Paper 00-02, Washington DC.
- Casillas, J. C., Moreno, A. M. and Barbero, J. L., 2010. A configurational approach of the relationship between entrepreneurial orientation and growth of family firms. *Family business review*, 23(1), pp.27-44.

- Centre for Women's Business Research (2004). *Capturing the impact: Women owned businesses in the United States*. Retrieved Jun 02, 2013 from <http://www.womensbusinessresearch.org/freepublications/capturingtheimpact.pdf>.
- Coleman, S. (2002). Constraints faced by women small business owners: Evidence from the data. *Journal of Developmental Entrepreneurship*, 7, pp.151–174.
- Colla, E., Ruiz-Molina, E., Chastenet De Gery, C. and Deparis, M., 2020. Franchisee's entrepreneurial orientation dimensions and performance. Evidence from France. *The International Review of Retail, Distribution and Consumer Research*, 30(5), pp.538-554.
- Covin, J. G., Green, K. M. and Slevin, D. P., 2006. Strategic process effects on the entrepreneurial orientation–sales growth rate relationship. *Entrepreneurship theory and practice*, 30(1), pp.57-81.
- Covin, J. G. and Slevin, D. P., 1989. Strategic management of small firms in hostile and benign environments. *Strategic management journal*, 10(1), pp.75-87.
- Daily, C. M., McDougall, P. P., Covin, J. G. and Dalton, D. R., 2002. Governance and strategic leadership in entrepreneurial firms. *Journal of management*, 28(3), pp.387-412.
- Fischer, E. M., Reuber, A. R. and Dyke, L. S. (1993). A theoretical overview and extension of research on sex, gender, and entrepreneurship. *Journal of business venturing*, 8(2), pp.151-168.
- Goktan, A. B. and Gupta, V. K. (2015). Sex, gender, and individual entrepreneurial orientation: evidence from four countries. *International Entrepreneurship and Management Journal*, 11(1), pp.95-112.
- Heilman, M. E. and Chen, J. J., 2003. Entrepreneurship as a solution: the allure of self-employment for women and minorities. *Human Resource Management Review*, 13(2), pp.347-364.
- Hughes, M. and Morgan, R. E., 2007. Deconstructing the relationship between entrepreneurial orientation and business performance at the embryonic stage of firm growth. *Industrial marketing management*, 36(5), pp.651-661.
- Jansen, J. J., Simsek, Z. and Cao, Q. (2012). Ambidexterity and performance in multiunit contexts: Cross-level moderating effects of structural and resource attributes. *Strategic management journal*, 33(11), pp.1286-1303.
- Keh, H. T., Nguyen, T. T. M. and Ng, H. P. (2007). The effects of entrepreneurial orientation and marketing information on the performance of SMEs. *Journal of business venturing*, 22(4), pp.592-611.
- Knight, G.A., 2000. Entrepreneurship and marketing strategy: The SME under globalization. *Journal of International Marketing*, 8(2), pp.12–32.

