





- 1 The Impact of South-South FDI: Knowledge Spillovers from Chinese FDI to Local Firms
 Pisey Vicheth, Paul Whitla and Clement Chow
- 02 | Economic Integration with Chinese Mainland and Socio-economic Development in Hong Kong Geng Cui and Yuho Chung
- 03 | Business Performance in China: Ethical Cronyism and Loyalty are the key

 T.K.P. Leung and Bradley R. Barnes
- 04 An Investigation on Effect of Customer Characteristics on the Satisfaction-Loyalty Link Esther, Ling-yee Li and Wenting Zhu
- 05 | Determinants of international strategic alliance performance in E-commerce industry: Do contextual factors matter?

Mia Hsiao-Wen Ho

Vol.2, No.1 – Special Issue: Academy of International Business Southeast Asia Regional (AIBSEAR) Conference 2018

- Pairs Trading with Bitcoin | 01
 Andy, Wui-wing Cheng and Ancus, Wai-yan Shum
 - A Study on the Feasibility of Caffè | 02
 Nero Entering the Chinese Market
 Xinyi Wang and Yin Yuan
 - Responsible Leadership within the | 03 Context of Social Entrepreneurship Susanna, Lai-man Chui and Nazha Gali
 - Social Exchange Relationship | 04
- Noel, Yuen-shan Wong, Kin-kit Li and Pingping Fu
- Female Entrepreneurship in Emerging | 0 Economies: What do we need to know?

Tony, Chun-kwong Koo, Gaston Fornes, Camelia Ilie, Guillermo Cardoza, Abel Monfort, and Maria Altamira

The Hang Seng University of Hong Kong Business Review Editorial Team

Editors-in-Chief

Bradley R. Barnes

The Hang Seng University of Hong Kong (HSUHK), Hong Kong

Email: bradleybarnes@hsu.edu.hk

Felix Tzu Lung Tang, HSUHK

Email: felixtang@hsu.edu.hk

Associate Editors

Accountancy	Kevin Chee Keung Lam, <i>HSUHK</i>
Economics and Finance	Ben Ka Ming Cheng, <i>HSUHK</i>
Management	Jeanne Ho Ying Fu, <i>HSUHK</i>
Marketing	Dongmei Li, South China Normal University
Supply Chain and Information Management	Ricky Siu Kuen Wong, <i>HSUHK</i>

Editorial Reviewer Board

T. S. Chan, <i>Lingnan University, H.K.</i>	Alfred Ma, CASH Algo Finance Group Ltd., H.K.		
Fanny Fong Yee Chan, <i>HSUHK</i>	Thomas Wing Yan Man, <i>HSUHK</i>		
Haksin Chan, <i>HSUHK</i>	Tirta N Mursitama, <i>Bina Nusantara University, Indonesia</i>		
James Tsun Se Cheong, <i>HSUHK</i>	lan Phau, <i>Curtin University, Australia</i>		
Yingyot Chiaravutthi, Mahidol University International College,	Tomoki Sekiguchi, Kyoto University, Japan		
Thailand			
Warren Chi Kwan Chiu, H K Polytechnic University, SPEED	Piyush Sharma, Curtin University, Australia		
Geng Cui, <i>Lingnan University, H.K</i> .	Tsui Yii Shih, National Taipei University of Business, Taiwan		
Sanjaya Singh Gaur, Sunway University, Malaysia	Yue Wang, <i>HSUHK</i>		
Lisa Goh, <i>HSUHK</i>	Edward Yui Tim Wong, <i>Lingnan University, H.K</i> .		
In Mu Haw, Texas Christian University, USA	Woody Y. Wu, Chinese University of Hong Kong		
Eva Yeung Wah Khong, City University of Macau, Macau	Rita Wing Yue Yip, <i>HSUHK</i>		
Alicia S. M. Leung, Hong Kong Baptist University	Denghua Yuan, Guangdong University of Foreign Studies, China		
Casey Lim, China at Macquarie Applied Finance Centre, H.K.	Fue Zeng, Wuhan University, China		
Eko Yi Liao, <i>HSUHK</i>	Lianxi Zhou, <i>Brock University, Canada</i>		
Kenny Zhen Pin Lin, <i>Lingnan University, H.K</i> .			

Editorial Support Team

Jay Thomas Parker, <i>HSUHK</i>	Catherine Yuen Wing Wong, HSUHK	
Donovan Richard Grose, <i>HSUHK</i>	Sue Sui Ping Yip, <i>HSUHK</i>	
Charles Tsz Kwan Lam USIIUK		

Messages from the Co-editors-in-Chief

Thank you for reading the third issue of The Hang Seng University of Hong Kong (HSUHK) Business Review.

HSUHK Business Review is a general business publication, produced by the Hang Seng University of Hong Kong, a private university in Hong Kong with around 5,000 students.

This publication serves as a platform for research and scholarship on business-related themes and topics. It is designed to stimulate discussions among academia, researchers, business professionals and other influential thought leaders about advances in business practice in East Asia.

It aims to circulate new business-related research and innovative ideas, especially surrounding interdisciplinary subjects, so that business professionals can benefit from the work that appears in this publication.

We encourage contributions from around the globe with a focus on East Asian business. We publish articles around 2,000 – 3,000 words in total. We welcome empirical, conceptual and methodological articles across the full range of business related disciplines, including but are not limited to Business, Management, Accounting, International Business, Supply Chain and Logistics, Tourism and Hospitality, Entrepreneurship and Innovation, Economics, Finance and Marketing. If you are interested in submitting your manuscript, please contact the Editorial Team at businessreview@hsu.edu.hk for further details.

Last but not least, our heartfelt gratitude is expressed to all corresponding authors, Editorial Board members, and Editorial Support Team for making this publication possible.

Please enjoy the read!!

Professor Bradley R. Barnes

G.S. Barnet

Co-editor-in-Chief

Dr. Felix Tang

Co-editor-in-Chief

(ZD/Ang



Table of Contents

Vol.2, No.1 Special Issue: Academy of International Business Southeast Asia Regional (AIBSEAR) Conference 2018

The Impact of South-South FDI: Knowledge Spillovers from Chinese FDI to Local Firms

Pisey Vicheth, Paul Whitla and Clement Chow

80 or older

12 Economic Integration with Chinese Mainland and Socio-economic Development in Hong Kong

Geng Cui and Yuho Chung

- Business Performance in China: Ethical Cronyism and Loyalty are the key T.K.P. Leung and Bradley R. Barnes
- An Investigation on Effect of Customer Characteristics on the Satisfaction-Loyalty Link

Esther, Ling-yee Li and Wenting Zhu

Determinants of international strategic alliance performance in E-commerce industry: Do contextual factors matter?

Mia Hsiao-Wen Ho

Vol.2, No.2 Regular Issue

49 Pairs Trading with Bitcoin

Andy, Wui-wing Cheng and Ancus, Wai-yan Shum

- A Study on the Feasibility of Caffè Nero Entering the Chinese Market Xinyi Wang and Yin Yuan
- Responsible Leadership within the Context of Social Entrepreneurship Susanna, Lai-man Chui and Nazha Gali
- 72 Social Exchange Relationship in the Workplace
 Noel, Yuen-shan Wong, Kin-kit Li and Pingping Fu
- Female Entrepreneurship in Emerging Economies: What do we need to know?

 Tony, Chun-kwong Koo, Gaston Fornes, Camelia Ilie, Guillermo Cardoza, Abel Monfort, and Maria Altamira



Pisey Vicheth, Paul Whitla and Clement Chow

Lingnan University, Hong Kong

INTRODUCTION

When MNCs engage in investment in a country, they bring knowledge spillovers into the local market to a greater or lesser extent. Such spillovers refer to knowledge invented by a unit (multinational) which is used by another unit (a local firm) for which the latter is not required to fully pay (Javorcik, 2004). Many developing countries have tried to attract and promote foreign investment in the economy, since they believe that FDI, and the 'spillover effect" it creates, is the source for their industrial development and economic growth (Anwar & Nguyen, 2011; Kneller & Pisu, 2007).

There are many factors to be taken into consideration when examining whether knowledge spillovers occur and to what extent the local economy can benefit from such spillovers: the breadth and depth of FDI linkages, local industry's awareness of possible knowledge, motivation to learn, absorptive capacity, embeddedness in a business relationship, et cetera. Due to their associated benefits, FDI spillovers have been widely studied, however most previous

work has been restricted to north-north (Girma, Greenaway, & Wakelin, 2013; Harris & Robinson, 2004), and north-south interactions (Aitken & Harrison, 1999; Javorcik, 2004; Lin, Liu, & Zhang, 2009). Few studies of south-south FDI exist (Anwar & Nguyen, 2011, 2014; Kubny & Voss, 2014; Le & Pomfret, 2011) and very few have examined the impact of inward investment from mainland China – now the largest source of south-south FDI.

This paper develops a generic model of south-south FDI spillover effects, and then prepares the groundwork for the testing of such a model in a more specific context of Chinese investment in other emerging markets. The model is intended to uncover when, where and under what conditions do knowledge spillovers from a developing country to another less-developed economy occur. Also, the model allows for consideration of whether South-South spillovers lead to improvement in domestic firms' technological capabilities and export performance.

THEORETICAL FRAMEWORK

The model that has been developed is based upon the existing 'awareness-motivation-capability' (AMC) framework of competitive dynamics (Chen et al., 1992). We extend the AMC model from its original use on rivalry behaviour into the study of FDI knowledge spillovers by examining the specific interacted roles between the three components and firms' technological capabilities. In this study of knowledge spillovers, awareness refers to the extent to which domestic firms can recognise the valuable information from knowledge made visible from foreign investors, motivation means their incentive to learn the new knowledge, and capability is their absorptive capacity to employ knowledge gained from FDI, then exploit it for their own purposes. The theoretical framework begins with an investigation of the effects of different measures of FDI linkages (horizontal and vertical) on possible knowledge spillovers accruing to indigenous firms. Then it identifies how domestic businesses gain the spillovers based on their awareness of FDI's presence and learning opportunities, motivation to learn, and absorptive capacity. Finally, the framework examines whether the knowledge spillovers play a significant role in increasing local units' technological capability and if this assists in accelerating export performance. Figure 1 below represents the research's conceptual framework and illustrates the hypothesized relationships.

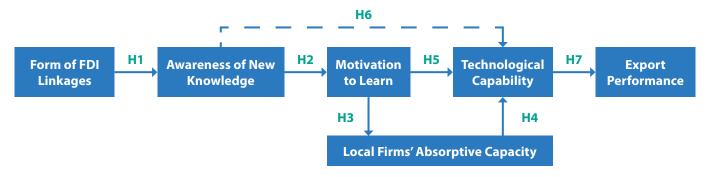


Figure 1 Knowledge Spillovers from FDI to Local Firms

DEVELOPMENT OF HYPOTHESES

The framework is based on extensive literature review that has been built into the model through the development of a number of hypotheses, explained below. In addition to the general model, additional hypotheses have been posited that address the impact of south-south as opposed to north-south FDI. How these hypotheses and model can be empirically tested, using the specific case of Chinese outward investment is addressed in the discussion concluding the paper.

FDI Linkages and Awareness

FDI linkages can lead to either 'horizontal' or 'vertical' spillovers. Horizontal spillovers refer to when local firms can improve their productivity from the presence of foreign investment in the same industry (Lin, Liu, & Zhang, 2009). There are three channels for this occurrence; firstly, demonstration effect: local units can absorb new knowledge by observing and imitating the foreign partners or competitors; secondly, worker mobility: the knowledge that is passed to the workforce can be diffused from MNEs to domestic firms when the employees move to work at a local company, or they start their own firms; thirdly,

competition effect: the domestic firms try to restructure and boost their productivity to compete with the foreign entrants (Girma & Gong, 2008).

Vertical spillovers can be classified either as 'backward' or 'forward'. Liang (2017) points out that domestic firms receive backward spillovers when foreign buyers transfer technology through training or technical assistance to increase the local plants' productivities, and forward spillover when indigenous firms get higher-quality inputs or machinery from their foreign suppliers. Foreign customers may help domestic suppliers to enhance their technological capabilities through sharing production design and techniques. Du, Harrison, and Jefferson (2012), and Thang, Pham, and Barnes (2016) claim that FDI generates positive spillovers to domestic firms when local firms are linked with their foreign customers. The spillovers are likely to diffuse through employee training, advance payment, provision of inputs, organisations of product lines, as well as assistance with quality assurance and machinery (Crespo & Fontoura, 2007).

Lin et al. (2009) postulate that overseas firms' activities are exposed to domestic parties, who can inspect the new technologies and management know-how then copy them to use in their own operations. Foreign firms commonly wish to avoid knowledge leakage; however, in order to improve the quality of their own inputs and outputs, foreign-invested firms are driven to transfer their production techniques to domestic suppliers and customers (Javorcik, 2004).

Direct exposure to foreign investments in both inter and intra-industries allow local firms to recognise the differences between their own methods and the business approaches

and technologies being used by foreign firms.

These differences provoke local companies' awareness of the importance of the new knowledge they need to learn to compete effectively in the global market (Cui, Meyer, & Hu, 2014). The more they face with foreign-invested firms, the more they are aware of how the foreign-invested businesses are being run and the more aware they become of alternative methods and technologies. This leads to:

Hypothesis 1a. The greater the extent that domestic firms are exposed to FDI through horizontal linkages, the more aware they will be of new methods and technologies.

Hypothesis 1b. The greater the extent that domestic firms are exposed to FDI through backward linkages, the more aware they will be of new methods and technologies.

Hypothesis 1c. The greater the extent that domestic firms are exposed to FDI through forward linkages, the more aware they will be of new methods and technologies.

Cuervo-Cazurra and Genc (2008) proposed that when a developing-country firm invests in another less-developed economy, its previous experience of working in similar conditions may create an easy-adapted environment for other developing countries. Moreover, the similarities in culture, product facilities, and level of technology development between home and host countries may allow them to work in the same market segment. Therefore:

Hypothesis 1d. Emerging market firms gain more awareness of new knowledge from developing country FDI than developed country FDI.

Awareness and Motivation

The domestic firms' motivation to act will be dependent upon the incentives they are facing. For a unit to participate in knowledge or technology catch-up, the motivation must emerge from perspectives of survival, growth, as well as competitiveness (Cui, Fan, Liu, & Li, 2017). Frequent interactions with foreign firms can evoke the competitive

benchmarking of global rivals; domestic plants subsequently are motivated to learn foreign knowledge assets that help narrow the competency gap. According to expectancy-valence theory (Vroom, 1964), two basic factors that provoke the tendency to act are the subjective reward value (valence) of acting effectively, and the perceived probability or

expectation of earning the reward (expectancy). Therefore:

Hypothesis 2a: The more that domestic firms are aware of new methods and technologies through horizontal linkages, the more they are motivated to learn that knowledge.

Hypothesis 2b: The more that domestic firms are aware of new methods and technologies through backward linkages, the more they are motivated to learn that knowledge.

Hypothesis 2c: The more that domestic firms are aware of new methods and technologies through forward linkages, the more they are motivated to learn that knowledge.

MNCs from developing economies share similar domestic needs, production structures, market sizes, and adaptive capabilities to those of local firms (in developing countries), while MNCs from developed countries tend not to do so (Agyei-Holmes, 2016; Xu, Li, Qi, Tang, & Mukwereza, 2016). As a result, the FDI that comes from other developing countries tends to have more appropriate technologies and methods to those of local firms. Dahi and Demir (2017) claim that "South-South exchanges can still offer a developmental promise that might be missing in North-South exchanges" (2017:32), this is supported by Kokko, Tansini, & Zejan (1996) who find cases where foreign and local firms having a moderated knowledge gap yielded the greatest spillovers. Therefore:

Hypothesis 2d: emerging market firms are more motivated to learn knowledge from FDI from developing rather than developed countries.

Motivation and Absorptive Capacity

Firms that have been motivated to learn new methods and knowledge from FDI have already established prior knowledge that facilitates their ability to acquire, assimilate, transform, and exploit (absorptive capacity) new related knowledge (Cohen & Levinthal, 1990; Schilling, 2002). Schilling (2002) stated that "the potential for developing absorptive capacity indicates the learning accrued in any development effort may positively impact a firm; the subject of the learning may not need to be closely related to a particular project to yield benefits" (2002:390). It may be in the firms' interest to learn to obtain broader capacities so that they can fulfil future market requirements.

Hypothesis 3: Domestic firms' motivation to learn knowledge is positively related to their absorptive capacity.

Technological Capabilities and Absorptive Capacity of Local Firms

Technological capability (TCAP) refers to skills, namely technical, managerial, organisational, and marketing that a unit absorbs from interaction with the environment then utilise it efficiently, improve and expand it over time, and develop new products and processes (Lall, 1992; Najmabadi & Lall, 1995). A firm's technological capability is largely dependent upon its existing levels of absorptive capacity (Liu, Ke, Wei, & Hua, 2013). Increasing firms' technological capability requires knowledge to be accumulated and stored (Afuah, 2002) which only firms with enough absorptive capacity can achieve. Rothaermel and Alexandre

(2009) state that when a unit obtains a high enough level of absorptive capacity, it is likely to not only be more receptive to opportunities that demonstrate themselves in their technological environments but also more aggressive in exploiting those opportunities by linking internal and external sources of knowledge. In consequence, the combined knowledge may result in stronger technological capabilities.

Hypothesis 4: Domestic firms' absorptive capacity is positively related to their technological capabilities.

Motivation and Technological Capabilities of Local Firms

Afirm with a high level of motivation to learn new knowledge is not only a knowledge storehouse, but also a processor of it (Calantone, Cavusgil, & Zhao, 2002). These firms do not tend to miss the chances created by market demands since they have the knowledge and ability to comprehend and anticipate customer needs (Damanpour, 1991). Feedback from clients, channels, and competitors will be considered to enhance their capabilities. Hence, they foresee market

changes and make adjustments. Highly motivated firms are likely to guide to a new technological generation by themselves, as well as to be able to react quickly when others propose new technologies. This leads to:

Hypothesis 5a: Domestic firms' motivation to learn new knowledge is positively related to their technological capability.

Absorptive Capacity and Motivation as Mediators

When a firm has strong absorptive capacity, they can acquire the FDI knowledge spillovers, assimilate them, explore the new practices, and exploit them to use for their own purposes. These practices would yield positive impacts on their technological capabilities such as technology, management, organisational, and marketing capabilities. It is expected that firms that have been motivated to learn from FDI acquire greater absorptive capacity. If indigenous firms intend to learn the new knowledge, they need to have sufficient capacity to absorb the knowledge so that they can assimilate the new information and then utilize it for upgrading their technological capabilities. Therefore:

Hypothesis 5b: Domestic firms' absorptive capacity has a mediating effect on the relationship between their motivation to learn new knowledge and their technological capability.

Similarly, awareness conditions are necessary for domestic firms to recognise new knowledge assets that have potential to help them improve their technological capabilities to close the competency gap with global market leaders (Cui et al., 2017). However, awareness alone is not sufficient to provoke knowledge catch-up activities if the local plants do not possess adequate motivation to learn (Luo & Tung, 2007). Motivation may be a discretionary element that encourages learning, as companies decide to engage in knowledge catch-up enthusiastically after being aware of the value of new knowledge from FDI (Rui & Yip, 2008). Therefore:

Hypothesis 6: Domestic firms' motivation to learn new knowledge has a mediating effect on the relationship between their awareness of new knowledge and their technological capability.

Technological Capabilities and Export Performance

In our model, one result of developing technological capability is the impact that it can have on a firm's export performance, the outcome of a unit's activities in export market (Shoham, 1996). Ernst et al. (1998) and Flor and Oltra (2005) find that a higher level of technological capability is vital for increasing firms' export performance. Guan and Ma (2003) study export performances of Chinese firms and find

that the improvement of innovation capabilities (learning, R&D, marketing, organisational, resource allocating and strategy planning capabilities) has great effects on the firms' export growth.

Hypothesis 7: Domestic firms' export performance is positively related to technological capability.

DISCUSSION AND FUTURE DEVELOPMENT

The above model of the impact of knowledge spillovers on recipient firms of FDI is generic in the sense that it could be used to study FDI from any location to any other. However, the model is robust enough to be used for the specific purpose of examining south-south investment and to conduct comparative studies that will look at the impact on developing country recipient firms of FDI linkages with firms from developed countries as compared to that from other developing economies. Making use of the model in this way will allow for a degree of clarity to be brought to the question of whether developing country recipients of FDI garner as much, or more of, a spillover benefit from other emerging market investments as they do from developed country investments.

The hypotheses presented above have been supplemented (hypotheses 1d and 2d) with a means for testing the impact of south-south as opposed to north-south FDI. The debate on this issue is ongoing with some suggesting that the superior technological standards of developed country firms are inclined to lead to more opportunities for spillovers and development; or whether the common characteristics of emerging market firms, and perhaps a lower 'technology gap' may be more conducive to technological progress (Lall 1980, Luo et al. 2011). Use of this proposed model

and testing of this full set of hypotheses will allow for some clarity on these relationships to be established.

The growth of south-south FDI has of course been led by the international investments of mainland Chinese firms in recent years. Such Chinese investment has brought significant levels of controversy with it, and the impact of Chinese investment has often been portrayed as limited as it is often restricted to lower technology industries and brings little in the way of training or financial support for local firms (Kubny and Voss 2014). Empirical testing of the model will be utilized to determine exactly what forms of FDI linkages and spillovers are being achieved in the case of Chinese investment and how this impacts the development of local firms. Our intent going forward is to utilize the developed theoretical framework to empirically evaluate the spillover benefits, in terms of technological development and export performance, achieved by foreign invested firms in the country of Cambodia, a country where China is the largest foreign investor and where government plans are to achieve significant technological improvement. Comparison of the impact of investment by Chinese firms as opposed to investments from developed country firms will lead to results that have an impact on emerging market firm strategy and government policy in these regions.

References

Afuah, A. (2002). Mapping technological capabilities into product markets and competitive advantage. Strategic Management Journal, 23(2): 171–179.

Agyei-Holmes, A. (2016). Tilling the soil in Tanzania: What do emerging economies have to offer? European Journal of Development Research, 28(3): 379-396.

Aitken, B. B. J., & Harrison, A. N. N. E. (1999). American Economic Association Do Domestic Firms Benefit from Direct Foreign Investment? Evidence from Venezuela Author (s): Brian J. Aitken and Ann E. Harrison Source: The American Economic Review, Vol. 89, No. 3 (Jun., 1999), pp. 605-618 Pu. The American Economic Review, 89(3), 605-618.

Anwar, S., & Nguyen, L. P. (2011). Foreign direct investment and export spillovers: Evidence from Vietnam. International Business Review, 20(2), 177–193.

Anwar, S., & Nguyen, L. P. (2014). Is foreign direct investment productive? A case study of the regions of Vietnam. Journal of Business Research, 67(7), 1376–1387.

Calantone, R. J., Cavusgil, S. T., & Zhao, Y. S. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial Marketing Management,* 31(6): 515–524.

Chen, M.-J., Smith, K. G., & Grimm, C. M. (1992). Action Characteristics as Predictors of Competitive Responses. Management Science, 38(3), 439–455.

Crespo, N., & Fontoura, M. P. (2007). Determinant factors of FDI spillovers: What do we really know? World Development, 35(3): 410-425.

Cuervo-Cazurra, A., & Genc, M. (2008). Transforming disadvantages into advantages: Developing-country MNEs in the least developed countries. Journal of International Business Studies, 39(6): 957–979.

Cui, L., Fan, D., Liu, X., & Li, Y. (2017). Where to seek strategic assets for competitive catch-up? A configurational study of emerging multinational enterprises expanding into foreign strategic factor markets. Organization Studies, 38(8): 1059–1083.

Cui, L., Meyer, K. E., & Hu, H. W. (2014). What drives firms' intent to seek strategic assets by foreign direct investment? A study of emerging economy firms. Journal of World Business, 49(4): 488–501.

Dahi, O. S., & Demir, F. (2017). South-South and North-South economic exchanges: does it matter who is exchanging what and with whom? Journal of Economic Surveys, 31(5): 1449–1486.

Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. Academy of Management Journal, 34(3): 555-590.

Du, L., Harrison, A., & Jefferson, G. H. (2012). Testing for horizontal and vertical foreign investment spillovers in China, 1998-2007. *Journal of Asian Economics*, 23(3): 234–243.

Ernst, D., Ganiatsos, T., & Mytelka, L. K. (1998). Technological capabilities and export success in Asia. New York: Routhledge.

Flor, M., & Oltra, M. J. (2005). The influence of firms' technological capabilities on export performance in supplierdominated industries: The case of ceramic tiles firms. R and D Management, 35(3), 333–347.

Girma, S., Greenaway, D., & Wakelin, K. (2013). Who Benefits from Foreign Direct Investment in the UK? Scottish Journal of *Political Economy*, 60(5), 560–574.

Girma, S., & Gong, Y. (2008). FDI, linkages and the efficiency of state-owned enterprises in China. The Journal of *Development Studies*, 44(5): 728-749.

Guan, J., & Ma, N. (2003). Innovative capability and export performance of Chinese firms. *Technovation*, 23(9): 737–747.

Harris, R., & Robinson, C. (2004). Productivity Impacts and Spillovers from Foreign Ownership in the United Kingdom. *National Institute Economic Review,* 187(1), 58–75.

Javorcik, B. S. (2004). Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers through Backward Linkages Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers Through Backward Linkages. *The American Economic Review*, 94(3), 605–627.

Kneller, R., & Pisu, M. (2007). Industrial linkages and export spillovers from FDI. World Economy, 30(1), 105–134.

Kokko, A., Tansini, R., & Zejan, M. C. (1996). Local technological capability and productivity spillovers from FDI in the Uruguayan manufacturing sector. *Journal of Development Studies*, 32(4), 602–611.

Kubny, J., & Voss, H. (2014). Benefitting from Chinese FDI? An assessment of vertical linkages with Vietnamese manufacturing firms. *International Business Review*, 23(4), 731–740.

Lall, S. (1992). Technological capabilities and industrialization. World Development, 20(2), 165–186.

Le, Q. H., & Pomfret, R. (2011). Technology Spillovers from Foreign Direct Investment in Vietnam: Horizontal or vertical spillovers? *Journal of the Asia Pacific Economy,* 16(April), 23.

Liang, F. H. (2017). Does foreign direct investment improve the productivity of domestic firms? Technology spillovers, industry linkages, and firm capabilities. *Research Policy*, 46(1): 138–159.

Lin, P., Liu, Z., & Zhang, Y. (2009). Do Chinese domestic firms benefit from FDI inflow?. Evidence of horizontal and vertical spillovers. *China Economic Review*, 20(4), 677–691.

Liu, H., Ke, W., Wei, K. K., & Hua, Z. (2013). The impact of IT capabilities on firm performance: The mediating roles of absorptive capacity and supply chain agility. *Decision Support Systems*, 54(3): 1452–1462.

Luo, Y., & Tung, R. L. (2007). International expansion of emerging market enterprises: A springboard perspective. *Journal of International Business Studies*, 38(4): 481–498.

Luo, Y., Zhao, H., Wang, Y. and Xi, Y. (2011) Venturing abroad by emerging market enterprises: a test of dual strategic interests. *Management International Review*, 51(4), 433-459

Najmabadi, F., & Lall, S. (1995). Developing industrial technology: lessons for policy and practice, 119.

Rothaermel, F. T., & Alexandre, M. T. (2009). Ambidexterity in technology sourcing: The moderating role of absorptive capacity. *Organization Science*, 20(4): 759–780.

Rui, H., & Yip, G. S. (2008). Foreign acquisitions by Chinese firms: A strategic intent perspective. *Journal of World Business*, 43(2): 213–226.

Schilling, M. (2002). Technology success and failure in winner-take-all markets: The impact of learning orientation, timing and network externalities. *Academy of Management Journal*, 45(2): 387–398.

Shoham, A. (1996). Marketing-mix standardization: Determinants of export performance. *Journal of Global Marketing*, 10(2), 53–73.

Thang, T. T., Pham, T. S. H., & Barnes, B. R. (2016). Spatial spillover effects from foreign direct investment in Vietnam. *The Journal of Development Studies*, 52(10): 1431-1445.

Vroom, V. H. (1964). Work and motivation. New York: Wiley.

Xu, X., Li, X., Qi, G., Tang, L., & Mukwereza, L. (2016). Science, technology, and the politics of knowledge: The case of China's agricultural technology demonstration centers in Africa. *World Development*, 81: 82–91.



Geng Cui and Yuho Chung

Lingnan University, Hong Kong

INTRODUCTION

Economic integration between mainland China and Hong Kong has been constantly evolving over the past three decades. However, a deliberate evaluation of economic integration is difficult when it is not properly defined or measured. We construct a Chinese mainland - Hong Kong Economic Integration Index (1990 to 2016) and compare it with other key socio-economic indicators of the territory.

The results suggest that the two economies have become highly integrated and interdependent on each other. While such integration is largely associated with economic development of Hong Kong, it also reveals deep-rooted problems in economic disparity, governance, and identity, which present significant challenges in policy discourse and making in years ahead.

BACKGROUND

Economic Integration

Economic integration is a broad and complex relationship in which two or more countries, regions, or economic entities become increasingly interrelated and interconnected through the promotion of free and fair trade. Although economic integration is often referred to as the expansion of trade, there is no single definition. Balassa (1961) refined the definition of economic integration by defining it as both a state and a process that enables member countries

to achieve a variety of common goals through joint or integrated actions that could not as easily be achieved by unilateral measures. Building on Balassa's perspective, many researchers have viewed integration as a process of removing discriminatory barriers between different economic entities (Maksimova, 1976; Pelkmans, 1984). Another group of scholarars have viewed integration as a state, that is, the absence of the forms of discrimination referred to in Balassa's

definition. Price equalization, equal treatment without discrimination, and the creation of common markets are the major characteristics of this state (Holzmann, 1976; Swann, 1996). Other researchers have viewed economic integration as a means to improve national welfare (Jovanovic, 2006). Therefore, economic integration can foster the free movement of goods and the factors of production.

Clearly, there is no agreed upon definition of economic integration. It can be categorized as a driving force, a transmission channel, or a consequence of processes that (1) eliminate economic barriers to trade and investment, (2) liberate the factors of production, and (3) encourage resource allocation and efficiency of production among various economic entities.

Characteristics of the Mainland-Hong Kong Integration

Existing measurements of economic integration are an important resource; however, to construct an index of mainland-Hong Kong integration it is necessary to consider the particular characteristics of the "one country, two systems" context. First, unlike the usual type of economic integration, only a small proportion of the bilateral trade between the mainland and Hong Kong involves finished products, which signals a relatively weak integration of the goods market. The mainland-Hong Kong integration is characterized by a division of labor in a cross-border regional production system in which intermediate goods are the major component of the bilateral trade. The raw materials and end products are mostly imported from and exported to other countries. Only a very small proportion of the imports coming from the mainland are retained in Hong Kong (Ash & Kueh, 1993). Accordingly, rather than using general measures of trade volume (e.g., imports and exports over GDP) to assess the processes of integration, it is necessary to disaggregate the measurement to distinguish integration of the production system from integration of the goods market. Second, integration in the early period was driven by the economic motives of private enterprises (Zhang, 2005). Institutional initiatives, such as CEPA, the Individual Visiting Scheme, and the Shanghai-Hong Kong stock market connection, appeared only after the 2000s. Therefore, measurements of the driving forces defined by the institutional participants may underestimate the degree of economic integration in this case.

Third, integration between the Chinese mainland and Hong Kong is characterized by its asymmetry. Hong Kong is a globalized economy that is tightly integrated with the world. In contrast, the mainland is still transforming from a closed economy to an open economy with substantial restrictions on various cross-border economic activities. Constructing an index that reveals this asymmetry is therefore advisable. It should be noted that any measurements of the equalization between the two economies based on the consequences of integration that fail to reveal the asymmetrical aspect of the integration process may underestimate the actual level of integration. Lastly, the integration of the Chinese mainland and Hong Kong has so far been limited to border integration (Ho & So, 1997). Economic integration has mainly taken place between Guangdong Province and Hong Kong. This could lead to contradictory conclusions if the measures of integration are not properly adjusted. The integration of prices and wage would be higher between Hong Kong and Guangdong Province than between Hong Kong and all of the Chinese mainland. Therefore, this study takes all of these factors into consideration when collecting data, and constructing the integration index.

RESEARCH METHODOLOGY

Indicators of Economic Integration

Consistent with existing theory and practice, the indicators for the mainland-Hong Kong Index measure the driving forces, transmission channels, and consequences of the integration. Existing integration indicators used in regional economies are important references for this study. The data are mainly extracted from the Hong Kong Census and Statistics Department and the National Bureau of Statistics of China. We

construct the economic integration index using three sets of indicators: (1) the driving forces (antecedents) of economic integration, (2) the transmission channels through which the integration forms and influences the economy, and (3) the consequences of integration, all from government agencies and international organizations.

Indicators of the driving forces of integration

Driving forces include the institutional arrangements and infrastructures that allow free movements of capital, goods, and people. From the Hong Kong Trade and Industry department, we obtain the number of regional headquarters/ regional offices/local offices of mainland Chinese firms in Hong Kong. We count the number of zero tariff codes signed by both parties. From the Hong Kong Transport Department, we use the number of control points, the number of crossboundary trains, and the number of cross-border buses between Hong Kong and mainland as proxies for the convenience of transportation. The Immigration and Custom Departments provide information on the control points, and the Hong Kong MTR Corporation provides information on the number of trains between the Chinese mainland and Hong Kong. We also include the number of busses (including coach and shuttle bus) that pass through the control points each day.

Indicators of the transmission channels of integration

Transmission channels ensures the efficient movement of capital, goods, and people and improve factor allocation. We collect data on the direct investment (both inflow and outflow) between Hong Kong and the Chinese mainland (Hong Kong Census & Statistics Department - HKCSD). For the movement of people, we use the number of visitors (in terms of transactions) from the Chinese mainland as a proxy for the movement of people from the Chinese mainland to Hong Kong (Hong Kong Tourism Board). We also count the number of Hong Kong residents visiting the mainland, the number of visitors coming from the Chinese mainland, the share of spending done by mainland visitors, the daily cross-boundary trips between the Chinese mainland and Hong Kong (HKCSD). We collect Hong Kong's external merchandise trade statistics from HKCSD and the Customs Department to measure the trade volume between Hong Kong and mainland by land, air, water, and post.

Indicators of the consequences of integration

The degree of economic integration is reflected in the degree of synchronization between the business cycles of two places, including GDP (World Bank), convergence of the Consumer Price Indexes (CPI) of the two economies, GDP per capita, cross-border marriage (HKCSD), the number of Hong Kong residents studying in mainland China and the number of mainland residents studying in Hong Kong (Kong Kong Immigration Department and Education Bureau).

Statistical Approach

The index is constructed using standard statistical methods. The most popular statistical weighting method is principal component analysis (PCA), which is used by the KOF Index of ${\sf Globalisation}, {\sf CSGRGlobalisationIndex}, and {\sf NewGlobalisationIndex}, and {\sf NewGlo$ Index (B. Chen & Woo, 2010). We use PCA to aggregate the indicators. Different normalization methods (e.g., z-score) and aggregation methods (e.g., equal weighting) are also used in the sensitivity analysis. Then, we use multivariate time series modeling to study the dynamic relationships between the evolution of the integration index and some economic, social, and political trends. We use the vector error correction model

(VECM) and perform co-integration analysis to analyze the data (Lütkepohl, 2005). Co-integration analysis is a popular econometric tool used to test the dynamic between time series data, including the macroeconomic variables, and indices. It is considered a suitable econometric method because it avoids the issue of spurious regression that frequently occurs in time series data. We then conduct co-integration analysis to investigate whether there are long-term equilibrium relationships between economic integration and the various important economic, social, and political trends.

FINDINGS

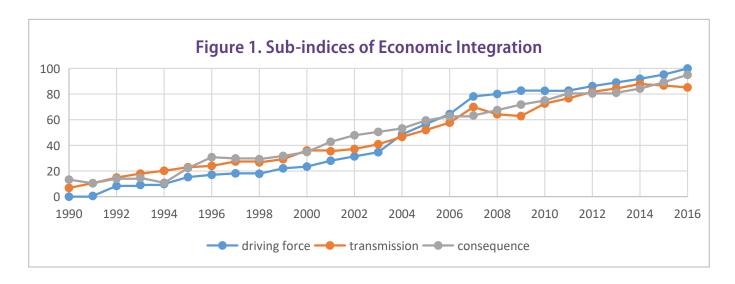
The proposed index consists of 21 objective components selected to measure the economic integration between the Chinese mainland and Hong Kong in three areas: (I) driving forces of integration, (II) transmission channels of integration, and (III) consequences of integration. Table 1

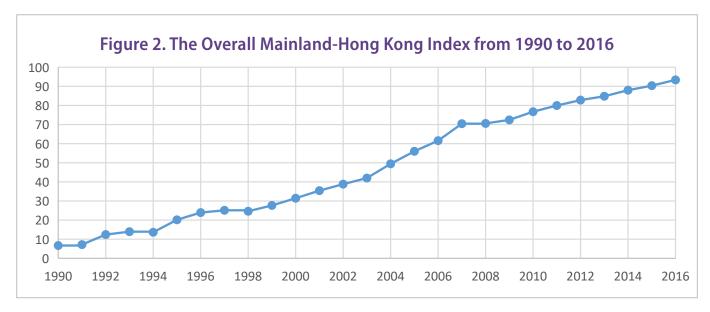
reports the weights of the indicators for each sub-index and the weights of each sub-index in the overall integration index. The weights for each of the three sub-indices are almost one-third, meaning that they are equally important to the overall index.

Table 1. Components of Mainland-Hong Kong Index

I. Driving forces of Economic Integration	[33.37%]
a) Number of zero tariff codes	(20.20%)
b) Number of control points	(20.37%)
c) Number of regional offices	(20.76%)
d) Number of daily cross-border trains	(17.93%)
e) Number of cross-border buses (including Coach and Shuttle Bus)	(20.74%)
II. Transmission Channel of Economic Integration	[33.40%]
Flow of people	
a) Visitors from mainland	(10.7%)
b) HK residents to mainland	(10.8%)
c) Proportion of spending from mainland visitors	(11.4%)
d) Daily cross boundary vehicle trips	(10.4%)
Flow of Goods	
e) Import from mainland	(11.8%)
f) Domestic export to mainland	(10.7%)
h) Re-export to mainland	(11.8%)
Flow of capital	
i) Inward position from mainland	(11.1%)
j) Outward position to mainland	(11.4%)
III. Consequence of Economic Integration	[33.22%]
a) convergence in GDP per capita	(23.7%)
b) Price equalization	(18.2%)
c) Difference in inflation rate	(14.2%)
d) Difference in real interest rate	(1.6%)
e) Cross boundary students	(17.2%)
f) Cross boundary workers	(23.0%)
g) Cross-boundary marriage	(2.2%)

Figure 1 presents the values of the three sub-indices during the 1990 to 2016 period. We see that in the early years the transmission channel, i.e., the trade and investment activities of the two sides, played an important role in the process of economic integration. In 2006, the driving forces, such as the CEPA agreement, facilitated the closer cooperation of the two economies. The transmission channel sub-index drops a little bit between 2007 and 2009 due to the global financial crisis. However, the overall economic integration in Figure 2 still moved upward due to the introduction of several governmental policies such as the Individual Visit Scheme, which further enhanced the joint cooperation and economic integration.





Integration Integration and Socio-Economic Indicators

Next, we examine how the index relates to the key economic and social indicators (Table 2), including GDP, unemployment rate, Gini coefficient, and confidence, identity, and happiness indices. These data are retrieved from different public databases. GDP and unemployment rate data are from the Hong Kong Statistics and Census Department. The data on

people's ethnic identity and confidence in Hong Kong's future are extracted from the Hong Kong University Public Opinion Programme. The happiness index is derived from the Centre for Public Policy Studies of Lingnan University. The data are organized as annual time series for the 1990 to 2016 period.

Table 2. Economic and Social Variables

Variables	Source	Data period		
Economic indicator				
GDP	HKCSD	1990-2016		
Per capita GDP	HKCSD	1990-2016		
Unemployment rate	HKCSD	1990-2016		
Property price (private domestic)	Rating and valuation department	1990-2016		
Property price (private office)	Rating and valuation department	1990-2016		
Social indicator				
Gini coefficient	HKCSD	1990-2016		
Cultural indicator				
Satisfaction with the government	HKU Pop	1997-2016		
Confidence in HK's future	HKU Pop	1994-2016		
Ethnic identity - Hongkonger	HKU Pop	1997-2016		
Ethnic identity - Chinese	HKU Pop	1997-2016		
Happiness index	Lingnan	2005-2016		

To examine the long-term relationships between our proposed integration index and key indicators, we use VECM to correct the disequilibrium in the cointegration relationship. The error correction mechanisms model changes in the indicators (i.e., proposed integrated index and other social and economic factors) as a function of the level of the disequilibrium in the cointegrating relationship, as captured by the error correction term, and changes in the other independent variables to capture the short-term relations between variables. For each variable, we determine the optimal length of the underlying vector auto-regression using the traditional selection criteria methods and use the Likelihood ratio test to derive the best VECM model.

The long-term equilibrium relationships are presented in Table 3. The Vector Error Correction Model (VECM) technique helps to distinguish between a long-run and a short-run relationship between two variables. The parameter estimates reported in Table 3 represent the long-run equilibrium relationships in which the disequilibrium

error is stationary (Johansen and Juselius 1990). The coefficients indicate the average change in the variable in question (e.g., existing key index) associated with the change in the proposed economic index. In other words, the parameter estimates of VECM provide the mean rate of changes in long-run relationship after controlling for short-run influence and measurement errors.

According to Table 3, the index is positively related to all of the indicators at significance levels of 1%, except the happiness index, which is positively related but insignificant at the 10% level. In particular, the integration index is positively associated with GDP growth, suggesting that economic integration is an important contributor to the territory's development (Figure 3A). In addition, economic integration promotes economic efficiency in production, resulting in many labor-intense production tasks moving from Hong Kong to the Chinese mainland. In other words, the integration weakens the bargaining power of local labor by creating a regional labor pool (Alderson & Nielsen, 2002).

Table 3. Results of Long-run Equilibrium Relationships

Key variable	Coefficient of co-integration	t-statistics
GDP	5.46E-05***	5.81
Per capita GDP	4.71E-04***	9.04
Unemployment rate	3.42***	2.89
Property price (private domestic)	0.39***	3.09
Property price (private office)	0.43***	6.85
Gini coefficient	65737.86***	8.58
Satisfaction with the government	16.76***	4.81
Confidence in HK's future	35.18***	3.18
Ethnic identity – Hongkonger	54.33***	4.98
Happiness index	0.61	1.07

Note: level of significance: *** p < 0.01, ** p < 0.05, * p < 0.10

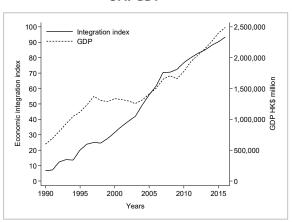
The positive relationship between integration and unemployment reflects this observed pattern. The unemployment in the manufacturing sector increases steadily as the economic integration increases. Regional integration also promotes the flow of capital resulting in a large share of China's foreign currency flooding into the Hong Kong financial market. The association between property prices and economic index reveals this positive relationship. As more money flows from the Chinese mainland into the Hong Kong market, more venture capitalists invest in different types of investments such as stock and property. The influx of capital leads to a rise in real estate prices (Figure 3B).

At the same time, our results show that increasing economic

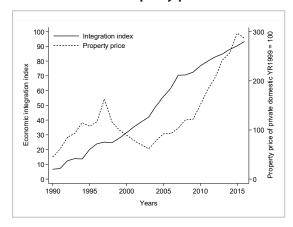
integration corresponds with greater income inequality and the widened gap between the rich and the poor. Economic integration fosters income inequality, which is measured by Gini coefficient (Figure 3C). Culturally, integration creates a politically stable environment in which trade prospers. People are mildly satisfied with the government and perceive the future to be brighter and positive. Interestingly, integration also promotes a sense of the uniqueness of people in the community. As travel and communication across borders become more frequent and regular, Hong Kong citizens become more aware of their own identity. Higher integration between Hong Kong and the Chinese mainland gives Hong Kong residents a stronger sense of their uniqueness.

Table 3. Results of Long-run Equilibrium Relationships

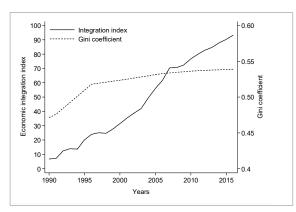
3A: GDP



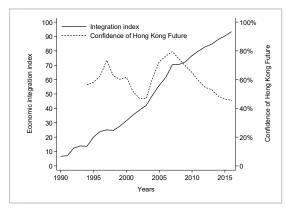
3B: Property price



3C: Gini coefficient



3D: Confidence of Hong Kong future



While the overall long-term positive relations between the integration index and other indicators may be positive, these indicators may exhibit variations across these time periods. For instance, both the "satisfaction with government" and "confidence in Hong Kong's future" reached the peak in 2007 and have since declined, perhaps due to external shocks such as the Financial Tsunami in 2008 (Figure 3D). We observe similar changes in the proposed economic integration index, which increased rapidly from 1997 to 2007. After 2007, the

slope of the curve is still positive, but not as steep as it was between 1997 to 2007. The non-parametric plots in Figure 3 shows the non-monotonic trends in the relationships between the selected variables during each of the observed periods. Indicators such as property price and confidence in Hong Kong's future exhibit significant variations over time, despite their overall positive relationships with the integration index (Figure 3).

CONCLUSIONS

The results suggest that the level of economic integration between Hong Kong and the Chinese mainland has grown steadily from in 1996 and to a very high level in 2016. The only exceptions to this trend occurred during the Asian Financial Crisis in 1997 and the Financial Tsunami in 2008. Overall, the three time series, i.e., drivers, channels, and consequences of economic integration, closely follow one another over the study period. Further co-integration analyzes indicate that the level of economic integration is largely associated the continuous economic development of Hong Kong, as reflected in its increasing GDP and GDP per capita over time. Although the unemployment rate increased to its highest level in the early 2000s, it has been on a downward trend in recent years.

Furthermore, the level of economic integration seems

to be associated with surging real estate prices for both residential and commercial properties, which have recovered from the previous shocks and reached historical highs in recent years. Continuous economic integration and growth also coincides with increasing economic disparity, a lack of confidence in the government and the future of Hong Kong, and a surge in ethnic identity among Hong Kong residents. Interestingly, it has little association with residents' level of happiness. These findings provide non-negligible evidence of the relations between economic integration and other aspects of social justice and public sentiment towards the government and society. These relations have been topics of heated public debate in recent years in this territory. Policy makers and researchers can certainly incorporate these findings into their deliberations when devising public policies.

References

Alderson, A. S., & Nielsen, F. (2002). Globalization and the great U-turn: Income inequality trends in 16 OECD countries. American journal of sociology, 107(5), 1244-1299.