- Knight, G.A., 2001. Entrepreneurship and strategy in the international SME. *Journal of International Management*, 7(3), pp.155–171.
- Kreiser, P. M., Marino, L. D., Kuratko, D. F. and Weaver, K. M., 2013. Disaggregating entrepreneurial orientation: the non-linear impact of innovativeness, proactiveness and risk-taking on SME performance. *Small business economics*, 40, pp.273-291.
- Kuivalainen, O., Sundqvist, S. and Servais, P., 2007. Firms' degree of born-globalness, international entrepreneurial orientation and export performance. *Journal of world business*, 42(3), pp.253-267.
- Li, C., 2000. Confucianism and feminist concerns: overcoming the Confucian “gender complex”. *Journal of Chinese Philosophy*, pp.187-199.
- Lin, F., Ansell, J. and Siu, W. S., 2021. Chinese SME development and industrial upgrading. *International Journal of Emerging Markets*, 16(6), pp.977-997.
- Lomberg, C., Urbig, D., Stöckmann, C., Marino, L. D. and Dickson, P. H., 2017. Entrepreneurial orientation: The dimensions' shared effects in explaining firm performance. *Entrepreneurship theory and practice*, 41(6), pp.973-998.
- Lumpkin, G. T. and Dess, G. G., 1996. Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of management Review*, 21(1), pp.135-172.
- Manolova, T. S., Carter, N. M., Manev, I. M. and Gyoshev, B. S., 2007. The differential effect of men and women entrepreneurs' human capital and networking on growth expectancies in Bulgaria. *Entrepreneurship theory and practice*, 31(3), pp.407-426.
- Marlow, S. and Patton, D., 2005. All credit to men? Entrepreneurship, finance, and gender. *Entrepreneurship theory and practice*, 29(6), pp.717-735.
- Menzies, T. V., Diochon, M., Gasse, Y. and Elgie, S., 2006. A longitudinal study of the characteristics, business creation process and outcome differences of Canadian female vs. male nascent entrepreneurs. *The International Entrepreneurship and Management Journal*, 2(4), pp.441-453.
- Menzies, T. V., Diochon, M. and Gasse, Y., 2004. Examining Venture-related Myths Concerning Women Entrepreneurs. *Journal of Developmental Entrepreneurship*, 9(2), pp.89-107.
- Messersmith, J. G. and Wales, W. J., 2013. Entrepreneurial orientation and performance in young firms: The role of human resource management. *International small business journal*, 31(2), pp.115-136.
- Miller, D., 1983. The correlates of entrepreneurship in three types of firms. *Management science*, 29(7), pp.770-791.

- Miller, D., 2011. Miller (1983) revisited: A reflection on EO research and some suggestions for the future. *Entrepreneurship theory and practice*, 35(5), pp.873-894.
- Moreno, A. M. and Casillas, J. C., 2008. Entrepreneurial orientation and growth of SMEs: A causal model. *Entrepreneurship theory and practice*, 32(3), pp.507-528.
- Olubiyi, T. O., Egwakhe, A. J., Amos, B. and Ajayi, A. A., 2019. Entrepreneurial orientation and firm profitability: Evidence from Lagos State Nigeria. *Journal of Business and Management*, 2(6), pp.42-54.
- Rauch, A., Wiklund, J., Lumpkin, G. T. and Frese, M., 2009. Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. *Entrepreneurship theory and practice*, 33(3), pp.761-787.
- Ren, C. R. and Guo, C., 2011. Middle managers' strategic role in the corporate entrepreneurial process: Attention-based effects. *Journal of management*, 37(6), pp.1586-1610.
- Runyan, R. C., Huddleston, P. and Swinney, J., 2006. Entrepreneurial orientation and social capital as small firm strategies: A study of gender differences from a resource-based view. *The International Entrepreneurship and Management Journal*, 2, pp.455-477.
- Shinnar, R. S., Giacomini, O. and Janssen, F., 2012. Entrepreneurial perceptions and intentions: The role of gender and culture. *Entrepreneurship Theory and practice*, 36(3), pp.465-493.
- Soininen, J., Martikainen, M., Puumalainen, K. and Kyläheiko, K., 2012. Entrepreneurial orientation: Growth and profitability of Finnish small-and medium-sized enterprises. *International Journal of Production Economics*, 140(2), pp.614-621.
- Tang, J., Tang, Z., Marino, L. D., Zhang, Y. and Li, Q., 2008. Exploring an inverted U-shape relationship between entrepreneurial orientation and performance in Chinese ventures. *Entrepreneurship theory and practice*, 32(1), pp.219-239.
- Wales, W. J., Gupta, V. K. and Mousa, F. T., 2013. Empirical research on entrepreneurial orientation: An assessment and suggestions for future research. *International small business journal*, 31(4), pp.357-383.
- Zhang, M., Tansuhaj, P. and McCullough, J., 2009. International entrepreneurial capability: The measurement and a comparison between born global firms and traditional exporters in China. *Journal of International Entrepreneurship*, 7, pp.292-322.
- Zhou, L., 2007. The effects of entrepreneurial proclivity and foreign market knowledge on early internationalization. *Journal of World Business*, 42(3), pp.281-293.