Ash, R. F., & Kueh, Y. (1993). Economic integration within Greater China: trade and investment flows between China, Hong Kong and Taiwan. The China Quarterly, 136, 711-745.

Balassa, B. (1961). Towards a theory of economic integration. Kyklos, 14(1), 1-17.

Chen, B., & Woo, Y. P. (2010). Measuring economic integration in the Asia-Pacific region: A principal components approach. Asian Economic Papers, 9(2), 121-143.

Holzmann, F. (1976). International trade under communism: politics and economics. New York: Basic Books.

Johansen, S. & Juselius, K. (1990). Maximum Likelihood Estimation and Inference on Cointegration with Applications to Demand for Money. Oxford Bulletin of Economics and Statistics 52, 169-210.

Jovanovic, M. (2006). International economic integration: limits and prospects: Routledge.

Lütkepohl, H. (2005). New introduction to multiple time series analysis: Springer Science & Business Media.

Maksimova, M. (1976). Comments on Paper: Types of Economic Integration by B. Balassa. Economic Integration Worldwide, Regional, Sectoral Ed. F. Machlup) London: MacMillon, 6-32.

OECD. (2015). Handbook on economic globalization indicators: Methodology and user guide.

Pelkmans, J. (1984). *Market Integration in the European Community. Springer.*

Swann, D. (1996). European Economic Integration: The Common Market, European Union and Beyond. Cheltenham, U.K.: Brookfield, Vt.: Edward Elgar.

Zhang, K. H. (2005). Why does so much FDI from Hong Kong and Taiwan go to Mainland China? China Economic Review, 16(3), 293-307.



T.K.P. Leung and Bradley R. Barnes

The Hang Seng University of Hong Kong

In an article dated March 8, 2019, a Washington Post journalist Gerry Shih made a comment on the Chinese iconic technology company "Huawei" challenging the U.S. government in court for a ban on its purchase through its federal system. The headline read: "In China, many are impressed that, yes, you can sue the U.S. government", he subtly directed the readers to a very much fundamental difference between the U.S. and the Chinese governance system. That is, companies follow the legal system to defend their rights in the U.S. while President Xi's vision is the first and last word for everything in China. If companies operating in China fail to follow the words of authority, they are considered to lack loyalty and cannot be considered competent insiders. This will surely prevent them from generating ethical cronyism that can help leverage their performance. Also, relying on connected and loyal cronies to

obtain insider information is a major distinctive feature when conducting business in China.

Instead of using a universal and utilitarian cost and benefit approach to evaluate the Chinese market, Western managers, who are normally individualistic in nature, may refer to the virtue-based ethics theory originating from the cardinal principle of Confucianism, i.e. the use of humanism to approach the Chinese market. Humanism can be interpreted as a warm human feeling between people which strongly emphasizes reciprocity, particularism, and insider / outsider distinction. It also encompasses the role of connected intermediaries and the overlap of business - government relationships which often revolve around the significance of cronyism and loyalty.ⁱⁱ

¹ For an unabridged version of this article, please see Leung, T.K.P. and Barnes, B.R. (Forthcoming). Ethical Cronyism: An Insider Approach for Building Guanxi and Leveraging Business Performance in China, Asia Pacific Business Review.

² Dr. T.K.P. Leung is Associate Dean, School of Business and Associate Professor, Department of Marketing of the Hang Seng University of Hong Kong. He can be contacted at thomasleung@hsu.edu.hk.

³ Professor Bradley Barnes is Dean, School of Business, The Hang Seng University of Hong Kong. He can be contacted at bradleybarnes@hsu.edu.hk.

PFRFORMANCE

Different from the former Soviet Union to rapidly veto communism for a Western-style democracy and market economy, China declined to reform its political institution but reshaped its economy through substantially downsizing its State-owned enterprises (SOEs) in the 1980s. The process created a huge surplus of ex-government bureaucrats or insidersⁱⁱⁱ. To deepen this economic reform and considering 'humanism' i.e., guaranteed employment in the Chinese society at the time, the State Government sold many nonprofitable SOEs off to insiders so that they could hire the abundant labour resources released from this economic reform and this alleviated social anxiety^{iv}. Meanwhile, the implementation of a standardised taxation system allowed provincial governments to retain part of the tax revenue. This inspired government bureaucrats, associated SOEs and insider firms to form crony or governance networks to effectively channel resources, maximise tax revenues and enhance financial performance. Such reforms helped improve the overall quality of life for many Chinese people and created an economic miracle while implicitly legitimising an insider trading network.vi

The complex ties between politics and firms in China have

motivated businesses to take extreme care to manage two types of performance, i.e. procedural performance and business performance. Procedural performance involves lobbying the Chinese government in order to influence the adjustment of macro-economic variables associated with China's national plan. This may lead to securing favourable regulation, preferential tax treatments, exchanging restricted valuable information, procuring land resources, awarding contracts, assisting access to bank credit and obtaining licensing approval from relevant government departments. vii Managers must scrutinize such social and economic resources through connected bureaucrats because they have inside information on how to negotiate through the State macro-economic environment "iii. Business performance refers to firm related variables such as market-share growth, profit growth and return on equity.ix Reciprocal exchange between cronies nicely fits into the Chinese moral code of friendship, which emphasises benevolence, justice, commitment, giving face, obligation and empathy. *The meticulous manoeuvring of procedural performance among managers can often help leverage performance advantages when operating in China.

ETHICAL CRONYISM

Dating back to the 17th century, the term crony represents "friends of long-standing". xi In 1952, a New York Times journalist used the term cronyism to describe the Truman 1952 administration of appointing friends to government posts regardless of their qualifications. XIII While changing the meaning of cronyism at the time, its intrinsic values of loyalty and friendship have also been taken away.

From an economic viewpoint, many commentators suggested that cronyism is bad because it discourages the free market mechanism, creates a forced distribution of resources, leads to unfairness and favourable treatment that compresses entrepreneurial activities and lowers productivity. XIII From an organizational lens, it undermines firms' performance and damages business relationships. It can also lead to the misuse of contacts for opportunistic behaviour, as well as contributing to excessive CEO compensation.xiv All these comments steer to the advocate of a free market mechanism, whereby government intervention should be minimized to make a more transparent economic system.xv

The negative annotations of cronyism in the West cannot stop its flawless rally in China^{xvi}. The past Communist Party Chairman Deng Xiaoping expressed his vision to an Italian reporter Oriana Fallaci on August 21 and 23, 1980 that China has been cultivating its own style of democracy and legality to build a socialistic market economy. **This would be politically dominated by the government's vertical resource distribution to loyal insiders and through managers of Chinese firms exercising horizontal cronyism with their insider peers to lobby government for the financial benefits of their firms.xix

The Insider Scenario

There are three reasons why the Chinese government and firms have been relying on loyal insiders or cronies to distribute and generate resources. First, China's legal systems are not well developed and individuals therefore often rely more on their own personal relationships, which influence how business is undertaken and how societies operate at large. Second, the rapid economic development over the past forty years has created a moral vacuum, whereby individuals act opportunistically and endeavour

to assess costs and benefits only. Cronyism may be the result of both businesses and governmental officials seeking more reliable and legitimate ways for undertaking business and to simply bypass opportunistic individuals. Third, China is essentially a Confucius-based society and leaders often show favouritism when they allocate resources. Likewise, firms do businesses with competent peers that they know will help them to generate successful business performance.

Is Cronyism Ethical?

Ethical cronyism may be prejudiced from an outsider perspective. Nevertheless, if the completion of a business transaction is regulated by a reputable, competent and moral crony whereby the transaction is based on practical wisdoms of meritocracy, generosity and gratitude, all cronies within the network can benefit.** From a virtue-based ethics point of view, what's wrong to treat an old friend better than an outsider in a Confucius economy

when friendship plays a major interactional role? Connected cronies frequently cultivate close ties with bureaucrats to determine the impact of economic policies surrounding their business in China with a view of generating more efficient business transactions. This would advocate that cronyism is moral in China because it is embedded with the implicit value of friendship.

LOYALTY

Surely, U.S. businesspeople will be loyal to their country, but they may not extend their loyalty to the US President. Only in this way can they make decisions purely on a commercial sense as the head of the US-China Business Council, Craig Allen, told a Financial Times' reporter recently^{xxi}. Nevertheless, a Business Insider xxiii reporter's disclosure of Alibaba's Jack Ma's Communist Party membership flared an astonishing, loud and clear message to the Western business society. That is, loyal to the Chinese Government in addition to keeping a balance between competence, honesty, legality and morality to stakeholders, all together equates to an insider's favourable ingredient for a businesses success. Complete isolation from the Government's political goals may attract both attention and rejection in a collectivistic Chinese society. Insider organizations therefore may show their loyalty to the Government in a bid to render preferential support.

Loyalty is considered an essential virtue, a moral code and a cultural identity in China. XX, Only those companies that can master the skill of maintaining the delicate vertical and horizontal loyalty to the government and insider peers respectively will succeed in a legally weak and collectivistic environment. XX, Insider organizations show their vertical loyalty upward to the State and its leaders to render preferential support. Likewise, leaders have a paternalistic virtue of benevolence towards their subordinates. XXV Inferiors are morally obliged to be obedient and give faithful support to their leaders by showing a willingness to sacrifice their own self-interest. XXVI

While some multinational (MNE) managers and subordinates may affix a very low priority on vertical loyalty in their home country, this is exactly what the MNE manager needs to demonstrate to Chinese state officials, to the same

extent as insider Chinese organizations to obtain ethical cronyism. A Chinese historian drew on history in order to explain why foreigners enjoyed insider status and were able to develop careers in the Ancient Tang Dynasty. Two factors dominated, i.e., foreigners needed to prove their vertical loyalty and usefulness to the state, and similarly, horizontal loyalty also played a role. Whilst horizontal loyalty tends to be explicit and codified in western contexts, it is implicit and entrenched in Chinese Confucius culture.

For many years, successful MNEs have discovered that obtaining support from key Chinese officials provided a definitive competitive advantage for enabling important projects to proceed.***

They practiced vertical loyalty by agreeing and complying to the Chinese Government's requests. Through meeting their demands and expectations. Such managers attempted to influence or shape the Chinese

Government's goals, either by themselves or together with cronies. Horizontal loyalty represents an emotional tie between individuals which is built on mutual trust, affection, respect, morality, intimacy and harmony.^{xxix}

Chinese people often support one another within a group. They generally share thoughts, feelings and information. They also expect timeless reciprocity and exhibit a very negative attitude toward those who deviate from their group. Horizontal loyalty enhances friendship^{xxx} and relationships between cronies may turn bad if one does not handle horizontal loyalty properly, such as releasing sensitive information to outsiders or breaking promises^{xxxi} Alternatively, horizontal loyalty may motivate a crony to secure business opportunities and lobby the Chinese government in an attempt to gain favourable policies for another crony.

SOME CONCLUDING REMARKS

A complex relational, political and economic nexus has initiated the Chinese Government to adopt a pragmatic approach to formulate economic plans and work with insider firms and business cronies. Building and negotiating through an insider relationship is crucial which involves:

1) how to deal with Chinese government officials (vertical relationship), and 2) how to deal with Chinese counterparts (horizontal relationship) to obtain ethical cronyism that is not available to outside organizations.

Concerning vertical relationships, it is important for MNEs to demonstrate their loyalty to the Chinese government by agreeing, complying and shaping the Government's requests on meeting economic goals and demands together with their political cronies. Officials may help obtain land, reduce excessive regulations and enforce contracts. Evidence shows that an MNE manager used his business crony to lobby Chinese bureaucrats which helped in the listing of a multibillion-dollar project as part of China's ninth Five-Year Plan. **xxxiii**

Concerning horizontal relationships, it is important for an MNE manager to establish and rely on a circle of old friends. The operations of this insider circle have some pragmatic principles: 1) crony connections are based on the practical wisdoms of meritocracy, generosity and gratitude; 2) horizontal loyalty holds and is nurtured through mutual trust, respect, affection, morality, intimacy and harmony; 3) reciprocity is crucial; 4) cronies in the old friend circle support one another in terms of genuinely sharing thoughts, feelings and information; and finally 5) all members, directly or indirectly should be well connected with bureaucrats within their industries.

Proper management of the above conditions can make the cronyism network operate successfully in the MNE manager's favour. The MNE manager must also analyse the information within the context of his or her company environment to derive benefits. Moreover, he or she may call on cronies to help lobby government officials to influence regulation. Relationships between two cronies could turn bad if either one does not handle horizontal loyalty properly, for example releasing sensitive information to outsiders.

MNE managers must understand that bribery is not cronyism. The former relies on using a monetary reward unethically to motivate bureaucrats to intercept an economy and change its course, whereas the latter is a regulatory lobbying process that an MNE can use in an attempt to adjust the course of an emerging economy without any monetary involvement. Also, cronyism is perceived as moral in a Confucius based Chinese economy. Government bureaucrats and Chinese firms distribute resources based on the principle of relationship closeness in accordance with a set of cultural norms. Coupling this relational closeness principle together with the unique political driven economic environment, ethical cronyism is a relatively unexplored resource that MNEs can cultivate to improve their business performance in China.

Nevertheless, materializing ethical cronyism is time

consuming and may create some anxiety for MNE managers. In saying that, most MNE managers typically have only a two-year executive contract in China. xxxiv They may not have enough time to connect with cronies and work with them, not to mention how to influence bureaucrats in this short time. MNEs can resolve the anxiety of their managers in either one of two methods, i.e. extending the tenure period for their managers in China or installing a substantial company policy in China. The former lacks continuity when managers return to their host countries, whereas the latter is more endurable if the MNE can form a completely separate business unit in China to better respond to the dynamic situation and capture market opportunities. For instance, Harley Davidson is now working with Geely Automobile to produce small motorcycles exclusively for the Chinese market. XXXXV

Endnotes:

- Shih, G. 2019. "In China, many are impressed that, yes, you can sue the U.S. government." *Washington Post*, March 8. Accessed 27 Jun, 2019. https://www.washingtonpost.com/world/2019/03/08/china-many-are-impressed-that-yes-you-can-sue-us-government/?noredirect=on&utm_term=.2cc35d1e748f.
- For a full discussion of these five areas of virtue-based ethics, please refer to Yum, J.O. (1988). The impact of Confucianism on interpersonal relationships and communication patterns in east Asia. *Communication Monographs*, 55(4), 374-388.
- Nee, V. 1989. "A Theory of Market Transition: From Redistribution to Markets in State Socialism." *American Sociological Review* 54 (5): 663-681.
- Gao, H., J.D. Knight, and D. Ballantyne. 2012. "Guanxi as a gateway in Chinese-Western business relationships." *Journal of Business & Industrial Marketing* 27 (6): 456 467.
- Please see Li, D.D. 1998. "Changing Incentives of the Chinese Bureaucracy." *The American Economic Review* 88: 393–397; Oi, J.C. 1992. "Fiscal Reform and the Economic Foundations of Local Corporatism in China." *World Politics* 45: 99–126; Peng, M. and Y. Luo. 2000. "Managerial Ties and Firm Performance in a Transition Economy: The Nature of a Micro–Macro Link." *Academy of Management Journal* 43: 486–501; Kim, H.K. 2004. "The Politics of Fiscal Standardization in China: Fiscal Contract Versus Tax *Assignment.*" *Asian Perspective* 28: 171–203; Jin , H., Y. Qian, and B.R. Weingast. 2005. "Regional decentralization and fiscal incentives: Federalism, Chinese style." *Journal of Public Economics*, 89: 1719–1742; Chen, S., Z. Sun, S. Tang, and D. Wu. 2011. "Government intervention and investment efficiency: Evidence from China." *Journal of Corporate Finance* 17: 259–271 for a review.
- Lin, J.Y., F. Cai, and Z. Li. 2003. The China Miracle: *Development Strategy and Economic Reform* (revised version). Hong Kong: The Chinese university Press.
- Please see Agrawal, A., and C.K. Kroeber. 2001. "Do some outside directors play a political role?" *Journal of Law and Economics* 44: 179–198; Peng, M. and Y. Luo. 2000. "Managerial Ties and Firm Performance in a Transition Economy: The Nature of a Micro–Macro Link." *Academy of Management Journal* 43: 486–501; Wu, C., W. Wu, C. Zhou, and J. Wu. 2012. "Political connections, tax benefits and firm performance: Evidence from China." *Journal of Accounting and Public Policy* 31 (3): 277-300 for a review.

- viii Yu, Q. 1997. "Economic Fluctuation, Macro Control, and Monetary Policy in the Transitional Chinese Economy." Journal of Comparative Economics 25: 180–195.
- Peng, M (2004). "Outside Directors and Firm Performance during Institutional Transitions." Strategic Management Journal 25: 453-471.
- * Please see Grunebaum, J.O. 1993. "Friendship, Morality, and Special Obligation." American Philosophical Quarterly 30 (1): 51-61; Peng, M. and Y. Luo. 2000. "Managerial Ties and Firm Performance in a Transition Economy: The Nature of a Micro-Macro Link." Academy of Management Journal 43: 486-501; Kung, J.K. and C. Ma. 2018. "Friends with Benefits: How Political Connections Help to Sustain Private Enterprise Growth in China." Economica 85 (337): 41-74 for a review.
- Anonymous author. 1990. Dictionary of Word Origins. London: Bloomsbury.
- Khatri, N., and E.W.K. Tsang. 2003. "Antecedents and Consequences of Cronyism in Organizations." Journal of Business Ethics 43: 289-303.
- Enderwick, P. 2005. "What's Bad About Crony Capitalism?" Asian Business & Management 4: 117–132; Enderwick, P. 2005. "What's Bad About Crony Capitalism?" Asian Business & Management 4: 117–132; Henderson, D.R. 2012. "The Economics and History of Cronyism." Unpublished paper, Mercatus Center, George Mason University; Holcombe, R.G. 2013. "Crony Capitalism: By-Product of Big Government." The Independent Review 17 (4): 541-559.
- xiv Brick, I.E., O. Palmon, and J.K. Wald. 2006. "CEO compensation, director compensation, and firm performance: Evidence of cronyism?" Journal of Corporate Finance 12: 403–423.
- Please see Srivastava, R.K., T.A. Shervani, and L. Fahey. 1998. "Market-Based Assets and Shareholder Value: A Framework for Analysis." Journal of Marketing 62 (1): 2-18; Pagano, M.S. 2002. "Crises, Cronyism and Credit." The Financial Review 37: 227-256 for a review.
- ^{xvi} Tan, J., J. Yang, and R. Veliyath. 2009. "Particularistic and system trust among small and medium enterprises: A comparative study in China's transition economy." Journal of Business Venturing 24: 544–557.
- Anonymous author. 2015. An Interview with *Deng Xiaoping*. Hidden Harmonies China Blog, assessed through https:// blog.hiddenharmonies.org/2015/07/29/an-interview-with-deng-xiaoping/ on November 13, 2019.
- xviii Please see Montinola, G., Y. Qian, and B.R. Weingast. 1995. "Federalism, Chinese Style: The Political Basis for Economic Success in China." World Politics 48: 50-81; Wu, K. 2010. "Let Chinese Thinking Be Chinese, not Western": Sine Qua Non to Globalization." Dao: A Journal of Comparative Philosophy 9 (2): 193–209; Hutchings, K. and D. Weir. 2006. "Understanding networking in China and the Arab World: Lessons for international managers." Journal of European Industrial Training 30 (4): 272-290 and Guthrie, D. 2012. China and Globalization: The Social, Economic and Political Transformation of Chinese Society (3rd edition). New York: Routledge for a discussion.
- xix Please see Chen, C.C. 1995. "New Trends in Rewards Allocation Preferences: A Sino-U.S. Comparison." Academy of Management Journal 38 (2): 408-428; Leung, T.K.P., V.C.S. Heung, and Y.H. Wong. 2008. "One possible consequence of guanxi for an insider: how to obtain and maintain it?" European Journal of Marketing 42: 23-34; Li, H., L. Meng, Q. Wang, and L. Zhou. 2008. "Political connections, financing and firm performance: Evidence from Chinese private firms." Journal of Development Economics 87: 283 – 299; Aligica, P.D., and V. Tarko. 2014. "Crony Capitalism: Rent Seeking, Institutions and Ideology." KYKLOS 67 (2): 156–176 for a discussion.
- Allen, F., J. Qian, and M. Qian. 2005. "Law, finance, and economic growth in China." Journal of Financial Economics 77: 57-116 and Holcombe, R.G. 2013. "Crony Capitalism: By-Product of Big Government." The Independent Review 17 (4): 541-559 for a review.
- Politi, J. 2019. "US companies unlikely to heed Trump's call to leave China." Finance Times, Aug 30. Accessed Nov 11, 2019.

- https://www.ft.com/content/d9490bae-ca81-11e9-a1f4-3669401ba76f.
- Perper, R. 2018. "Jack Ma, creator of e-commerce giant Alibaba and China's richest man, has been outed as a member of the Communist Party." Business Insider, Nov 27. Assessed Nov 11, 2019. https://www.businessinsider.com/alibaba-jack-ma-outed-as-a-member-of-china-communist-party-2018-11
- Please see Fairbank, J.K. and E.O. Reischauer. 1978. China: Tradition and Transformation. Boston: Houghton Mifflin; Townsend, J. 1992. "Chinese Nationalism." *The Australian Journal of Chinese Affairs* 27: 97-130 and Hwang, K.K. 1999. "Filial piety and loyalty: Two types of social identification in Confucianism." *Asian Journal of Social Psychology* 2: 163–183 for a discussion.
- Dieleman, M. and W. Sachs. 2006. "Oscillating between a relationship-based and a market-based model: The Salim Group." *Asia Pacific Journal of Management* 23: 521 536.
- Chen, C.C., Y. Chen, and K. Xin. 2004. "Guanxi Practices and Trust in Management: A Procedural Justice Perspective." Organization Science 15: 200–209.
- Please see Farh, J.L. and B.S. Cheng. 2000. "A cultural analysis of paternalistic leadership in Chinese organizations." In *Management and organizations in the Chinese context*, edited by Li, J.T., A.S. Tsui, and E. Weldon, 84-127. London: MacMillan and Tsui, A.S., and J.L. Farth. 1997. "Where guanxi matters: Relational demography and guanxi in the Chinese context." *Work and Occupations* 24: 56–79 for a discussion.
- Ma, C. 2017. "Crossing the Boundaries: from "outsiders" to "insiders" in Early-Tang Dynasty China." Masters thesis, University of British Columbia.
- Bjorkman, I. and G. Osland. 1998. "Multinational Corporations in China: Responding to Government Pressures." Long Range Planning 31 (3): 436-445.
- Vixix Please see Jiang, D., and B. Cheng. 2008. "Affect- and role-based loyalty to supervisors in Chinese organizations." Asian Journal of Social Psychology 11: 214–221; Van Vugt, M. and C.M. Hart. 2004. "Social Identity as Social Glue: The Origins of Group Loyalty." Journal of Personality and Social Psychology 86: 585–598; Sluss, D.M., and B.E. Ashforth. 2007. "Relational identity and identification: Defining ourselves through work relationships." Academy of Management Review 32: 9–32 for review.
- Gao, W., Y. Liu, and L. Qian. 2016. "The personal touch of business relationship: A study of the determinants and impact of business friendship." *Asia Pacific Journal of Management* 33 (2): 469–498.
- Grayson, K. 2007. "Friendship versus Business in Marketing Relationships." Journal of Marketing 71 (4): 121-139.
- Bjorkman, I. and G. Osland. 1998. "Multinational Corporations in China: Responding to Government Pressures." Long Range Planning 31 (3): 436-445.
- Pearce, J.L., I. Branyiczki, and G.A. Bigley. 2000. "Insufficient Bureaucracy: Trust and Commitment in Particularistic Organizations." *Organization Science* 11 (2): 148-162.
- ^{xxxiv} Zimmerman, A., X. Liu, and T. Buck. 2009. "Employee tenure and the nationality of joint ventures in China." *The International Journal of Human Resource Management* 20 (11): 2271-2291.
- Holcombe, R.G. 2013. "Crony Capitalism: By-Product of Big Government." The Independent Review 17 (4): 541-559.



Esther, Ling-yee Li and Wenting Zhu

Lingnan University, Hong Kong

Affected by a faith and an intuitive appeal that "service equals profit", a number of companies jumped on the service bandwagon. In the last three decades, they tried to differentiate themselves from competitors and develop competitive advantages by investing in service strategies and enhancing service quality. Since the mid-1990s, companies have demanded solid evidence of the bottomline effectiveness of service initiatives. In response to such demand, researchers from Marketing Science Institute (Rust, Moorman et al. 2002), Harvard Business School (Heskett, Jones et al. 1994), and Michigan State University (Fornell, Mithas et al. 2006) have built a convincing case that service strategies when implemented in an appropriate way can lead to profit (Wilson, Zeithaml et al. 2012). In addition, considerable empirical research evidences show linkages from customer satisfaction (CS) to customer loyalty (CL) and to profit (Anderson and Mittal 2000, Gupta and Zeithaml 2006). Nonetheless, it has been repeatedly reported by the American Customer Satisfaction Index (ACSI) that the scores for service industries are on average lower than

the scores for durable and nondurable products (ASCI 2016). This implies that the strength of the satisfaction-loyalty link is not stable and tends to vary by industries. Additional research effort has been called for to examine any potential moderating factors influencing the strength of the satisfaction-loyalty link (Homburg and Giering 2001, Kathleen Seiders, Glenn B. Voss et al. 2005, Evanschitzky and Wunderlich 2006, Goncalves and Sampaio 2012). Besides, past studies have acknowledged that consumer characteristics as a kind of moderating factors may account for an improved explanation of the variance unaccounted for regarding the direct path between service satisfaction and loyalty in the food catering industry (Ryu and Han 2010, Lee, Back et al. 2017).

In this study, we conduct an empirical test on a Chinese restaurant providing food catering service on campus at a local university in Hong Kong to revisit and reinvestigate the direct relationship between CS and CL. In particular, we take a more in-depth look at this relationship by considering

the extent to which customer characteristics consisting of age, education and lengthen of relationship might have a moderating effect on the CS-CL link. The resultant findings of this study can enable campus restaurant operators to

make informed segmentation decisions which can help them to satisfy customers in ways better than competitors and achieve stronger customer loyalty in the end.

ABOUT THE RESEARCH

The positive relationship between CS and CL has been established as a main effect in services marketing. Based on Anderson and Sullivan's four-Stage Loyalty Model (Anderson and Sullivan 1993), many researchers have investigated customer loyalty in terms of cognitive, affective, conative and actual behavioral loyalty (Dick and Basu 1994). In a restaurant food catering service setting, customer loyalty has been examined in previous studies as conative loyalty that is behavioral intentions including an intent to spread positive word of mouth to others, a willingness to recommend the restaurant, and an intention to revisit the restaurant (Liu and Jang 2009). Based on Richard Oliver's classic definition (Oliver 2014), "customer satisfaction refers the customer's fulfilment response. It is a judgment that a product or service feature, or a product or service itself, provides a pleasurable level of consumptionrelated fulfilment". Customer satisfaction has typically been considered a salient determinant of consumer loyalty in general (Cardozo 1965) and in food catering service in particular (Ryu and Han 2010, Ryu and Han 2011, Ryu, Lee et al. 2012, Lee, Back et al. 2017, Kim, Kim et al. 2018).

Consumer characteristics have been acknowledged as potential moderating factors that may account for an improved explanation of the variance unaccounted for regarding the direct path between service satisfaction and loyalty. For instance, personality characteristics have been examined as moderating influences for the pathways between overall boredom and variety seeking intentions (Ha and Jang 2013). Moderating effects of such cultural characteristics as the origin of the country was found on the pathway between satisfaction and loyalty behaviors (Olsen, Tudoran et al. 2013, Lai 2015). Gender has also been investigated as a moderating effect which affects consumers' dining behaviors in restaurant service (Namkung and Jang 2009, Kwun 2011). In this study, the moderating effect of age, education and lengthen of relationship will be investigated (see Figure 1).

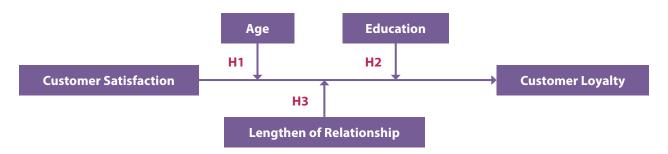


Figure 1: The conceptual model of the present study.

Age: Information processing theory can provide an explanation pertaining to the potential moderating role of age on the CS-CL link (Moscovitch 1982, Homburg and Giering 2001). It has been argued that compared to older consumers, it is more likely that younger consumers engage

more in information gathering and processing which make them have more decision criteria for using the service while old consumers rely more on their past experiences with the service provider (Goncalves and Sampaio 2012). Thus, it can be expected that older consumers tend to use more their perceived satisfaction with a service or product provider in determining loyalty in terms of behavioral intentions to rebuy, to refer, and to spread word-of-mouth, whereas younger consumers tend to look for alternative information about a particular service provider in addition to their satisfaction level. Hence, we formulate the following hypotheses:

• H1: The effect of CS on CL is expected to be stronger for older customers (>23 years old) than younger customers (18-23 years old)

Education: It has been argued that customers with higher levels of education tend to seek and process new information that will affect their decision-making. On the other hand, less well-educated people depend on fewer information cues but more on the satisfaction level from past experiences (Evanschitzky and Wunderlich 2006, Henrique and de Matos 2015). Therefore, it can be expected that higher educated consumers may be affected by alternative information while less well-educated consumers consider satisfaction as an essential decision criterion which has an impact on their purchase decision. Accordingly, we formulate the following hypothesis in this study:

• H2: The effect of CS on CL is expected to be stronger for the group with lower education level (High diploma and Undergraduates) than the group with higher education level (Postgraduates).

Lengthen of relationship: In this study, we investigate the moderating roles of lengthen of relationship with the Chinese Restaurant under study, as a reflection of consumption experience, in terms of how this factor strengthens or weakens the impact of CS on CL. One of the reasons for this investigation is that consumption experience is considered as a reliable way to predict future customer behavior (Sönmez and Graefe 1998, Verhoef 2003, Kathleen Seiders, Glenn B. Voss et al. 2005, Ha and Jang 2010, Cheng, Chiu et al. 2011). The familiarity gaining from repeated consumption due to long-term relationship provides them with a clear reference framework for assessing the service quality or value (Lai 2015). It is believed that the higher the interaction frequency between the service customer and provider resulting from the higher visit frequency, the higher the service experience satisfaction will be. For instance, Goncalves and Sampaio (2012) argued that the length of the customer relationship affected customer retention positively. In addition, it is also believed that it is less likely for customers with positive experiences from the past experiences to leave a specific service provider (Anderson and Sullivan 1993). Therefore, in the present study, we formulated the following hypothesis.

• H3: The effect of CS on CL is expected to be stronger for the group with a longer relationship (more than two years) than the group with a shorter relationship (one or two years).

A survey has been designed with reference to previous studies. The measurement scales of CS and CL were adapted from previously published work and have proven satisfactory psychometric quality (Ryu, Han et al. 2008). The measurement scale used to measure "Customer Satisfaction" asks respondents to rate extent to which s/he is satisfied or dissatisfied with the Chinese Restaurant under study" (Oliver 1999). The scale used to assess "Customer Loyalty", on the other hand, asks respondents to rate level of likelihood that s/he will carry out the following three behaviors towards the Chinese Restaurant under study:

- When I try to look for dining places, the first thing comes to my mind is this Chinese Restaurant.
- I will go to this Chinese Restaurant quite often.
- I will recommend this Chinese Restaurant to others.

Each construct has been estimated based on a sevenpoint Likert scale. Street-intercept convenience sampling was conducted for the data collection on campus. The target population was defined as students and staff of a Hong Kong local university who have access to the food catering services available on campus including the Chinese Restaurant under study. In total, a sample of 110 respondents has been collected and deemed suitable for data analysis. The demographic characteristics of the survey sample have been shown in Table 1.

Table 1: Summary of demographic characteristics of all respondents

Demographics		Frequency	Percent (%)
Age	18-23 years old	47	42.7
	> 23 years old	63	57.3
Program	High Diploma	2	1.8
	Underground	31	28.2
	Postgraduate/MPhil	48	43.6
	Staff	29	26.4
Years in the University	Up to 2 year	69	62.7
	>2 years	41	37.3

KEY FINDINGS

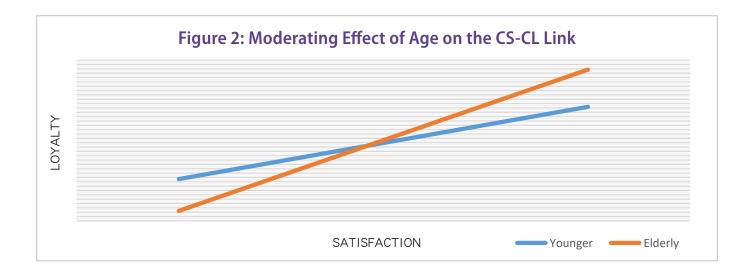
In order to test the moderating effects of age, education, and lengthen of relationship on the path between CS and CL in this paper, Chow test is applied to test the group difference in IBM SPSS Statistics 24, and the results have been shown in Table 2.

We can see that the impact of CS on CL has a significant

difference between younger consumers (18-23 years old) and more mature consumers (>23 years old) (F=5.034, p-value=.008). It can be found that this impact is exhibited stronger with older customer (t=4.5577, effect=.9877) than younger customers (t=3.4532, effect=.5052) when certain satisfaction level is achieved. Therefore, H1 is partially supported, as graphically shown in Figure 2.

Table 2: Chow-test results on the link of CS-CL

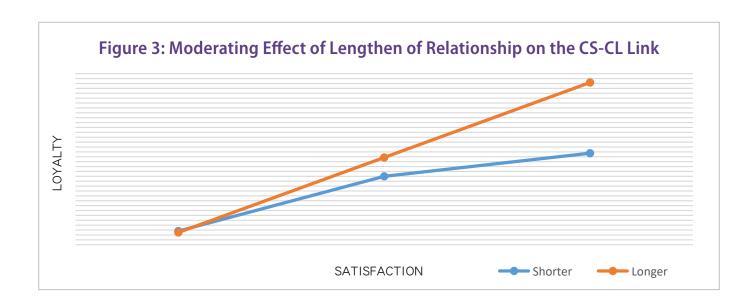
Source	Sum of Squares	df	Mean Square	F	Sig.
Age					
Contrast	10.111	2	5.055	5.034	.008
Error	106.454	106	1.004		
Education					
Contrast	1.494	2	.747	.747	.477
Error	80.930	81	.999		
Lengthen of relationship					
Contrast	6.920	2	3.460	3.345	.039
Error	109.644	106	1.034		



However, based on the empirical test, there is no significant difference in the satisfaction-loyalty link between the different education groups (F=.747, p-value=.477). In this case, H2 is not supported. One of the reasons can be that in our sample, the educational difference between two groups (High diploma Undergraduates VS. postgraduates) under study cannot adequately represent a typical difference between lower and higher education level.

Furthermore, concerning the moderating effect of the

lengthen of relationship, we find that there is a moderating effect on the satisfaction-loyalty link (F=.3.345, p-value=.039). In particular, for those with a longer relationship at university (t=4.5933, effect=.9320), the effect is stronger than those with a shorter relationship are (t=3.2970, effect=.4843). As illustrated in Figure 3, we can see that the gap in loyalty is getting increasingly more prominent with the improved customer satisfaction especially for those long-term customers. H3 is hence supported.



This study confirmed the main effect of customer satisfaction on customer loyalty in a Chinese restaurant food catering service context and hence reinforced the well-established CS-CL link as reported in many previous studies. With respect to moderating effect, we found that the impact of CS on CL was strengthened with those customers who

have a long relationship (i.e. patronizing for more than two years with the restaurant under study). Yet, the present pattern of findings reveals that the relationship between CS and CL is much more complicated than expected, as the effect of CS on CL is strengthened with older customers only when satisfaction level reached a certain level.

THREE TAKE HOME LESSONS FOR FOOD CATERING MARKETERS

In order to test the moderating effects of age, education, and lengthen of relationship on the path between CS and CL in this paper, Chow test is applied to test the group difference in IBM SPSS Statistics 24, and the results have been shown in Table 2.

We can see that the impact of CS on CL has a significant

difference between younger consumers (18-23 years old) and more mature consumers (>23 years old) (F=5.034, p-value=.008). It can be found that this impact is exhibited stronger with older customer (t=4.5577, effect=.9877) than younger customers (t=3.4532, effect=.5052) when certain satisfaction level is achieved. Therefore, H1 is partially supported, as graphically shown in Figure 2.

LESSON #1: IDENTIFY AND REWARD LOYAL CUSTOMERS FOR FURTHER PROMOTION THROUGH SPREADING WORD-OF-MOUTH

Given the main effect that customer satisfaction leads to a significant increase in customer loyalty in forms of making recommendation to peers and repurchasing as found in the study, it is vital for the university to identify those

strongly satisfied and loyal customers, and use incentives to encourage the latter to spread positive word-of-month via sharing on posters, brochures, online reviews and testimonial advertising for the involved cater.

LESSON #2: TARGET AT "OLDER CUSTOMERS" AND WIN THEIR LOYALTY THROUGH OFFERING HIGH-LEVEL SERVICE QUALITY

Given the moderating effect of age over the CS-CL link, the university and its restaurant operators should distinguish between customers with different ages. When targeting and appealing to the age group whereby the satisfaction level is at a comparatively lower level, the restaurant may consider use price discounts or buy-in-bulk promotions to attract younger customers. Alternatively, the cater may consider providing economical take-away services to cater for the

younger customers' need for efficient food ordering and delivery services. On the other hand, the university's catering managers should be reminded of the critical importance of appealing to the older customers by consistent and continuous pursuits in quality improvements and designs. Such investments on quality could be very rewarding once the threshold of a relatively high level of customer satisfaction be reached.

LESSON #3: RETAIN CUSTOMERS AND BUILT LONG-TERM RELATIONSHIPS THROUGH DIFFERENT CRM PROGRAMMES

The third take-home lesson for the university and its catering manager rests firmly on the significant moderating effect of relationship length over the CS-CL link. Therefore, it is essential to retain current customers and strive for a long-term relationship with them. When taking "repurchase" as a kind of conscious strategic decision on the part of the long-relationship customers, the catering managers could adopt different customer relationship management (CRM) programs (Verhoef 2003) including tier-value loyalty schemes, frequent-user coupons, cumulative purchase discounts or rewards etc. to encourage more frequent patronage, more sizable spending, and hence more prolonged relationships with more customer accounts.

Alternatively, when taking "repurchase" as a kind of unconscious decision by the long-relationship customers, the catering managers could consider means of building up the habit strength or the relationship inertia (Cheng, Chiu et al. 2011) so as to maintain the relationship with its current customers. In sum, customer characteristics represent useful variables to profile customers in terms of their perceived satisfaction and intended loyalty behavior. In particular, since these consumer characteristics data are accessible from the database, they can facilitate service marketers and managers to make better segmentation decisions, to better promote and serve the most valued customers.

THE PROBLEM

In spite of considerable empirical research evidences substantiating the linkage between customer satisfaction (CS) and customer loyalty (CL), it has been repeatedly reported by the American Customer Satisfaction Index that the scores for service industries are on average lower than the scores for durable products (ASCI 2016). This implies that the strength of the satisfaction-loyalty link is not stable and tends to vary by industries. Additional research effort has been called for to how consumer characteristics as a kind of moderating factors may account for an improved explanation of the variance unaccounted for regarding the direct path between service satisfaction and loyalty in the food catering industry.

THE KEY FINDINGS

The present results show that the relationship is moderated by age and lengthen of relationship in this case. In particular, a stronger impact is identified for older customers and those with a longer relationship with the university.

THE SOLUTION

Three take-home lessons helping Food Catering Marketers to strengthen the CS-CL link have been provided.

References

Anderson, E. W. and V. Mittal (2000). "Strengthening the satisfaction-profit chain." Journal of Service research 3(2): 107-120.

Anderson, E. W. and M. W. Sullivan (1993). "The Antecedents and Consequences of Customer Satisfaction for Firms." *Marketing Science* 12(2): 125-143.

ASCI. (2016). "American Customer Satisfaction Index." from https://www.theacsi.org/.

Evanschitzky, H. and M. Wunderlich (2006). "An Examination of Moderator Effects in the Four-Stage Loyalty Model." *Journal of Service Research* 8(4): 330-345.

Fornell, C., S. Mithas, F. V. Morgeson III and M. S. Krishnan (2006). "Customer satisfaction and stock prices: High returns, low risk." *Journal of marketing* 70(1): 3-14.

Goncalves, H. M. and P. Sampaio (2012). "The customer satisfaction-customer loyalty relationship Reassessing customer and relational characteristics moderating effects." *Management Decision* 50(9): 1509-1526.

Ha, J. and S. Jang (2013). "Variety seeking in restaurant choice and its drivers." *International Journal of Hospitality Management* 32: 155-168.

Henrique, J. L. and C. A. de Matos (2015). "The influence of personal values and demographic variables on customer loyalty in the banking industry." *International Journal of Bank Marketing* 33(4): 571-587.

Heskett, J. L., T. O. Jones, G. W. Loveman, W. E. Sasser and L. A. Schlesinger (1994). "Putting the service-profit chain to work." *Harvard business review* 72(2): 164-174.

Homburg, C. and A. Giering (2001). "Personal characteristics as moderators of the relationship between customer satisfaction and loyalty - An empirical analysis." *Psychology & Marketing* 18(1): 43-66.

Lee, A., K.-J. Back and J. Park (2017). "Effects of customer personal characteristics on the satisfaction-loyalty link: a multi-method approach." *Service Business* 11(2): 279-297.

Oliver, R. L. (2014). Satisfaction: A Behavioral Perspective on the Consumer: A Behavioral Perspective on the Consumer, Routledge.

Olsen, S. O., A. A. Tudoran, K. Brunso and W. Verbeke (2013). "Extending the prevalent consumer loyalty modelling: the role of habit strength." *European Journal of Marketing* 47(1-2): 303-323.

Rust, R. T., C. Moorman and P. R. Dickson (2002). "Getting return on quality: revenue expansion, cost reduction, or both?" *Journal of marketing* 66(4): 7-24.

Ryu, K. and H. Han (2010). "Influence of the quality of food, service, and physical environment on customer satisfaction and behavioral intention in quick-casual restaurants: moderating role of perceived price." *Journal of Hospitality & Tourism Research* 34(3): 310-329.

Sönmez, S. F. and A. R. Graefe (1998). "Determining future travel behavior from past travel experience and perceptions of risk and safety." *Journal of travel research* 37(2): 171-177.



Mia Hsiao-Wen Ho

National Sun Yat-sen University, Taiwan

INTRODUCTION

Information and communication technologies (ICT) have significantly facilitated the speed of internationalization (Luo, Zhao & Du, 2005) and influenced the propensity for foreign expansion (Kotha, Rindova & Rothaermel, 2001) through better and easy acquisition of information about foreign partners/ markets (Mathews & Healy, 2007) or through reducing costs associated with spatial distance in customer service, virtual teamwork, and online transaction processing. As such, a growing number of studies have examined how the Internet and other computer-based information system technologies affect international strategies of firms, ranging from internationalization motivations, foreign market selection to entry modes (Brouthers, Geisser & Rothlauf, 2016; Loane, McNaughton & Bell, 2004).

Most of these prior studies, building on the existing theories, tend to focus on investigating how established companies adopt ICT to reconfigure and restructure their business strategies in order to compete successfully in a global marketplace (e.g., Ekeledo & Sivakumar, 2004; Petersen, Lawrence & Liesch, 2002). Little attention has been paid to explore the international strategies of e-commerce corporations (ECCs) – organizations that from inception largely use ICT to engage in electronic commerce and derive a significant competitive advantage from the application of network resources resident in virtual networks of commercial collaborative alliances (Singh & Kundu, 2002). Most these firms are born global and relatively young and small in scales in their home markets but often take early actions in internationalization. Regardless of their intentions, they are born to compete in global markets, seeking to acquire superior competitive advantages and international business performance through the use of resources and the sale of outputs in multiple countries (Oviatt & McDougall, 1995).

Compared with the experienced, consolidated multinational corporations, ECCs, enabled by ICT capabilities, are

generally subject to fewer physical barriers in transcending national borders and are less susceptible to entry barriers associated with expensive physical presence and startup facilities (Luo et al., 2005). They hold rather open, flexible, and synchronized system permitting multidirectional information and business exchanges through the worldwide internet cloud, allowing customers and business partners in different locations to participate in the decisionmaking process. Such network-based operations and collaborative systems facilitate ECCs' responsiveness to foreign market needs, lessening the dependence on local resources and thus speeding up their internationalization processes. Although ECCs may be less physically and culturally-constrained than traditional businesses (Luo et al., 2005), it is interesting to note that they face greater institutional challenges and infrastructure pitfalls in operating overseas, such as strong interventions in Internet laws and regulations by host governments or slow Internet speeds and bandwidth issues in foreign emerging markets.

To overcome the contextual hurdles and expand to foreign markets at a faster pace, many ECCs engage in international strategic alliances – collaborative agreements to exchange and co-develop information, technologies and innovative products or services across national borders (Johanson & Vahlne, 2009). For instance, in 2017 JD.com Inc., China's second biggest ECC, formed joint venture with top Thai retailer Central Group in e-commerce and financial technology to boost its presence in Southeast Asia (Reuters, 2017). While institutional factors have increasingly grasped attention from emergent studies on international strategic alliances (e.g., Choi & Contractor, 2016; Ho, Ghauri & Larimo, 2018), a hidden assumption of these studies seem to focus on international partnerships formed by the experienced, consolidated firms in their home markets, neglecting those relatively young and small-scaled firms that often require greater external support in resource and information exchanges to facilitate internationalization. Hence, this study places emphasis on international strategic alliances formed by ECCs and explores the key factors impeding/improving the collaborative performance in e-commerce industry.

Based on the co-evolutionary view (Lewin, Long & Carroll, 1999; Koza & Lewin, 1998), in which organizations and environments as co-evolving in relation to each other, extent international business research has attributed a number of partner and contextual characteristics affecting

the alliance development process, such as partner firms' strategic portfolios, competitive environments, institutional influences and extra-institutional changes (i.e., technological, socio-political and other environmental phenomena). Though reality and the nature of ECCs suggest that they are likely to form strategic alliances in foreign markets because they face greater liabilities of outsidership (Brouthers et al., 2016; Johanson & Vahlne, 2009), we must be aware that it is impractical to compare ECCs with traditional multinational corporations in terms of partner and contextual factors underlying their differences in explaining the alliance performance. This is because these two different organizations involve quite different internal and external parameters in their internationalization processes.

Broadly defining e-commerce is buying, selling, marketing or commercializing of products, services and information through a variety of Internet networks. To unveil the unique determinants of alliance performance in e-commerce industry, this study identifies underlying partner and contextual factors that are only associated with ECCs. This attempt is of some theoretical and managerial interests. While most prior studies suggested ECCs are benefited from a global connected economy through ICT-enabled business activities to leapfrog some of conventional barriers or difficulties associated with foreign entry and thus speed up their internationalization pace (e.g., Luo et al., 2005; Oxley & Yeung, 2001), their analyses seemed to neglect the fact that ECCs are network-based, collaborative operations in nature. ECCs may be featured with information and business exchanges in a dimensionless space where buyers and suppliers interact in a real-time fashion (Luo et al., 2005), they do have limitations in foreign market expansion and therefore may require foreign partners' help to achieve and maintain institutional legitimacy in host countries. This void in current research can be complemented by the synthesis of the co-evolutionary view on international strategic alliances. Furthermore, since ECCs operate in a rather peculiar environment, subject to different partner and contextual parameters (Oxley & Yeung, 2001) in explaining the alliance performance, this study could offer a richer knowledge base concerning ECCs' internationalization by identifying the unique partner and contextual characteristics, and most crucially, by investigating the interaction among these determinants of alliance performance in e-commerce industry.

Determinants of International Strategic Alliance Performance in E-commerce Industry

Partner Characteristic – Partner Reputation

ECCs on the Internet resemble network organizations in the form of interdependent coalitions of task or skill specialized entities (Achrol & Kotler, 1999; Singh & Kundu, 2002). They generate value by providing the platform and organizing the input of users (manufacturers, exports, imports, or suppliers etc.), as well as manage the cross-relationships of the various users (Brouthers et al., 2016). A typical example of ECCs is alibaba.com, the world's biggest ECC based in China (Kochkodin, 2017), which allows individuals and firms to interact, and buy and sell products or services online. Since the core offerings of ECCs are fully digital and are transferred over electronic networks, they are instantly accessible from anywhere in the world and the costs of transferring an ECC's business from one country to another are thereby relatively small (Brouthers et al., 2016). They may be influenced to a lesser extent by investment risks related to liabilities of foreignness that are often encountered by product-based firms in internationalization (Denk, Kaufmann & Roesch, 2012), but rather facing greater liabilities of outsidership because their main concern in internationalization is the creation of a large enough network of users to generate value on their platforms and businesses (Brouthers, et al., 2016: Johanson & Vahlne, 2009).

Liabilities of outsidership, as the synthesis of internationalization process and network theories in international business literature, suggests that when a firm enters a new foreign market it might be an outsider because it has few relations with other firms and potential collaborators in the host country (Brouthers et al., 2016; Johanson & Vahlne, 2009). Given multinational accessibility of ECCs' operations, their values are generated by users and existing user networks that are often not transferrable to the new foreign market, and thus they require to concentrate internationalization efforts on developing a new network of users in the host country. For ECCs, liabilities of outsidership are viewed as the lack of direct ties to potential platform users in the target foreign market (Brouthers et al., 2016). Their offerings only provide value for users if the number of users in a particular market along with the amount of interaction between these users reaches a critical mass (Katz & Shapiro, 1994). To minimize such investment risks, ECCs may take actions such as partnering with reputable, wellknown local firms to become fully embedded in target user community and transform as indigenous players in the new foreign markets.

Partnering with local firms with good reputation has a number of practical implications. First, these reputable local ECCs usually possess competitive advantages of economics of scale. They are the market leaders with large user bases and in-depth knowledge about the local user preferences. Some reputable ECCs are the pioneers in their industries and set up the game of rules to create unique eco-systems of e-commerce industries for their local markets. In their business empires, these local ECCs control substantial network-based resources and build intimate relationships with local logistics providers, distribution channels, online and offline users, and most importantly, with host country governments. On top of these, foreign ECCs can leverage their local partners' extensive network-based collaborations to offset the liabilities of outsidership. Second, as the core of ECCs' operations often involves knowledge transfer, information/ data sharing, or business model integration across national boundaries, they inevitably encounter varied institutional and infrastructure-related challenges in their internationalization. These challenges on the one hand include the different regulations and laws concerning ICT developments, intellectual property protection, or Internet user date collection and privacy issues between home and host countries; on the other hand, concern the underdeveloped ICT infrastructure such as the slow Internet connection and bandwidth speed in some emerging or developing countries, or simply just the technology gaps in terms of incompatible knowledge management systems and data processing. These high entry barriers for foreign ECCs, due to some extent of liabilities of foreignness, can be reduced by international partnerships with reputable local partners.

Reputations symbolize the actions and characteristics that a firm has exhibited in the past and can be expected to exhibit in the future (Huston, 2003). A wide range of management literature, including resource-based, resource dependence, transaction cost economics, agency, and game theories, has recognized the positive role of reputation in explaining alliance formation and outcomes (e.g., Dollinger, Golden & Saxton, 1997; Jensen & Roy, 2008). For foreign ECCs, forming international alliances with local firms that have positive reputation can reduce transaction costs not only in searching qualified, acceptable partners, but also in monitoring and evaluating the cooperative performance because their partners tend to be more visible and publicly examined. While transaction cost economics logic suggests

high reputation can substitute for expensive governance mechanisms (Hennart, 1991), marketing and financial literature largely views a firm's reputation as a signal to the market, providing information about quality, integrity and opportunistic behavior and thus reducing information asymmetry and consumer uncertainty (Erdem & Swait, 1998; Houston, 2003). In line with the prior studies (e.g., Hitt, Dacin, Levitas, Arregle & Borza, 2000), we thus posit local partner reputation as an important factor in international strategic alliance success in e-commerce industry.

Proposition 1: Partner reputation positively affects international strategic alliance performance in e-commerce industry.

Partner Characteristic - Partner Fit

ECCs have multinational accessibility from the inception, and thus they often face greater competition not only from domestic firms but also from all over the world. While expanding to international markets with varied developments in e-commerce industries, ECCs tend to encounter the liabilities of outsidership in three scenarios (Brouthers et al., 2016). First, they may enter a new foreign market in which no other firm offers a similar business activity/ platform. Such untapped group of users may be resulted from the early development of e-commerce industry in the host country or simply because there are shadow users whose demands have been overlooked by the existing players. Nonetheless, there is no user network at present and thus foreign ECCs lack direct ties to potential users in the local contexts. Developing a new set of users may offer foreign ECCs an opportunity to establish firstmover advantages but increases the cost/ difficulty of entry (Eisenmann, 2006).

The second scenario that foreign ECCs may confront liabilities of outsidership is when they enter a new market in which a dominant player already exists. Entering such matured and highly competitive market is difficult and often leads to failure because the dominant firm has established a large user base, generating high switching costs that inhibit the present users from migrating to new platforms provided by foreign ECCs. The third scenario is mixed when foreign ECCs enter a new market in which there are multiple rivals without

an established dominant player. In this kind of market late movers can make important inroads (Cennamo & Santalo, 2013), benefiting from a large and growing network of users and switching costs tend to be lower (Eisenmann, Parker & van Alstyne, 2006). Foreign ECCs in this scenario may engage in differentiation and positioning strategies, concentrating efforts on quickly becoming embedded in the local user network and attracting both new users and users of other competitor platforms in the host country.

To overcome or minimize the investment risks across these scenarios, the Internet-based multinationals that are largely small- or medium-sized firms often strategically use complementary assets through networks of partnerships and alliances in foreign markets. This parallels to the resource dependence theory (Davis & Cobb, 2009; Pfeffer & Salancik, 1978) on international strategic alliance formation, in which it suggests that firms manage their dependencies in the face of uncertainty and that, as the environments become more uncertain and dependencies increase, firms will seek closer relationships to improve information exchange, commitment, legitimacy and exchange stability (Fink, Edelman, Hatten & James, 2006). This indicates that international strategic alliances are initiated when both foreign and domestic firms are mutually dependent on resources, but the partner possessing more important resources retains strategic control over the others (Yan & Gray, 1994, 2001). As such, one of the resources which play

a crucial role for ECCs' international expansion and growth is the networks of relationships in the host countries. ECCs that lack essential resources such as user bases, marketing or distribution channels, or local knowledge/ service contents can outsource activities to or internalize them from more capable network partners while minimizing relational hazards in host countries (Coviello & Munro, 1995).

The network perspective on internationalization, formulated by Johonson and Mattsson (1988), explains that industrial markets are nothing but networks of relationships firms have with their suppliers, distributors, and competitors across national borders. These relationships exist because firms are dependent on each other's complementary resources. Complementarity is one of the important criteria in partner fit and attractiveness assessment as it reflects the extent to which the image orientations, abilities, and activities of organizations can be integrated successfully (Shah & Swaminathan, 2008). When alliance partners have complementary resources and capabilities, coordination between partners is facilitated and the reliance on trust and commitment becomes less critical because of the reduced fear of opportunism (Shah & Swaminathan, 2008; Williamson, 1975).

By gaining access to specific network resources in e-commerce industry, such as technological prowess, relatively unique products/ services, entrepreneurial culture, marketing skills or distributor contacts in host countries (Knight & Cavusgil, 2004), through interaction between partner firms in an international alliance, foreign ECCs can gain possibilities to benefit and learn from the knowledge and experience of their local partners to overcome or at least reduce liabilities of outsidership and to facilitate successful cross-border business activities (Brouthers, et al., 2016; Hadley & Wilson, 2003). Having a partner with high complementarity of resources, the shared image, and target collaborative goals, outcome benefits and the alliance performance would be more likely to become positive (Shah & Swaminathan, 2008). Hence, we expect partner fit in terms of the complementarity in partners' network resources to positively affect the collaborative performance in e-commerce industry.

Proposition 2: Partner fit positively affects international strategic alliance performance in e-commerce industry.

Partner Characteristic – Inter-partner Relationship

ECCs posit partner reputation and partner fit in sourcing complementary resources as important factors to overcome the liabilities of outsidership when expanding to new foreign markets, inter-partner relationships play a crucial role in explaining how firms move from user-network oursiders to insiders through international strategic alliances. Based on the social network theory (Granovetter, 1973) in which explores how individuals, organizations, or groups interact with others inside and outside their social networks, Larson (1992) argued that social aspects of exchanges are necessary in understanding the control and coordination of partnerships. Due to strong or weak ties between network actors (alliance partners), different benefits including information exchange, trust, and obligations (Bian, 1997) are connected with foreign and local partners in an alliance. While a firm's critical network resources often extend beyond its boundaries and be embedded in inter-firm routines and processes, the relational view (Dyer & Singh, 1998) further suggests that a successful partnership is the result of relation-

specific assets, knowledge-sharing routines, complementary resources/ capabilities and effective governance. Since then, the positive link between on-going dynamic social interactions and inter-organizational activates such as knowledge transfer and information exchange has been increasingly discussed.

Drawing on the context of strategic alliances, for instance, Kale, Singh and Perlmutter (2000) found that inter-partner interactions through mutual trust, respect, and friendship developments between alliance partners positively influence alliance learning. Adler (2001) uncovered that knowledge/ information flows best through trusting communities and believed that social relationships facilitate the transfer of valued resources – especially information and knowledge – by acting as a lubricant (Kachra & White, 2008) in partnerships. Van Wijk, Jansen and Lyles (2008) pointed out that network properties, such as social ties, trusting relationships, and value systems, are relevant to social

resources embedded in partnerships and encompass multifaceted social contexts. Despite the various dimensions of relational/ network characteristics, prior studies have generally agreed upon the positive role played by them in terms of facilitating resource, information, and knowledge exchanges across organizational boundaries.

Since the core offerings of ECCs are fully digital and their virtual resources are diffused over electronic networks, the theoretical lens on the diffusion of innovation theory, as the synthesis of the social network and relational perspectives on international strategic alliance may further improve our understanding of how ECCs build on existing network links to become embedded in new foreign markets. Theorists in innovation diffusion identified various processes or mechanisms that can help firms become embedded in the foreign user market by initiating and accelerating user adoption, such as communication channel through which information about an innovation travels, the nature of the social system, and the deployment of opinion leaders and change agents (Brouthers, et al., 2016; Rogers, 2003). While firms are more willing to take actions in communication or information exchanges if less opportunistic risk is perceived (Ring & Van de Ven, 1994), building a harmonious, trustworthy relationship with the alliance partners is expected to facilitate the diffusion of innovation within the cooperative context.

A positive interaction between partners through frequent communications, mutual trust, and high level of reciprocal commitment in complementary resource exchanges can on the one hand weaken the firm's tendency to control and withhold the critical information that flows to its partner and on the other hand reduce the difficulties and misunderstandings in information sharing and exchanges. As more critical resources (e.g., user bases, local market knowledge, or network relationships) are diffused and shared between alliance partners, foreign ECCs are expected to learn more and enhance their embeddedness in the local environments, leading to successful alliance performance. Hence, in line with much prior studies on cross-border collaborations (e.g., Ho et al., 2018; Muthusamy & White, 2005), we propose a positive association between interpartner relationships and the performance of international strategic alliances in the following.

Proposition 3: Inter-partner relationship positively affects international strategic alliance performance in e-commerce industry.

Contextual Characteristic – Institutional Distance

The rise of ECCs in the past decade, in particular those originating from emerging markets, has changed our conventional view on the firm's internationalization growth and processes. The intuitive appeal of the most salient obstacle to the development of e-commerce industries in many countries is the lack of necessary physical infrastructure (Oxley & Yeung, 2001), such as the household access to personal computers or cost-effective ICT systems. Yet such underdeveloped physical infrastructure that are often can be seemed in developing or emerging countries is in fact the main driving force of e-commerce activities. E-commerce brings the "death of distance" (Cairncross, 1997) and thus reduces transaction costs that are traditionally linked with intermediate markets. It creates a new eco-system that flipped the conventional wisdom of scale economies, repositioned customers as dominant, multi-faceted players in the new digital age.

For ECCs, ensuring accessibility to the Internet use, userfriendly web-based platforms, solid data processing, collection and analysis, prompt customer service, and customized delivery approaches are far more critical success factors than choosing good locations to near customers/ suppliers/business partners or achieving economies of scale in manufacturing sites. Although physical infrastructure may explain much of the variation in e-commerce developments across countries, e-commerce activities depends significantly on supportive institutional environments (Oxley & Yeung, 2001). A number of studies have examined how the institutional environment in a country, in particular the hostcountry legal environment, contributes to or undermines e-commerce developments. Oxley and Yeung (2001) explicitly argued the prosperity of e-commerce activities in a country is a result of adequate rules of law and credible payment channels that facilitate the building of transactional integrity in online markets. A sound institutional environment is a necessity to support the growth of e-commerce, especially in its developmental stage.

Institutions are concerned with what is socially or legally appropriate in institutional settings, including regulatory structures, governmental agencies, laws, courts, and professions (Roy & Oliver, 2009). They embody "rules of the game" (North, 1990: 3) in a country and thus exercise constraint and control, and enable economic activities, affecting both local and foreign firms' strategic choices and behaviors in various ways. Due to low entry and exist costs, information asymmetry is heightened in e-commerce transactions, encompassing not only common problems of private information regarding product exchanges but also potential uncertainty about the very identify of one's trading partner (Oxley & Yeung, 2001). In line with most firms in knowledge-intensive industries (like pharmaceuticals where patents are key strategic assets), ECCs are also concerned about protecting their intellectual property when they license-out or transfer those technologies and valuable information (Choi & Contractor, 2016). Rule-of-law as one of the institutional criteria becomes particularly crucial in explaining why international strategic alliances may fail in e-commerce industries.

Generally, e-commerce laws concerning contracting online, data privacy issues, domain name disputes, electronic fund transfers, electronic signatures, and software contracts and licensing as new frontiers in the institutional system are developed to mitigate online transaction hazards. However, as the development of e-commerce industries varies across countries, so does the e-commerce laws readiness. Disputes between trading partners become abstruse if they are governed by divergent institutional frameworks. To this end, we build on the concept of institutional distance –

the dissimilarities of regulatory, normative, and cognitive institutions between the countries from where alliance partners originate (Kostova & Roth, 2002) – to explain how contextual variations influence the alliance performance. The literature recognizes that institutional distance in various cross-border activities can influence entry mode choices, partner selection, innovation performance (Jean, Sinkovics & Hiebaum, 2014) and international acquisitions (Dikova, Sahib & von Witteloostuijn, 2010). When alliance partners are institutionally distant, online transactions and information exchanges become arduous tasks, because partners need to allocate more time to decode the interpret information, implement compatible work routines and systems, and develop common managerial approaches (Olk, 1997; Simonin, 1999).

Although e-commerce reduces the transaction costs and makes physical distance between partners unimportant, "the decay and loss of (institutional) distance is precisely the decay and loss of knowledge, relationships, and trust (between partners), which in turn undermines the (partner's) ability to act at and over distance (Goodall and Robert, 2003: 1155)". The lack of exposure and understanding for a partner from a divergent institutional environment may also result in uncertainty about the knowledge/information contents exchanges between alliance partners and about how to integrate the complementary resources in order to achieve the cooperative objective. The international partnership might be shaky when institutional distance is high because of various communication barriers and the difficulty to codify and retrieve information that is valuable for the partners. Hence,

Proposition 4: Institutional distance negatively affects international strategic alliance performance in e-commerce industry.

Contextual Characteristic – Home Country Government Support

Many institutional theorists on international strategic alliances suggest that the greater the difference between the institutional environment of the home countries of partnering firms, the greater the need on the part of a foreign investor or alliance partner to adapt and be more responsive (e.g., Choi & Contractor, 2016; Kostova & Roth, 2002; Wang, Hong, Kafouros & Wright, 2012). How to achieve institutional isomorphism in the host countries through experiential learning has been critical to explain successful internationalization. However, this argument based on path dependency perspective assuming firms gain crucial knowledge about host country institutions and develop organizational capabilities only through incremental and time-consuming learning-by-doing processes of conducting business abroad (Casillas & Moreno-Menendez, 2014; Lu, Liu, Wright & Flatotchev, 2014) is not applicable to explain ECCs in which they are born to compete in global markets and often take early actions in internationalization. Lacking experience in internationalization and the critical knowledge about host country institutional environments may be harmful to foreign expansion but they can be complemented by strong level of home country government support.

A growing body of literature on foreign direct investment from emerging markets has showed interests in the role of home country government support in facilitating internationalization, in particular those firms from China (e.g., Cui & Jiang, 2012; Wang et al., 2012). In line with emerging market firms, ECCs are characterized by relatively little internationalization experience and thus home country government support may be crucial for facilitating access to resources and markets, enhancing their capabilities to take risks in foreign entries (Luo & Tung, 2007), and bridging the institutional gaps between home and host countries. Indeed, many countries have introduced foreign investment policies associated with national trade and development objectives that provide various benefits to firms that comply with these policies (Aharoni & Ramamurti, 2008). Home country governments can facilitate ECCs'internationalization by supplying knowledge about foreign countries when venturing abroad, and this knowledge may be contained in official guidance procedures based on knowledge of a particular country collected through diplomatic channels and intensive research carried out by government agencies (Lu et al., 2014).

Apart from supplying information for ECCs, the home country government's policy requirements and preferences or incentive programs can also affect ECCs' capabilities to take risks in the context of uncertainty and information asymmetries concerning foreign markets. While the knowledge and organizational capabilities required for a successful entry may be institutionally embedded, home country government support may foster ECCs to springboard internationally without having accumulated much international experience (Luo & Tung, 2007). Given that some ECCs may have possessed international experience to overcome the foreign investment risks and uncertainties, furthermore, home country government support can still reduce their marginal benefits, other things being equal (Lu et al., 2014).

Considering the interplay between contextual factors and partner characteristics is important for international strategic alliances in e-commerce industries, home country government support, including financial (i.e., funding, tax collection, foreign exchange or customs, etc.) and nonfinancial (i.e., bilateral investment agreements, industrial affairs and exhibitions or bridge certification authorities, etc.) preferential treatments, may help ECCs on the one hand overcome the constraints imposed by liabilities of outsidership in internationalization, so that they can have better access to build harmonious relationships with local firms that have good reputation and complementary resources, and on the other hand offset the investment risks resulting from incompatible institutional schemes between home and host countries. Therefore, in this study we posit home country government support as a key moderator in explaining the varied impacts of partner and contextual characteristics on international strategic alliance performance. Specifically, we expect the positive effects of partner reputation, partner fit and inter-partner relationship

on alliance performance to be strengthened yet the negative effect of institutional distance on alliance performance to be weakened if there is a strong presence of home country government support in the e-commerce industry.

Proposition 5: Home country government support in the e-commerce industry positively moderates the impact of partner reputation on international strategic alliance performance.

Proposition 6: Home country government support in the e-commerce industry positively moderates the impact of

partner fit on international strategic alliance performance.

Proposition 7: Home country government support in the e-commerce industry positively moderates the impact of inter-partner relationship on international strategic alliance performance.

Proposition 8: Home country government support in the e-commerce industry negatively moderates the impact of institutional distance on international strategic alliance performance.

CONCLUSION

This research makes an important contribution to the international business literature by reconceptualizing the co-evolutionary view on international strategic alliances to a specific group of born global firms – ECCs. Given their multinational accessibility from the inception, ECCs are often underestimated to be influence by a lesser extent of investment risks associated with liabilities of foreignness, but rather facing greater liabilities of outsidership because their main concern in internationalization is the creation of a large enough network of users to generate value on their platforms and businesses (Brouthers et al., 2016; Johanson & Vahlne, 2009). We challenge this misleading conception by uncovering institutional distance between home and host countries as a critical impediment in international strategic alliance performance in e-commerce industry. To offset the contextual hurdles, we explore the role of home country government support of international partnerships and its interaction with partner-related characteristics, such as partner reputation, partner fit, and inter-partner interaction.

Our research provides interesting new insights about how ECCs approach internationalization. Since ECCs generate value by providing the platform and organizing the input of users, as well as managing the cross-relationships of the various users in multiple countries, partnering with a local firm with good reputation, complementary resources, and trustworthy relationship, as well as choosing a favorable foreign entry with similar institutional environment are critical determinants of international strategic alliance success. Our findings support such co-evolutionary view on international strategic alliances that while favorable partner reputation, compatible partner fit, and harmonious partner interaction may be the basis for alliance success, institutional distance negatively influences the alliance performance. In this regard, home government support to mitigate the institutional constraints in foreign market expansion may ease the puzzle concerning why e-commerce corporations are not rapidly internationalized as expected and their offerings are often context-specific.

References

Achrol, R.S. & Kotler, P. (1999). Marketing in the network economy. Journal of Marketing, 63: 146-163.

Adler, P.S. (2001). Market, hierarchy, and trust: The knowledge economy and the future of capitalism. *Organization Science*, 12(2): 215-234.

Aharoni, Y., & Ramamurti, R. (2008). The internationalization of multinationals. In J. J. Boddewyn (Ed), *International business scholarship: AIB fellows on the first 50 years and beyond*. Research in Global Strategic Management, Vol. 14, 177–201. Bingley, UK: Emerald Group Publishing Limited.

Bian, Y. (1997). Bringing strong ties back in: Indirect ties, networks bridges and job searches in China. *American Sociological Review*, 62(3): 366–385.

Brouthers, K.D., Geisser, K.M. & Rothlauf, F. (2016). Explaining the internationalization of ibusiness firms. *Journal of International Business Studies*, 47: 513-534.

Cairncross, F. (1997). The Death of Distance. Cambridge, MA: Harvard Business School Press.

Casillas, J.C., & Moreno-Menéndez, A.M. (2014). Speed of the internationalization process: The role of diversity and depth in experiential learning. *Journal of International Business Studies*, 45(1): 85–101.

Cennamo, C. & Santalo, J. (2013). Platform competition: Strategic trade-offs in platform markets. *Strategic Management Journal*, 34(11): 1331–1350.

Choi, J. & Contractor, J.K. (2016). Choosing an appropriate alliance governance mode: The role of institutional, cultural and geographical distance in international research & development (R&D) collaborations. *Journal of International Business Studies*, 47: 210-232.

Coviello, N. & Munro, H. (1995). Growing the entrepreneurial firm: Networking for international market development. *European Journal of Marketing*, 29(7): 49–61.

Cui, J., & Jiang, F. (2012). State ownership effect on firms' FDI ownership decisions under institutional pressure: A study of Chinese outward-investing firms. *Journal of International Business Studies*, 43(3): 264–284.

Davis, G.F. & Cobb, J.A. (2009). Resource dependence theory: past and future, in Bacharach, S. B. (ed.), *Research in the Sociology of Organizations*. London, UK: Elsevier.

Denk, N., Kaufmann, L., & Roesch, J.F. (2012). Liabilities of foreignness revisited: A review of contemporary studies and recommendations for future research. *Journal of International Management*, 18(4): 322–334.

Dikova, D., Sahib, P.R. & van Witteleoostuijn, A. (2010). Cross-border acquisition abandonment and completion: the effect of institutional differences and organizational learning in the international business service industry, 1981-2001. *Journal of International Business Studies*, 41: 223-245.

Dollinger, M.J., Golden, P.A. & Saxton, T. (1997). The effect of reputation on the decision to joint venture. *Strategic Management Journal*, 18(2): 127–140.

Dyer, J.H. & Singh, H. (1998). The relational view: Cooperative strategy and sources of interorganisational competitive advantage. *The Academy of Management Review*, 23(4): 660-679.

Eisenmann, T.R. (2006). Internet companies' growth strategies: Determinants of investment intensity and long-term performance. *Strategic Management Journal*, 27(12): 1183–1204.

Eisenmann, T., Parker, G., & van Alstyne, M.W. (2006). Strategies for two-sided markets. *Harvard Business Review*, 84(1): 92–101.

Ekeledo, I., & Sivakumar, K. (2004). The impact of e-commerce on entry-mode strategies of service firms: A conceptual framework and research propositions. *Journal of International Marketing*, 4(1): 46–70.

Erdem, T. & Swait, J. (1998). Brand equity as a signaling phenomenon. Journal of Consumer Psychology, 7(2): 131–157.

Fink, R.C., Edelman, L.F., Hatten, K.L. & James, W.L. (2006). Transaction cost economics, resource dependence theory, and customer-supplier relationships. *Industrial and Corporate Change*, 15(3): 497-529.

Goodall, K. & Robert, J. (2003). Repairing managerial knowledge-ability over distance. *Organization Studies*, 24(7): 1153-1175.

Granovetter, M.S. (1973). The strength of weak ties. American Journal of Sociology, 78(6): 1360–1380.

Hadley, R.D., & Wilson, H.I M. (2003). The network model of internationalization and experiential knowledge. *International Business Review*, 12(6): 697–717.

Hennart, J.-F. (1991). The transaction cost theory of joint ventures: An empirical study of Japanese subsidiaries in the United States. *Management Science*, 37(4): 483–497.

Hitt, M.A., Dacin, T.D., Levitas, E., Arregle, J.-L. & Borza, A. (2000). Partner selection in emerging and developed market contexts: resource-based and organizational learning perspectives. *The Academy of Management Journal*, 43(3): 449-467.

Ho, M.H.-W., Ghauri, P. & Larimo, J. (2018). Institutional distance and knowledge acquisition in international buyer-supplier relationships: The moderating role of trust. *Asia Pacific Journal of Management*, 35(2): 427-447.

Houston, M.B. (2003). Alliance partner reputation as a signal to the market: Evidence from bank loan alliances. *Corporate Reputation Review*, 5(4): 330-342.

Jean, R.-J. B., Sinkovics, R.R. & Hiebaum, T.P. (2014). The effects of supplier involvement and knowledge protection on product innovation in customer-supplier relationships: a study of global automotive suppliers in China. *Journal of Product Innovation Management*, 31(1): 98-113.

Jensen, M. & Roy, A. (2008). Staging exchange partner choices: When do status and reputation matter? *The Academy of Management Journal*, 51(3): 495-516.

Johanson, J. & Vahlne, J.-E. (2009). The Uppsala internationalization process model revisited: from liability of foreignness to liability of outsidership. *Journal of International Business Studies*, 40(9): 1411-1431.

Johanson, J., & Mattsson, L.G. (1988). Internationalization in industrial systems: A network approach. In N. Hood, & J. E. Vahlne (Eds), Strategies in global competition 287–314. London: Croom Helm.

Kachra, A. & White, R.E. (2008). Know-how transfer: The role of social, economic/competitive, and firm boundary factors. *Strategic Management Journal*, 29: 425-445.

Kale, P., Singh, H. & Perlmutter, H. (2000). Learning and protection of proprietary assets in strategic alliances: Building relational capital. *Strategic Management Journal*, 21(3): 217-237.

Knight, G.A., & Cavusgil, S.T. (2004). Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies*, 35(2): 124–141.

Kochkodin, B. (2017). Alibaba tops Amazon to become the biggest e-commerce company. Accessed on August 30, 2018 from https://www.bloomberg.com/news/articles/2017-10-10/alibaba-tops-amazon-to-become-biggest-e-commerce-company-chart.

Kostova, T. & Roth, K. (2002). Adoption of organizational practice by subsidiaries of multinational corporations: institutional and relational effects. *Academy of Management Journal*, 45: 215-233.

Kotha, S., Rindova, V.P. & Rothaermel, F.T. (2001). Assets and actions: Firm-specific factors in the internationalization of US internet firms. *Journal of International Business Studies*, 32(4): 769-791.

Koza, M.P. & Lewin, A.Y. (1998). The co-evolution of strategic alliances. Organization Science, 9: 255-264.

Larson, A. (1992). Network dyads in entrepreneurial settings: A study of the governance of exchange relationships. *Administrative Science Quarterly*, 37(1): 76-104.

Lewin, A.Y., Long, C.P. & Carroll, T.N. (1999). The coevolution of new organizational forms. *Organization Science*, 10: 535-550.

Loane, S., McNaughton, R.B. & Bell, J. (2004). The internationalization of Internet-enabled entrepreneurial firms: Evidence from Europe and North America, *Canadian Journal of Administrative Sciences*, 21(2): 79-96.

Lu, J., Liu, X., Wright, M. & Filatotchev, I. (2014). International experience and FDI location choices of Chinese firms: The moderating effects of home country government support and host country institutions. *Journal of International Business studies*, 34: 428-449.

Luo, Y., & Tung, R.L. (2007). International expansion of emerging market enterprises: A springboard perspective. *Journal of International Business Studies*, 38(4): 481–498.

Luo, Y., Zhao, J.H. & Du, J. (2005). The internationalization speed of e-commerce companies: An empirical analysis. *International Market Review*, 22(6): 693-709.

Mathews, S. & Healy, M. (2007). The internet and information capability reduces perceived risk of internationalization: An Australian SME perspective. *International Journal of Organizational Behavior*, 12(1): 71–87.

Muthusamy, S.K. & White, M.A. (2005). Learning and knowledge transfer in strategic alliances: A social exchange view. *Organization Studies*, 26(3): 415-441.

North, D.C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge, UK: Cambridge University Press.

Olk P. (1997). The effect of partner differences on the performance of R&D consortia. In Beamish P. and Killings J. (eds.), *Cooperative Strategies: American Perspectives*. New Lexington Press: San Francisco, CA: 133-159.

Oviatt, B. & McDougall, P. (1995). Global start-ups: Entrepreneurs on a worldwide stage. *Academy of Management Executive*, 2(1): 30–43.

Oxley, J.E. & Yeung, B. (2001). E-commerce readiness: Institutional environment and international competitiveness. *Journal of International Business Studies*, 32(4): 705-723.

Petersen, B., Lawrence, S. W. & Liesch, P. W. (2002). The internet and foreign market expansion by firms. *Management International Review*, 42(2): 207–221.

Pfeffer, J. & Salancik, G.R. (1978). *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper and Row.

Reuters. (2017). JD.com, Thai retailer Central Group form \$500 million e-commerce JV. Accessed on August 30, 2018 from https://www.reuters.com/article/us-jd-com-centralgroup/jd-com-thai-retailer-central-group-form-500-million-e-commerce-jv-idUSKCN1BQ0A1.

Ring, P.S. & Van de Ven, A.H. (1994). Developmental processes of cooperative interorganisational relationships. *The Academy of Management Review*, 19(1): 90-118.

Rogers, E.M. (2003). Diffusion of Innovations, 5th ed. New York: Free Press.

Roy, J.-P. & Oliver, C. (2009). International joint venture partner selection: The role of the host-country legal environment. *Journal of International Business Studies*, 40: 779-801.

Shah, R.H. & Swaminathan, V. (2008). Factors influencing partner selection in strategic alliances: The moderating role of alliance context. *Strategic Management Journal*, 29(5): 471-494.

Simonin, B.L. (1999). Ambiguity and the process of knowledge transfer in strategic alliances. *Strategic Management Journal*, 20: 595-623.

Singh, N. & Kundu, S. (2002). Explaining the growth of e-commerce corporations (ECCs): An extension and application of the eclectic paradigm. *Journal of International Business Studies*, 33(4): 679–697.

Van Wijk, R., Jansen, J.J.P. & Lyles, M.A. (2008). Inter- and intra-organizational knowledge transfer: A meta-analytic review and assessment of its antecedents and consequences. *Journal of Management Studies*, 45: 830-853.

Wang, C., Hong, J., Kafouros, M. & Wright, M. (2012). Exploring the role of government involvement in outward FDI from emerging economies. *Journal of International Business Studies*, 43: 655-676.

Williamson O. (1975). Markets and Hierarchies. Free Press: New York.

Yan, A. & Gray, B. (1994). Bargaining power, management control, and performance in United States-China joint ventures: a comparative case study. *Academy of Management Journal*, 37: 1478-1517.

Yan, A. & Gray, B. (2001). Antecedents and effects of parent control in international joint ventures. *Journal of Management Studies*, 38: 393-416.

Vol. 2

No.2 Regular Issue





Andy, Wui-wing Cheng and Ancus, Wai-yan Shum

The Hang Seng University of Hong Kong

INTRODUCTION

The initial motivation for digital currencies was disintermediation with the concern that central banks cannot be entrusted to maintain the value of money deposited in the financial system. With the raise of crypto assets such as bitcoin, it appears that crypto assets have gradually been considering as new investment class, at least from an institutional perspective. Almost 1,400 digital currencies have been issued with a market value equivalent to USD573 billion at the end of December 2017¹. In 2013, the price of a bitcoin was about USD13, which increased drastically to USD14,000 at the end of 2017 before declining to USD6,300 in October 2018². Such a high volatility of bitcoin relative to other asset classes poses an opportunity for pairs trading if bitcoin is found to have a common stochastic trend with stationary co-integration relationship with

other asset prices and such divergence in spread is due to temporary shocks.

The first practice of statistical pairs trading is attributed to Wall Street quant Nunzio Tartaglia in mid 1980s, who involved trading securities in pairs. Pairs trading identify mutual mispricing between two securities captured by the notion of spread; the greater the spread, the higher the magnitude of mispricing and greater the potential profit (Vidyamurthy 2004). Academically, one of the most popular references is from Gatev et al. (1999, 2006), they applied the algorithm on a large sample of U.S. equities, CRSP 1962-2002, and yields annualized excess returns of up to 11% at low exposure to systematic sources of risk. Replicated by later authors, Do and Faff (2010, 2012) also reported a 7%

¹ https://coinmarketcap.com/historical/

² https://coinmarketcap.com/coins/

return p.a. based on a larger sample U.S. CRSP 1962-2009. In a similar vein, studies conducted by Padadakia and Wisocky (2008), Engelberg et al. (2009), Jacobs and Weber (2011), Mori and Ziobrowski (2011), Broussard and Vaihekoski (2012) and Huck (2013) examined various dimensions and implications of pairs trading strategies.

One of the major approaches of pairs trading is statistical arbitrage pairs with co-integration test, which is mainly based on the methodology developed by Engle Granger (1987). The potential co-integration between the pairs is examined by analysing the order of integration of the residual using Dickey and Fuller test (1979). However, since this technique is far too restrictive, Pesaran and Shin (1999) and Pesaran et al. (2001) proposed a more flexible ARDL bounds test in order to overcome the shortcomings of the Engle Granger co-integration test. Accordingly, Jagannathan and Viswanathan (1988), Bossaerts and Green (1989), and Chen and Knez (1995) incorporated the idea of mean reversion between stock prices with a view to explore the deviations from an equilibrium asset pricing framework with non-stationary common factors.

This paper explores the co-integration relationship of bitcoin with other major asset classes such as equity, gold, oil, bonds and currencies. Trading signal will be generated for our pairs trading with bitcoin. Our study tries to fill the gap in financial literature and shed the light to develop quantitative approaches for active investment strategies with bitcoin. The paper is divided into following sections. Methodology will be discussed in section 2, empirical results will be presented in section 3, conclusion is made in section 4.

DATA AND METHODOLOGY

Data

Financial time series data for equities, gold, oil, currencies and bonds are obtained from Bloomberg, while the price of Bitcoin is gathered from the website 'coinmarketcap' for period between April 2013 and May 2019, with the exception of NYSE FAANG Index, which starts from September 2014.

Asset Classes	Times Series	Logged Series Symbols
Equities	MSCI Index	MSCI
Equities	S&P500 Index	SP
Equities	NYSE FANG Index	FAANG
Equities	STOXX Equity Index	STOXX
Gold	Gold Spot USD	GOLDSROT
Gold	GLD US Equity	GOLDE
Oil	WTI World Oil Price	WTI
Oil	Brent World Oil Price	BRENT
Currencies	USD Spot Index	USD
Currencies	EUR Spot Index	EUR
Bonds	Global Treasuy Bond Index	TBOND
Bonds	Global Corporate Bond Index	CBOND
Crypto Currencies	Bitcoin USD Price	BIT

Co-integration and Trading Strategy

Co-integration is a statistical property of time series. If two or more time series share a common trend caused by a set of common factors, then they are deemed cointegrated. It is noteworthy that co-integration is not the same as correlation. Correlation measures the co-movement between time series variables; for example, if one time series move up (down) and the other time series move up (down) together, then they are positively correlated. However, correlation does not guarantee that the variables maintain their close proximity

to each other in the long-run. Co-integration, on the other hand, ensures that the varibales will not deviate significantly from each other in the long run. Once the deviation (or the spread) is significant, the time series will adjust either upward or downward and bring the spread, or equivalently, the distance among time series, back to its equilibrium value. Two time series and are co-integrated is there is a stationary co-integrating vector. Two time series \boldsymbol{Y}_t and \boldsymbol{X}_t are co-integrated is there is a stationary co-integrating vector

$$[Y_t - \beta X_t - \psi] = \varepsilon_t$$

where β denotes the hedge ratio and ψ is a function of deterministic components, including a constant, a time trend and/or a structural break. The spread indicates that a portfolio consists of longing 1 unit of Y and shorting β units of X has a long run conditional equilibrium value that is equal to the value of the deterministic components of the model (i.e. ψ). Any deviations from the equilibrium are supposed to be temporary fluctuations, i.e. ε_t . Therefore, co-integration indicates tradability: if the deviation is large and negative, we long Y and short X as we expect X_t to go down and Y_t to go up; however, if the deviation is large and positive, we short Y and long X, given that we expect Y_t to go down

and X_t to go up. We need to determine the hedge ratio β and the enrty-exit threshold in order to profit from the above trading strategy. The hedge ratio informs us about the trade quantities, i.e. how much of Y do we short (long) and how much of X do we long (short), whereas the enrty-exit threshold sheds light on the appropriate time to implement or close the trade quantities. In order to determine the hedge ratio, we regress Y_t on X_t and the set of deterministic variables. Thereafter, the residuals from the regression ε_t are standardised to form a k-day moving average Z-Score in order to determine the magnitude of the deviations:



$$Z(k) = \frac{\varepsilon_t - \varepsilon_{\mu,t}(k)}{\varepsilon_{\sigma,t}(k)}$$

where $\varepsilon_{\mu,t}({\pmb k})$ denotes the ${\pmb k}$ -day moving mean³ and $\varepsilon_{\sigma,t}({\pmb k})_t$ represents the corresponding ${\pmb k}$ -day standard deviations⁴. Importantly, the 30-day and 60-day moving mean are extensively followed by both investors and traders. For this reason, we set ${\pmb k}$ =30 and ${\pmb k}$ =60 as our benchmarks. The moving average -Score helps us determine our entry-exist threshold and trading rules. If the ${\pmb Z}$ -Score is below ${\pmb -1}$,

the associated asset is under-performed. Therefore, we are going to open a LONG position that comprises of one unit of Y and short β units of bitcoin. On the other hand, if the value of the Z-Score is greater than 1, the associated asset is outperformed, and we are going to open a SHORT position with $1/\beta$ units of Y short and long one unit of bitcoin. We then close the positions if the deviation reverts to equilibrium.

Co-integration Test

There are several ways of performing co-integration tests, with the Engle-Granger (EG) 2-steps residual-based test being the most commmon and traditional method. However, the

EG test is predicated on the assumption that the underlying time-series are integrated at order one, i.e. I(1). If the time-series are integrated at different orders or the time-series

³
$$\varepsilon_{\mu,t}(k) = \frac{1}{2h+1} \sum_{j=-h}^{h} \varepsilon_{t-j}$$

$$^{4}\quad \varepsilon_{\sigma^{2},t}(k) = \frac{1}{2\mathrm{h}+1} \sum_{j=-\mathrm{h}}^{\mathrm{h}} |\varepsilon_{t-j} - \varepsilon_{\mu,t}(k)_{t}|^{2} ; \varepsilon_{\sigma,t}(k)_{t} = \sqrt[2]{\varepsilon_{\sigma^{2},t}(k)}$$

exhibit structural breaks, the EG test cannot be applied. Thus, we apply the autoregressive distributed lag (ARDL) bounds testing technique in order to address the shortcomings of the EG test. Firstly, the bounds test can be used to determine the cointegrating relationship between time-series with a different order of integration as long as the time series are not integrated stochastic trend of order two, i.e. I(2) (Pesaran and Shin, 1999, and Pesaran et al. 2001). Secondly, the single equation bounds test is based on the error correction form of the ARDL model, which paves the way for short run

dynamic in estimation. According to Zivot (1994), the error correction model (ECM) with short run dynamic is more powerful than the EG test. Since not all time-series are I(1)and most time-series of durations exhibit structural breaks, we apply the more flexible bounds testing approach to investigate the long run relationship between potential trading pairs with different intergrated orders. Assume two time series Y_t and X_t are co-integrated with co-integrating vector as shown in equation (1). The corresponding ARDL-Error Correction Model (ARDL-ECM) is as follows:



$$\Delta Y_{t} = -\gamma (Y_{t-1} - \beta X_{t-1} - \psi) + \sum_{i=1}^{p-1} \alpha_{i} \Delta Y_{t-i} + \sum_{i=0}^{q-1} \varphi_{i} \Delta X_{t-i} + \varepsilon_{t}$$

where $r = 1 - \sum_{i=1}^{p} a_i$ and the term in bracket $Y_{t-1} - \beta X_{t-1} - \psi$ denotes the error correction term (ECT). The equation is often re-written as

$$\Delta Y_{t} = \phi Y_{t-1} + \theta X_{t-1} + \Psi + \sum_{i=1}^{p-1} \alpha_{i} \Delta Y_{t-i} + \sum_{i=0}^{q-1} \varphi_{i} \Delta X_{t-i} + \varepsilon_{t}$$

where ψ denotes a reparametized function of ψ , $\phi = -\gamma$ and $\theta = -\phi \beta$. The coefficient ϕ refers to the speed of adjustment parameter (ADJ). A positive coefficient signifies divergence, while a negative coefficient indicates convergence. The coefficients α_i and φ_i short-run dynamics. The ARDL-ECM model can be estimated to implement the bounds test for cointegration postulated by Pesaran, Shin, and Smith (2001). Following their methodology, the F-type test for the null hypothesis of no cointegration is to test the joint null hypothesis of

$$H_{F0}: \phi = \theta = 0$$

against the alternative of

$$H_{F0}: \phi \neq \theta \neq 0$$

Rejection of the null hypothesis of the F-type test implies cointegration. The t-type test has a null hypothesis of H_{t0} : $\phi = 0$ against the alternative of H_{t0} : $\phi < 0$. The t-test is equivalent to testing if the adjustment parameter (ADJ) in the ARDL-ECM model is found to be negative. Meanwhile rejection of the null hypothesis of the F-type test implies cointegration. The null hypothesis of no level relationship of the bounds test is rejected if both the and-statistics are found to be more extreme than critical values for I(1)variables (i.e. if p-values < 0.1). The distributions of the Fand *t*- statistics are non-standard. The approximate p-values for F and t- statistics can be sourced from Kripfganz and Schneider (2018).

EMPIRICAL RESULTS

We apply the ARDL bounds test to the entire logged time series list in the data section with $X_t = BIT_t$ and the other time series as Y_t . Table 1 illustrates the co-integration results where it indicates that MSCI Index, S&P500 Index, NYSE FANG Index, Gold Spot in USD, GLD US Equity, and

EUR are co-integrated with bitcoin. The coefficients for the adjustment factors (ADJ) for all co-integrated asset classes are negative, which means there exists a long run tandem movement in prices with mean reversion phenomenon when pairing with bitcoin.

Table 1: Co-integration Test Results

Series Y_t	I (1) F	I (1) t	F p-value	t p-value	p Lag	q Lag	Test Result	$\mathrm{ADJ}\left(\phi\right)$
MSCI	6.6549*	-5.1575*	0.0031	0.0012	5	2	Cointegrated	-0.0302
SP	8.0591**	-5.6644**	0.0004	0.0002	1	2	Cointegrated	-0.0375
SXXE	2.6652	-3.1353	0.4015	0.2536	5	0	Not Cointegrated	-0.0126
FAANG	5.3757*	-4.6004**	0.0182	0.0082	2	0	Cointegrated	-0.0332
GOLDSPOT	5.7922*	-4.7077**	0.0103	0.0058	4	3	Cointegrated	-0.0222
GOLDE	5.7914*	-4.7111**	0.0103	0.0057	4	3	Cointegrated	-0.0226
WTI	1.8301	-1.8729	0.7253	0.7999	2	0	Not Cointegrated	-0.0047
BRENT	1.2363	-0.8819	0.9205	0.9722	2	0	Not Cointegrated	-0.0022
TBOND	3.0488	-3.4357	0.2830	0.1524	2	4	Not Cointegrated	-0.0135
CBOND	2.1776	-2.8187	0.5855	0.3877	4	5	Not Cointegrated	-0.0110
USD	3.5265	-3.6439	0.1737	0.1014	3	0	Not Cointegrated	-0.0157
EUR	5.0717*	-4.3152*	0.0271	0.0194	1	0	Cointegrated	-0.0234

The approximate p-values for the F and t- statistics can be sourced from Kripfganz and Schneider (2018); *p < 0.1, **p < 0.05, ***p < 0.01

ARDL-ECM Model: $\Delta Y_t = \phi Y_{t-1} + \theta BIT_{t-1} + \Psi + \sum_{i=1}^{p-1} \alpha_i \Delta Y_{t-i} + \sum_{i=0}^{q-1} \varphi_i \Delta BIT_{t-i} + \varepsilon_t$

Bounds Test: Ho: No level relationship; Ha: Cointegrated

F-Test: $H_{F,0}$: $\phi = \theta = 0$; $H_{F,a}$: $\phi \neq \theta \neq 0$ t-Test: $H_{t,0}$: $\phi = 0$; $H_{t,a}$: $\phi < 0$

To determine the hedge ratio, we regress Y_t (i.e. MSCI, SP, FAANG, GOLDSPOT, GOLDE and EUR) on X_t (i.e. BIT) and the set of deterministic variable using the data from April 2013 to Dec 2017, i.e. the 'formation period'. The deterministic variables include a constant, a time trend t and a structural break τ . The coefficients obtained through

the formation period will be used to form the robust test for the 'trading period' - Jan 2018 to May 2019. Table 2 shows the respective hedge ratios and coefficients for various co-integrated assets. For example, the hedge ratio for the MSCI/bitcoin pair is 0.0318. It implies that a unit increase in BIT multiplies MSCI by 1.0323 = exp(0.0318).

Table 2: Hedge Ratio and Coefficients

	MSCI	SP	FAANG	GOLDSPOT	GOLDE	EUR
BIT	0.0318***	0.0162***	0.0940***	0.0268***	0.0267***	0.0273***
	(0.0011)	(0.0010)	(0.0029)	(0.0017)	(0.0017)	(0.0010)
t	0.0003***	0.0004***	0.0010***	-0.0003***	-0.0003***	-0.0000***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
DU	-0.1384***	-0.1295***	-0.1847***	0.1557***	0.1557***	-0.0703***
	(0.0030)	(0.0028)	(0.0055)	(0.0045)	(0.0045)	(0.0027)
μ	7.1509***	7.3228***	5.9149***	7.0654***	4.7292***	6.6915***
	(0.0053)	(0.0049)	(0.0106)	(0.0088)	(0.0088)	(0.0051)
N	1220	1220	855	1220	1220	1220

 $[\]tau = 1$ if $\tau \ge TB$ and TB is a break date which is determined exogenously using the supremum Wald test.

The residuals from the above regressions are then standardized to form the -Score. If the -Score is below -1, we open a LONG position comprising of one unit of Y and short β units of bitcoin. If the value of the Z-Score is greater than , we open a SHORT position with $1/\beta$ units of Y

short and long one unit of bitcoin. Subsequently, we close the positions if the deviation reverts to equilibrium. As an illustration, assume that the cointegrated pair y = In(Y) and x = In(X) with $\beta = 2$; have the following information when the Z-Score drops below -1 at date t:

$$y_t = \ln(Y_t) = $20;$$
 $x_t = \ln(X_t) = 5

In this case, we are going to open a LONG position by buying 1 unit of y and shorting 2 units of x which result in a cash

flow of \$10=-\$20+(2*5). At date t+1, the Z-Score returns to zero and we are left with the following information

$$y_t = \ln(Y_t) = $22;$$
 $x_t = \ln(X_t) = 1

Therefore, we close the LONG position by selling 1 unit of and settle the short position in x such that the resulting cash flow of the transaction is 20=22-(2*1). The log gain of the LONG position is 10=-10+20 and the return on the log position is [-10+20)/10=1.

Table 3 and Table 4 illustrate the 30 days and 60 days Z-score trading signal for the MSCI/bitcoin pair, respectively (other asset classes illustrations can be provided upon request due to page limitation).

Table 3: 30 days Moving Average Z-score Trading Signal for MSCI/bitcoin Pair

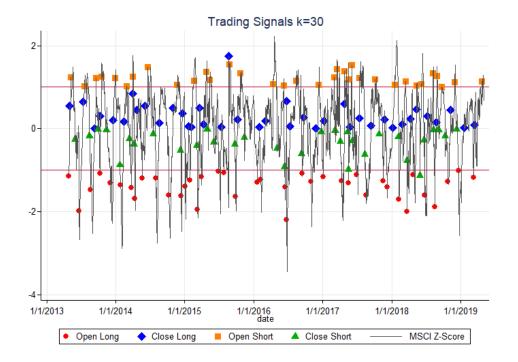


Table 4: 60 days Moving Average Z-score Trading Signal for MSCI/bitcoin Pair

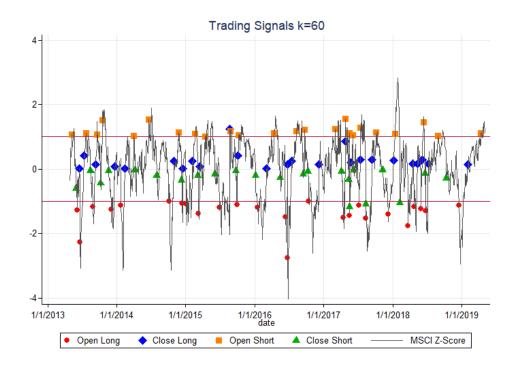


Table 5 and Table 6 depict the estimated returns for both formation period and trading period. It is indicated that positive returns are generated during both periods with the

statistical arbitrage pairs. It is found that the returns from cointegrated pairs equity/bitcoin and gold/bitcoin out-perform the EUR/bitcoin currency pair during the sample period.

Table 5: Return Estimations for 30-day Moving Average Z-score

			Formation Period		Trading Period	
Series	Position	Profitability Measure	Cumulative Gain/Return	Average Gain/Return Per Transaction	Cumulative Gain/Return	Average Gain/Return Per Transaction
	LONG	Log Gain	0.8302	0.0268	0.2818	0.0313
MSCI	SHORT	Log Gain	3.5279	0.1411	6.3577	0.7947
MSCI	LONG	Return	11.64%	0.38%	3.8902%	0.4322%
	SHORT	Return	1.92%	0.08%	3.2927%	0.4116%
	LONG	Log Gain	0.9232	0.0264	0.2735	0.0391
SP	SHORT	Log Gain	11.9352	0.4420	8.9727	1.7945
SF	LONG	Return	12.4524%	0.3558%	3.5839%	0.5120%
	SHORT	Return	4.1500%	0.1537%	2.9482%	0.5896%
	LONG	Log Gain	1.1977	0.0499	0.4750	0.0679
FAANG	SHORT	Log Gain	2.2088	0.1163	1.7688	0.2211
FAANG	LONG	Return	19.3359%	0.8057%	7.2426%	1.0347%
	SHORT	Return	3.9594%	0.2084%	2.6919%	0.3365%
	LONG	Log Gain	0.7024	0.0319	0.2212	0.0246
GOLDSPOT	SHORT	Log Gain	24.1260	1.0052	5.0558	0.7223
GOLDSPOT	LONG	Return	10.1830%	0.4629%	3.2340%	0.3593%
	SHORT	Return	10.1219%	0.4217%	2.0972%	0.2996%
	LONG	Log Gain	0.6672	0.0290	0.1987	0.0221
GOLDE	SHORT	Log Gain	24.1308	0.9652	4.9527	0.8254
GOLDE	LONG	Return	14.6560%	0.6372%	4.4318%	0.4924%
	SHORT	Return	14.8001%	0.5920%	2.9950%	0.4992%
	LONG	Log Gain	0.2697	0.0128	0.1012	0.0112
EUR	SHORT	Log Gain	7.6143	0.2719	2.4155	0.3019
EUR	LONG	Return	4.0971%	0.1951%	1.5403%	0.1711%
	SHORT	Return	3.0183%	0.1078%	0.9400%	0.1175%

Table 6: Return Estimations for 60-day Moving Average Z-score

			Formation Period		Trading Period	
Series	Position	Profitability Measure	Cumulative Gain/Return	Average Gain/Return Per Transaction	Cumulative Gain/Return	Average Gain/Return Per Transaction
	LONG	Log Gain	0.5388	0.0284	0.1984	0.0331
MSCI	SHORT	Log Gain	2.0968	0.1048	4.0902	1.3634
MSCI	LONG	Return	7.56%	0.40%	2.7398%	0.4566%
	SHORT	Return	1.15%	0.06%	2.1115%	0.7038%
	LONG	Log Gain	0.7924	0.0283	0.1968	0.0492
SP	SHORT	Log Gain	7.1384	0.3757	7.9734	1.9933
SP	LONG	Return	10.7158%	0.3827%	2.5810%	0.6453%
	SHORT	Return	2.4587%	0.1294%	2.6164%	0.6541%
	LONG	Log Gain	0.7876	0.0606	0.3076	0.1025
FAANG	SHORT	Log Gain	1.3083	0.0727	1.3198	0.2200
FAANG	LONG	Return	12.7259%	0.9789%	4.7217%	1.5739%
	SHORT	Return	2.4569%	0.1365%	1.9987%	0.3331%
	LONG	Log Gain	0.6212	0.0414	0.0552	0.0276
GOLDSPOT	SHORT	Log Gain	16.1527	1.1538	2.3277	0.7759
GOLDSFOI	LONG	Return	8.9933%	0.5996%	0.8062%	0.4031%
	SHORT	Return	6.7619%	0.4830%	0.9666%	0.3222%
	LONG	Log Gain	0.6526	0.0408	0.0571	0.0286
GOLDE	SHORT	Log Gain	15.2811	1.1755	2.2854	0.7618
GOLDE	LONG	Return	14.3034%	0.8940%	1.2752%	0.6376%
	SHORT	Return	9.3333%	0.7179%	1.3848%	0.4616%
	LONG	Log Gain	0.2601	0.0173	0.0793	0.0132
EUR	SHORT	Log Gain	7.4161	0.4944	1.8931	0.3786
EUK	LONG	Return	3.9490%	0.2633%	1.2077%	0.2013%
	SHORT	Return	2.9326%	0.1955%	0.7361%	0.1472%

CONCLUSION

Bitcoin and digital currencies are receiving much attention from asset managers. On the one hand, investors may fear the asset price bubbles of bitcoin experienced over past few years, while on the other hand some investors believe there is still room for increase given their scarcity and disintermediation features. However, we do not have a magic way to foresee the price movement in future. Therefore, it would be prudent to take a different approach by using bitcoin or crypto asset as part of the components in the portfolio through pairs trading. The co-integration relationship of bitcoin with the selected asset pair making it a perfect combination for pairs trading. As models of co-integrated time series are common places in the literature and application in financial series, the statistic theoretical valuation concepts can help us to identify the co-integrated pairs. The key is to trade on the fluctuations about the equilibrium value of the spread and profit from unwinding the positions, without the need to pay too much attention on the fluctuations of the asset prices. Further research activities can be performed on various techniques to determine the trading signals on top of the Z-score moving average.

References

Bossaerts, P., & Green, R. (1989). A general equilibrium model of changing risk premia: theory and tests. Review of Financial Studies, 2, 467-493.

Broussard, J. P., & Vaihekoski, M. (2012). Profitability of pairs trading strategy in an illiquid market with multiple shares classes. *Journal of International Financial Markets, Institutions and Money*, 22, 1188-1201.

Chen, Z., & Knez, P. (1995). Measurement of market integration and arbitrage. Review of Financial Studies, 8, 287-325.

Dickey, D. A., & Fuller, W. A. (1979). Distribution of the estimates for autoregressive time series with a unit root. *Journal of the American Statistical Association, 74,* 427-428.

Do, B., & Faff, R. (2010). Does simple pairs trading still work? . Financial Analysts Journal, 66(4), 83-95.

Do, B., & Faff, R. (2012). Are pairs trading profits robust to trading costs? Journal of Financial Research, 35(2), 261-287.

Engelberg, J., Gao, P., & Jagannathan, R. (2008). An anatomy of pair trading. Quantitative Finance, 5, 271-276.

Engle, R. F., & Granger, C. J. (1987). Cointegration and error correction: representation, estimation, and testing. *Econometrica*, *55*, 251-276.

Gatev, E., Goetzmann, W. N., & Rouwenhorst, K. G. (1999). Pairs trading: performance of a relative value arbitrage rule. Working Paper. Yale School of Management's International Center for Finance.

Gatev, E., Goetzmann, W. N., & Rouwenhorst, K. G. (2006). Pairs trading: performance of a relative value arbitrage rule. *Review of Financial Studies*, *19*(3), 707-827.

Huck, N. (2013). The high sensitivity of pairs trading returns. Applied Economics Letters, 20, 1301-1304.

Jacobs, H., & Weber, M. (2011). Losing sight of the trees for the forest? Pairs trading and attention shifts. SSRN eLibrary.

Jagannathan, R., & Viswanathan, S. (1988). Linear factor pricing, term structure of interest rates and the small firm anomaly. Working Paper 57. Department of Finance, Northwestern University, Evanston, IL.

Kripfganz, S., & Schneider, D. (2018). Response Surface Regressions for Critical Value Bounds and approximate p-values in Equilibrium Correction Models. Manuscript. University of Exeter and Max Planck Institute for Demographic Research.

Mori, M., & Ziobrowski, A. (2011). Performance of pairs trading strategy in the US REIT market. *Real Estate Economics*, 39, 409-428.

Papadakis, G., & Wiscoky, P. (2008). Pairs trading and accounting information. Working Paper. MIT Sloan School of Management, Cambridge, MA.

Pesaran, M. H., & Shin, Y. (1999). An Autoregressive Distributed Lag Modeling Approach to Cointegration Analysis. In S. Strom, A. Holly, & P. Diamond, *Centennial Volume of Rangar Frisch*. Cambridge: Cambridge University Press.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds Testing Approaches to the Analysis of Level Relationships. *Journal of Applied Econometrics*, 16(3), 289-326.

Vidyamurthy, G. (2004). Pairs Trading: quantitative methods and analysis. New Jersey: John Wiley & Sons, Inc.



02 A STUDY ON THE FEASIBILITY OF CAFFÈ NERO ENTERING THE CHINESE MARKET

Xinyi Wang and Yin Yuan

University of Nottingham, UK and Zhongnan University of Economics and Law, China

INTRODUCTION

Caffè Nero Group Ltd is a British coffee-house chain which was started in 1997 in London. From the end of 2000 onwards, Caffè Nero had become an international brand, and plans to open approximately 50 – 60 new stores annually. Currently, the company operates more than 700 stores worldwide with over 5000 experienced baristas and sustain team (Caffè Nero, 2017a). Nevertheless, the existing Caffè Nero stores are limited in the U.K., Turkey, Poland,

Cyprus and the Middle East. With the heavy saturation in these coffee markets, it is necessary for Caffè Nero to continue its international expansion to more countries. According to the United States Department of Agriculture (2016), the coffee consumption in China has particularly tripled during 2013-2016, thus, China, as the world's second-largest economy, seems to be a good choice for Caffè Nero to expand its geographical business territory.

MOTIVES FOR INTERNATIONALIZATION

Reactive Motives

To draw level with its competitors is an important reactive motive for Caffè Nero. Dachs, Stehrer and Zahradnik (2014) state that better-endowed internationalization process may induce the firm to keep pace with rival firms under the background of growing competition from abroad. For example, when Starbucks entered the Chinese market in 1998, Starbucks has done an outstanding job to becoming the best-selling coffee brand in China in 2013, which is

higher than the Chinese local coffee brand UBC coffee and British Costa Coffee (Euromonitor 2017). Thus, with the pressure from the competitors such as Starbucks and Costa which have already achieved internationalization in China, there is no doubt that Caffè Nero will enter to the Chinese market in order to draw level with its rivals

Also, the saturated domestic markets are a significant reactive motive. Similar to the competitive pressure, with the domestic coffee market gradually occupied by many other brands, the rest of development opportunities for Caffè Nero are running out. In March 2016, Caffè Nero already has 620 coffee outlets in the UK, it is the third biggest coffee shop chains in the UK, preceded only by Costa and Starbucks (Statista 2017a). Compounded by the fact that the growth rate of numbers of Caffè Nero stores in the UK is significantly slowed down in the recent three years (Statista 2016), this indicating that Caffè Nero needs to achieve further globalization.

Proactive Motives

Except for the reactive motives, there are some proactive motives which enticing Caffè Nero enters more international markets. An important proactive motive for Caffè Nero is the market seeking view. Dunning (2002) demonstrates market seeking motives are taken by firms to ensure market share and sales growth in the target market. The choice of target market usually refers to three conditions: the country's population size, the nationals' interests for those products and the national's expected expenditure on those products. For example, although it has a long history in tea drink rather than coffee in China, the coffee market in China still growth approximately 16% per year over the last ten years, with

total coffee consumption about 1.9 million bags in 2013/14 (International Coffee Organization 2015). Also, Marketing to China (2013) reported that the coffee market in China has reached nearly 116 billion euros from 2003 to 2013.

Moreover, the Caffè Nero's own strategies and ambitions also contributed to its internationalization. After Caffè Nero opened the first oversea store in the United Arab Emirates in 2009, it quickly occupied four new markets in just five years (Caffè Nero, 2017a). Caffè Nero also plans to open about fifty to sixty new shops annually (Caffè Nero, 2017b). Thus, Caffè Nero has no reason to stop entering more countries.

ENVIRONMENTAL ANALYSIS

Generally, the average coffee consumption level will be the first factor to be considered in the environmental analysis process. The reason for it is that lower coffee consumption level areas may exist social-cultural differences (e.g. local residents do not have the coffee-drinking habit). However, the practice of Caffè Nero seems a bit unusual. In the Caffè Nero's existing markets, only the USA belongs to the top ten coffee consuming nations according to the world coffee consumption in 2015 (Statista, 2015a) and world coffee consumption in 2017 (ICO, 2017). Also, compared with the global average coffee consumption (which is 1.3 kg per person per year in 2008) (ChartsBin, 2011), the others such as Turkey even has an extremely low level in coffee consumption (only 0.4 kg per person per year in 2008) (ibid). Therefore, Caffè Nero's own international expansion strategy is not focusing on countries that already have high coffee demand. Jones (2012) explained the reason is, unlike Starbucks, Caffè Nero is not only a coffee shop but also a bar and restaurant, it has quite a variety of popular Italian dishes. Due to this, Caffè Nero consumers usually choose meals rather just drink coffee.

According to Maverick (2015), economic conditions can significantly affect consumers' purchase. Thus, the first factor needs to be considered is the economic situation. From the World Economic Forum report (2017), China is the world's second largest economy which is just under the USA but far more than the third (i.e. Japan). Meanwhile, China's GDP has achieved leapfrog development in recent 10 years, which has been steadily rising (ibid). Although Chinese GDP per capital is only ranked the 80th in the world (World Bank, 2016a), China has the world's largest population base, which means the number of potential consumers is huge.

In addition, ICO (2015) state that, coffee consumption in

China has been increasing about 16 percent annually over the last ten years, and China has become the world's 17th largest coffee consumer with approximate 2 million bags in 2014 (Statista, 2015b). Furthermore, China has an attractive business environment, it has established steady trade relationships with more than 230 countries or regions in the world, ranked third in global international trade (Australian Business 2015).

By contrast, the most considerable drawback for Chinese market is cultural and geographical distance. The Uppsala model indicates that companies gain experience from the domestic market before internationalization, thus culturally and/ or geographically close countries are more easily for them to succeed than culturally and/ or geographically distant countries (Blomstermo and Sharma, 2003). According to this model, it is difficult for Caffè Nero, a British coffee brand, to entry China. Differences in cultural and geographical require Caffè Nero to overcome some regulatory rules-related uncertainty. However, even if the cultural and geographical difference is a problem, it cannot prevent the Chinese market becoming the good choice for Caffè Nero. The first reason is, the Chinese government wants Chinese to buy more western products in order to expand domestic demand and boost domestic spending, and China has already cut its import tariffs again (Bain, 2015). The other reason is, Chinese prefer Western brands because these products are perceived as having higher quality (Cheok 2015). China Daily (2012) also indicates that Chinese prefer foreign brands, top 5 in top 1000 most recognized brands in China are all western brands.

SWOT ANALYSIS OF CAFFÈ NERO IN THE CHINESE MARKET

Strengths

One of Caffè Nero's main strength is its strong brand name and good reputation, which is the central part of Caffè Nero's business model. From 2002 to 2009, Caffè Nero was ranked as 'the best UK coffee house brand' and 'the best coffee quality' for eight years running (Caffè Nero, 2017c). Also, compared with market leader Starbucks and Costa Coffee which is American style coffee, Caffè Nero has a clear unique selling point that is different with its rivals. Caffè Nero committed to building an authentic European coffee house environment with offering high quality products. In addition, Caffè Nero has broader product range than its rivals, according to its official website, the average food sales account for about 35% of total sales. Furthermore, Caffè Nero reduces it operate costs by renting the premises, this behaviour also makes its products cheaper in comparison with its rivals' products. Finally, the sales turnover of Caffè Nero has continuously grown in recent years, and Caffè Nero is continuing making profit (Caffè Nero, 2017b).

Weakness

One of the most serious weakness of Caffè Nero is the negative publicity from the media. For example, BBC (2014) reported that Caffè Nero paid no corporation tax, but it has over 500 shops and made a pre-tax profit over £ 21.1 million in 2013. Meanwhile, Daily Mail (2015) reported that Caffè Nero has not paid corporation tax since 2007, and in 2017 also reported that Caffè Nero pays no corporation tax again although it made £ 25 million profit in 2016. For a company who prepare for entry into foreign countries, these negative publicities are no doubt have negative impacts on its sales, because no one is willing to allow a foreign company to make money but no paid tax. But as long as Caffè Nero pay a fair amount of tax, this problem will be automatically solved. Secondly, Caffè Nero has over 700 stores worldwide currently, but nearly 600 of them are opened in the UK (Statista, 2016). The majority of the Caffè Nero stores are located in the UK, therefore it may lack the experience of internationalization, especially enter to asian countries. Moreover, Caffè Nero need more innovation to update its current food range, only practices with Italian style makes it nearly in a niche market. Niche market refers to some segment markets which are ignored by enterprises that have absolute advantages in the existing market, and those enterprises have not yet perfect supply services in those markets (Toften & Hammervoll, 2012).

Opportunities

First of all, both coffee consumption and production in China have been growing rapidly at a double-digit rate in recent 10 years (growing at approximate 16 percent per annum), and this trend has never show slowing signs (ICO, 2015). Chinese coffee production is more than Kenya and Tanzania combined, and coffee consumption is more than Australia (ibid). In 2014, the coffee consumption in China came to about 1.9 million bags, which makes China become the 17th largest coffee consumer in the world (ibid). With the continuously economy growing, individuals' income rises. Accordingly, people are willing to spend more money on coffee. Thus, these factors offer a vast coffee demand for Caffè Nero. Secondly, in China, the growing urban population and hectic lifestyle give opportunities for on-the-go, single-serve snacks (Food

News International, 2014). Coffee is usually considered as a healthy food with beneficial to individual's health, such as reduce the risk of heart and respiratory disease or eliminate fatigue. As a coffee brand and Italian style food provider, this is a good opportunity for Caffè Nero expand its market to China. However, this opportunity could come back to hinder if Caffè Nero hesitates to seize this opportunity. As mentioned before, despite the growth of coffee consumption, China still is a tea drinking nation, its tea retail sales are almost ten times more than coffee retail sales in 2013 (ICO, 2015). Also, Caffè Nero's rivals such as Starbucks and Costa coffee has already entered into China, thus, consumer's tastes may be changed, or they may become loyal customers for Caffè Nero's rivals.

Threats

One of the major threats for Caffè Nero in China is its competitors. As this paper mentioned before, except for Chinese local brand UBC which capture 22.5 percent market share in 2013 (Euromonitor, 2017), the coffee market share for foreign coffee brand chains such as Starbucks and Costa Coffee are 31.5 percent and 5.5 percent respectively (ibid). Also, Starbucks in China has two different business models, official shops and franchising business, which makes it successfully operates more than 2300 shops in China (Statista, 2017b). However, this threat may be overcome because the brand image is relatively easy to copy for

foreign entrants into the market, and the intense is the inherent of the competitive market landscape.

Also, the other threat that is rental prices. Due to the economy growth in China, the rental prices in the future are possible to continue to skyrocket. For example, In Beijing, according to the National Bureau of Statistics of China (2017), the average rental price was up about 30 percent for the past year. Although this threat cannot to controlled and handled by Caffè Nero, this threat is not unique to Caffè Nero. Its competitors will also encounter such a problem.

CONCLUSION & LIMITATION

Caffè Nero has operated more than 700 stores worldwide but it still needs to expand its geographical business territory due to saturated domestic market, pressure from its competitors. With the significant coffee consumption growth in the Chinese market over the last ten years, Chinese stable economic situation, and Chinese preferences for foreign brands, there is no reason for Caffè Nero to ignore the Chinese market. To enter the Chinese market, although Caffè Nero has to face its weakness and some threats, its strengths and opportunities seem more obvious. Thus, it can be concluded that China is an adaptable choice

for Caffè Nero as its next target market.

Through a series of analysis, this paper provides a certain guidance significance for the Caffè Nero's internationalization strategy, and also provides some reference for other coffee brands to enter the Chinese market. Although this dissertation is as comprehensive as possible, there still has some limitations that cannot be avoided. Firstly, the research used the document analysis as the main research method, and the secondary data is not enough to get the full operating status of Caffè Nero.

It would be better if some primary data was used in the analysis. Secondly, the research mainly used environmental analysis method and SWOT analysis method, there may be a more appropriate research methods in the future. In addition, this paper only analysed the feasibility of Caffè Nero to enter the Chinese market but did not give out suitable entry strategies.

References

Australian Business. (2015) China: the economic environment. [online] available from http://www.australianbusiness. com.au/international-trade/export-markets/china/the-economic-environment> [21/April/2017]

Bain, M. (2015) China wants its people to buy more Western goods—in China [online] available from https:// qz.com/571916/china-wants-its-people-to-buy-more-western-goods-in-china/> [21/April/2017]

BBC. (2014) Caffe Nero accused over tax affairs in viral letter [online] available from < http://www.bbc.co.uk/news/ business-27291283> [22/Arpil/2017]

Blomstermo, A. and Sharma, D. (2003) Learning in the Internationalisation Process of Firms. 1st ed. Cheltenham: Elgar.

Caffè Nero. (2017a) History [online] available from http://www.caffenero.co.uk/story/History_01.aspx [22/ April/2017]

Caffè Nero. (2017b) Financial Performance [online] available from < http://www.caffenero.co.uk/story/performance. aspx> [22/April/2017]

Caffè Nero. (2017c) Ranking [online] available fromhttp://www.caffenero.co.uk/story/Ranking.aspx > [23/ April/2017]

ChartsBin. (2011) Current Worldwide Annual Coffee Consumption per capita [online] available from < http://chartsbin. com/view/581> [24/April/2017]

Cheok, L. (2015) Chinese Demand for Foreign Brand Products [online] available from < https://www.moduslink.com/ chinese-demand-foreign-brand-products/>[1/May/2017]

China Daily. (2012) Chinese prefer foreign brands [online] available from < http://www.chinadaily.com.cn/ china/2012-08/06/content_15647117.htm >[29/April/2017]

Dachs, B., Stehrer, R. and Zahradnik, G. (2014). The Internationalisation of Business R & D. 1st ed. Cheltenham: Edward Elgar Publishing.

Daily Mail. (2015) MPs rage at the 'spineless' Caffe Nero cowards: £1.2billion in sales but company hasn't paid corporation tax since 2007 [online] available from < http://www.dailymail.co.uk/news/article-3110143/MPs-rage-spineless-Caffe-Nero-cowards-1-2billion-sales-company-hasn-t-paid-corporation-tax-2007.html > [1/May/2017]

Dunning, J. H. (2002) Globalization and the theory of MNE activity 1st ed. Cheltenham: Edward Elgar publishing

Euromonitor (2017) Coffee in China [online] available from http://www.euromonitor.com/coffee-in-china/report > [2/May/2017]

Food News International. (2014) Asia Pacific: China's growing urban population, hectic lifestyles pose opportunities for on-the-go, single-serve snacks [online] available from< http://foodnewsinternational.com/2014/08/19/asia-pacificchinas-growing-urban-population-hectic-lifestyles-pose-opportunities-for-on-the-go-single-serve-snacks/ >[28/ April/2017]

International Coffee Organization. (2015) Coffee in China [online] available from http://www.ico.org/documents/ cy2014-15/icc-115-7e-study-china.pdf >[30/April/2017]

Jones, S. M. (2012) *A Comparative Marketing Strategy Analysis Between Starbucks and Caffe Nero* [online] available from < http://ezinearticles.com/?A-Comparative-Marketing-Strategy-Analysis-Between-Starbucks-and-Caffe-Nero&id=7382820>[27/April/2017]

Kubíčková, L., Votoupalová, M., and Toulová, M. (2014) 'Key motives for internationalization process of small and medium-sized enterprises' *Procedia Economics and Finance* 12(1). 319-328

Marketing to China. (2013) *THE COFFEE MARKET IN CHINA* [online] available from < https://www.marketingtochina.com/the-coffee-market-in-china/ > [26/Sep/2018]

Maverick, J, B. (2015) Which economic factors most affect the demand for consumer goods? [online] available from http://www.investopedia.com/ask/answers/042815/which-economic-factors-most-affect-demand-consumer-goods.asp [25/April/2017]

National Bureau of Statistics of China. (2017) *China Statistical Yearbook* [online] available from < http://www.stats.gov. cn/tjsj/ndsj/2017/indexeh.htm > [26/Sep/2018]

Senik, Z., Isa, R., Scott-Ladd, B., and Entrekin, L. (2010). *Influential Factors for SME Internationalization: Evidence from Malaysia*. International Journal of Economics and Management 4(1), 285–304.

Statista. (2015a) World coffee consumption by country in 2015 (in liters per per capita) [online] available fromhttps://www.statista.com/statistics/277135/leading-countries-by-coffee-consumption/ [25/April/2017]

Statista. (2015b) *Total coffee consumption in China from crop year 1994/95 to 2013/14 (in 1,000 bags**)[online] available from < https://www.statista.com/statistics/314948/china-total-coffee-consumption/>[27/April/2017]

Statista. (2016) *Number of Caffè Nero stores in the United Kingdom (UK) from 2011 to 2015* [online] available from https://www.statista.com/statistics/511402/number-of-caffe-nero-stores-united-kingdom-uk/ [26/April/2017]

Statista. (2017a) Leading five coffee shop chains ranked by number of outlets in the United Kingdom (UK) in 2016 [online] available from https://www.statista.com/statistics/297863/leading-coffee-shop-chains-in-the-united-kingdom-uk-store-number/>[28/April/2017]

Statista. (2017b) *Number of Starbucks stores in China from 2005 to 2016* [online] available from < https://www.statista.com/statistics/277795/number-of-starbucks-stores-in-china/> [27/April/2017]

Toften, K. & Hammervoll, T. (2012) 'Niche marketing research: status and challenges' *Marketing Intelligence & Planning*. 31(3).272 - 285

United States Department of Agriculture. (2016) *Coffee: World Markets and Trade* [online] available from < https://apps.fas.usda.gov/psdonline/circulars/coffee.pdf > [1/May/2017]

World Bank. (2016a) *GDP per capita, PPP (current international \$)* [online] available from < http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD >[24/April/2017]

World Economic Forum. (2017) *The world's 10 biggest economies in 2017* [online] available from < https://www.weforum.org/agenda/2017/03/worlds-biggest-economies-in-2017/ >[30/April/2017]



Susanna, Lai-man Chui and Nazha Gali

The Hang Seng University of Hong Kong and University of the District of Columbia

INTRODUCTION

The proposed paper conceptualizes how social value creation is attributed to the prosocial behaviors of shared responsible leadership practiced in the social enterprise context. Responsible leadership, which is considered to be a 'socio-relational construct', is set within the stakeholder theory due to its ethical focus. It stems from social interactions among networks of stakeholders encompassing multiple markets and cultures (Maak & Pless, 2006). As such, responsible leadership undertakes a stakeholder perspective of leadership (Waldman & Galvin, 2008) and centers leadership around ethical principles that drive the relationships between leaders and the stakeholders (Pless, 2007). Responsible leadership that exists within the realm of social enterprises very often involves the pursuit of social or environmental goals, for social good, manifested by collective leadership processes for achieving social and sustainable value creation (Miska & Mendenhall, 2018).

Social entrepreneurship has increasingly gained scholarly attention. Social enterprises or social ventures (Doherty et al., 2014) are commonly considered to be hybrid organizations which explicitly focus on achieving their social mission and strive to create social value while seeking to maintain their viability through profits that are generated in an entrepreneurial and innovative way (Certo & Miller, 2008). These individuals or hybrid organizations are seen as emerging due to governmental voids/failure or the unwillingness of the private sector to address the unmet social challenges. Hence, they are considered as change agents which use a business logic in an entrepreneurial manner to improve the situation of marginalized or excluded segments of populations (Peredo & McLean,

2006). Social entrepreneurship (SE) has been shown to be a powerful tool to eliminate poverty, empower women, result in institutional change, and catalyze social transformation (Saebi et al., 2019). SE involves "the innovative use of resource combinations to pursue opportunities aiming at the creation of organizations and or practices that yield and sustain social benefits" (Mair & Noboa, 2006, p.122). Most of the definitions of SE refer to the behavioral characteristics of entrepreneurs, dual mission of social enterprises (social purpose attainment and financial viability/sustainability), and the entrepreneurial behaviors or activities that lead to social value creation (i.e. social entrepreneurial orientation). SE challenges the notion of conventional entrepreneurship (purely-profit oriented) and aims to address social problems by providing innovative solutions. As such, SE can be considered as an ethical form of entrepreneurial activity, which focuses on attaining its social agenda (Branzei, 2012).

The social value proposition of SE refers to the ability of SE to "create social value by stimulating social change or meeting a social need" (Mair & Marti, 2006, p.37). Thus, the social value proposition of SE, the 'steering axle of SE', represents the intended promise of a venture in providing value for its beneficiaries (Covin et al., 2015). At its essence, it refers to the value that social entrepreneurs aim to provide for a target market (Kraus et al., 2014). The social impact of a social venture relies upon the ability of the venture to provide benefits to its various societal beneficiaries and to adjust its social value proposition to maximize value for its intended targets and the ecosystem.

The social aspect within social entrepreneurship refers to benefits that are societal in nature and that transcend the boundaries of the organization itself. The process of social value creation is a complex multi-level and multi-process that involves the interplay of individualistic institutional change agents, meso-level teams, and organizational level infrastructure, values and artefacts whose outcomes extend to the global community level (Lepak, 2007; Lumpkin et al., 2018). As the proposed paper aims to examine the multi-level leadership process in social entrepreneurship, the contribution presented in this paper is two-fold.

First, we conceptualize a multi-level framework through which responsible leadership with a stakeholder approach can achieve outcomes at the micro, meso, and macro levels and we propose how responsible leadership can lead to social value creation specific to the context of social enterprises. Most management phenomena are multilevel (Klein & Kozlowski, 2000) and successful theorizing necessitates the examination of casual mechanisms within and across different analytical levels; a multi-level framework can facilitate such an integration (Saebi et al., 2019). Second, we extend previous moral identity research by conceptualizing how moral identification at both the individual- and team-levels can lead to collective leadership and collective motivation to lead of multiple stakeholders who attribute to social value creation. This collective moral identification of multiple stakeholders is underpinned by an integrated perspective of prior literature drawn from the social identity model of collective action (SIMCA) and social identity model of organization leadership (SIMOL). Therefore, this paper conceptualizes a multi-level view of responsible leadership that involves moral identification and motivation to lead of teams that attribute to the organizational/community level, in which social value creation is resulted.

Within social enterprises there is an emphasis on the social relationships and the goodwill inherent within social exchange processes, which aim to foster collective action (Adler & Kwon, 2002). Maak and Pless (2006) have emphasized the importance of such social exchanges within their responsible leadership model, since responsible leadership focuses on stakeholder relationships and building a formal stakeholder network. The goodwill inherent within such stakeholder interactions could then be mobilized to create social entrepreneurship (Chung & Gibbons, 1997). Responsible leadership expands the knowledge base within social enterprises by promoting an active stakeholder dialogue, in which different participants engage and contribute their knowledge to solve social problems. Responsible leadership does not only aim at fostering stakeholder dialogue within the organizational boundaries, but also extends to external stakeholders, which promotes exchange of information and the birth of innovative ideas (Voegtlin et al., 2012). Thus, responsible leadership within social enterprises facilitate the engagement of the beneficiaries and they become part of the value creating process (Saebi et al., 2019). The social mission of SE is a key driver for motivating entrepreneurial and prosocial actions and thus entrepreneurial action would

not occur without moral incentives (McMullen, 2011). This kind of motivation at the individual-level is proposed to be a fundamental drive which when aggregated as group-level actions can evolve to become strong moral convictions and entrepreneurial momentum that steer the collective action of social value creation.

COLLECTIVE RESPONSIBLE LEADERSHIP, GROUP DYNAMICS AND SOCIAL IDENTITY THEORIES

We propose that responsible leadership is typically formed by collaborative efforts of multiple actors within social enterprises. Pearce, Wassenaar, and Manz (2014) discussed the interactive and shared influence of actors in exercising leadership in a responsible way as shared leadership. However, their discussion of shared responsible leadership is confined to members of the same organization. Limited literature has covered the underpinning identity dynamics that contribute to the social entrepreneurship of how multiple stakeholders act as a united front for a common goal pursuit.

The social identity approach provides a framework that integrates diverse theories in explaining shared leadership. Social-cognitive, motivational, socialinteractive, and societal level theories work in conjunction to elucidate the relationships between individual and group phenomena (Abrams & Hogg, 2001). The linkage of individual identity to collective identity and motivation involves three aspects: group influence, social identity salience and grouporiented motivation.

Group influence

Each actor within a group membership can create social influence for others. People who are most prototypical that can define the group characteristics become the source of information in influencing or profiling group prototypes and setting group norms. Organizational membership is a typical social schema category that in-group members identify with. Categories are prototypical characteristics in-group members choose to define who they are (Turner, 1985).

Social identity salience

"Identity salience is defined as the probability that one will invoke a specific identity across situations" (Stets & Serpe, 2013, p. 36). Salient identities are considered by the self as central social representations. Intergroup relations are a dominant aspect in forming social identity salience (Tajfel & Turner, 1986). Social attraction and relational dynamics work alongside with attribution and information processing to shape group prototypicality into group behaviors and actions, such as team leadership.

Group-oriented motivation

Social identification and work motivation are closely related as group members who see themselves as one collective are energized by shared experiences in shared events (Ellemers, Gilder, & Haslam, 2004). Moreover, in-group members are situationally motivated as they are challenged by task goals or a shared purpose.

In understanding how group dynamics and social identification can be attributed by the power of group identification in mobilizing individual energy in pursuit of shared purposes, an integrated SIMCA and SIMOL perspective is adopted. SIMCA conceptualizes the psychological basis that arrives at the identification of a relevant group rooted "in the experience of group-based anger and group efficacy beliefs that motivate collective action" (van Zomeren, Postmes, Spears, Bettache, 2011, p. 736). The model was originally conceptualized to characterize the collective action among the disadvantaged (van Zomeren, Postmes, & Spears, 2008). The fundamental interests of the disadvantaged were to challenge social inequality. Related studies supported that moral conviction predicted collective action tendencies as SIMCA was examined (van Zomeren, Postmes, Spears, 2010). Moral convictions as a construct fills the missing link in explaining why social actors participate in collective action in a social movement.

Based on the social identity analyses of leadership (van Knippenberg & Hogg, 2003), SIMOL proposes that as group members identify more strongly with their group and group identification is salient, leadership perceptions, evaluations, and effectiveness are increased in strength. The core characteristic of SIMOL lies in followers' identification with the leader who is perceived as a prototypical leader. Cohesion within a group hinges on leadership endorsement based on group prototypicality (Hogg, Hains & Mason, 1998). Social identity studies showed that the more group members identify with the group's prototype, the more this prototype becomes the determinant of perceived leadership effectiveness (Lord, Foti, & De Vader, 1984). Using the SIMOL lens, it can explain why collective action is turned into dynamic and proactive leadership processes which yield results and meet superordinate goals.

MORAL IDENTITY: A COLLECTIVE PROTOTYPE

Moral identity formation involves a social-cognitive process steered by an individual's cognitive alignment with moral values, goals, traits, and action related scripts (Aquino, Freeman, Reed II, Lim, & Felps, 2009). Life experiences, such as the involvement in volunteering, social campaign or advocacy, can develop moral knowledge which, over time, shapes one's identity, motivation and even actions (Aquino, McFerran & Laven, 2011). Initial experimental evidence has shown that exemplary moral leaders, through the way they treat, trust, inspire and interact with others with uncommon goodness can influence others in driving moral elevation (Aquino, McFerran & Laven, 2011). Such prototypical leaders can create a kind of social contagion

that leads to prosocial motivation and behavior. Therefore, the integrated theorization of social identity theory of leadership and the social contagion of moral identification is considered crucial for understanding responsible leadership. It is because SIMOL suggested that salient group membership creates a self-categorization effect in which individuals conceive themselves in terms of their membership in the group. Therefore, moral identification, when attained by actors who pursue a common goal can drive shared responsible leadership in goal pursuit. These moral practices in social enterprises connect individual, team and collective levels of prosocial motivation and actions to achieve social value creation.

Proposition 1: Moral identity at individual level can influence the team moral identity within a social enterprise.

Proposition 2: Moral identity at the team level can lead to team leadership identification within a social enterprise.

PROSOCIAL MOTIVATION AND MOTIVATION TO LEAD AT INDIVIDUAL, TEAM AND ORGANIZATIONAL LEVELS

Prosocial motivation

Grant (2008) described prosocial motivation as the desire to put effort into bringing benefit or social good to other people. Individuals with strong benevolence values are expected to perform prosocial behaviors for familiar beneficiaries (Grant & Berg, 2010). Moreover, individuals who are high in moral identity internalization can be induced to perform prosocial acts (Winterich, Aquino,

Mittal, & Swartz, 2013). Hence, these prosocial acts can form a recursive effect on one's moral identity. One of these prosocial behaviors can be collective proactive leading behaviors driven by the common pursuit of a purposeful goal which form an integral part of social enterprises. Thus, this collective pursuit can stimulate collective motivation to lead.

Proposition 3: Moral identity at the individual level has a recursive relationship with individual prosocial motivation within a social enterprise.

Proposition 4: Individual prosocial motivation can moderate the relationship between team moral identity and team leadership identification within a social enterprise.

Motivation to lead

Chan and Drasgow (2001) put forward a motivation to lead (MTL) construct that affects a "leader's or leader-to-be's decisions to assume leadership responsibilities and that affect his or her intensity of effort at leading and persistence as a leader" (p. 482). The MTL construct has three dimensions—affective identity, plus non-calculative and social normative dimensions—that vary across respondents. The 'affective' dimension captures the motivation of individuals who inherently like to lead others. The 'non-calculative' dimension

refers to leading without being calculative of the costs over the benefits obtained from the leading process. The 'social-normative' dimension refers to the sense of duty or responsibility behind the motive of leading. Hence, the last dimension is adopted in the conceptual model of this paper as the moral conviction of actors involved in social entrepreneurship is not directed for self-interest but borne from a sense of duty.

Proposition 5: Team leadership can lead to team motivation to lead within a social enterprise and can mediate the relationship between team moral identification and motivation to lead.

The discussion above indicated that collective identification and motivational processes reflect "emergent phenomena", which originate in individual-level cognitions and behaviors and aggregate to form meaningful collective constructs (Kozlowski & Klein, 2000). The emergent nature of collective moral identification means that moral identification at team-

level is likely to be related to prosocial action of leading. That is, individual-level and team-level adaptive performance and moral identification exist in an open social system, in which individual motivation and behaviors influence the emergence of shared (or collective) cognitions and behaviors.

The interconnectedness of individual-level and team-level moral identification and motivation to lead in collective action means that antecedents affecting individual engagement in team adaptive actions emerge to influence collective adaptive task enactment and collective moral identification. To date, there has been very little attempt to examine

multilevel models of social entrepreneurship. Accordingly, we posit that a multilevel perspective is needed to better understand how collective identification evolve as a function of individual-, team- and organizational-level influences to result in the collective action of social value creation.

Proposition 6: Team motivation to lead can lead to social value creation at the organizational or community level.

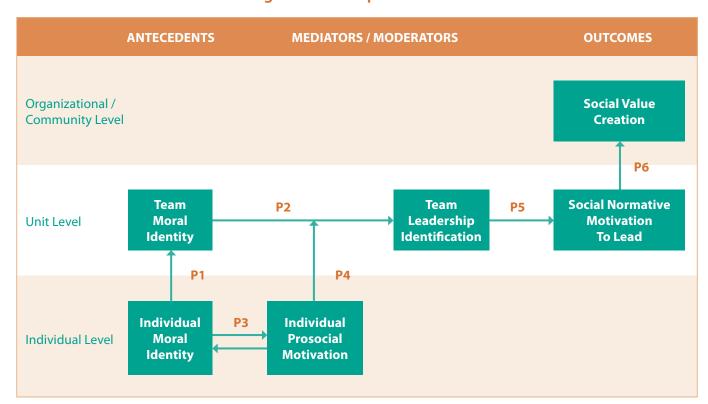


Figure 1. Conceptual Model

Note: P stands for Proposition

This article has advanced a model of responsible leadership that reveals how moral identity across individual- and team-levels can transcend to the organizational level and lead to social value creation within social enterprises. To help address the gaps in the responsible leadership and SE literature, we

have developed a multi-level framework. Yet, this framework also goes a long way to identifying many of the cross-level linkages or temporal effects and contingencies that influence the responsible leadership and SE processes.

References

Abrams, D., & Hogg, M. A. (2001). Collective identity: Group membership and self-conception. In M. A. Hogg & R. S. Tindale, (Eds), Blackwell handbook of social psychology: Group processes. Oxford, English: Blackwell.

Adler, P. S., & Kwon, S. W. (2002). Social capital: Prospects for a new concept. Academy of Management Review, 27(1), 17-40.

Aquino, K., McFerran, B., Laven, M. (2011). Moral identity and the experience of moral elevation in response to acts of uncommon goodness. Personality processes and individual differences, 100(4), 703-718.

Aquino, K., Freeman, D., Reed II, A., Lim, V. K. G., Felps, W. (2009). Testing a social-cognitive model of moral behaviour: The interactive influence of situations and moral identity. Journal of Personality and Social Psychology, 97(1), 123-141.

Branzei, O. (2012). Social change agency under adversity: How relational processes (re) produce hope in hopeless settings. In Using a Positive Lens to Explore Social Change and Organizations (pp. 45-71). Routledge.

Certo, S.T., & Miller, T. (2008). Social entrepreneurship: Key issues and concepts. Business horizons, 51(4), 267-271.

Chan, K. Y., & Drasgow, F. (2001). Toward a theory of individual differences and leadership: Understanding the motivation to lead. Journal of Applied Psychology, 86(3), 481–498.

Chung, L. H., & Gibbons, P. T. (1997). Corporate entrepreneurship: The roles of ideology and social capital. Group & Organization Management, 22(1), 10-30.

Covin, J. G., Garrett Jr, R. P., Kuratko, D. F., & Shepherd, D. A. (2015). Value proposition evolution and the performance of internal corporate ventures. *Journal of Business Venturing*, 30(5), 749-774.

Doherty, B., Haugh, H., & Lyon, F. (2014). Social enterprises as hybrid organizations: A review and research agenda. International Journal of Management Reviews, 16(4), 417-436.

Ellemers, N., Gilder, D. D., & Haslam, S. A. (2004). Motivating individuals and groups at work: A social identity perspective on leadership and group performance. Academy of Management Review, 29(3), 459–479.

Grant, A. M., & Ashford, S. J. (2008). The dynamics of proactivity at work. Research in Organizational Behavior, 28, 3-34.

Grant, A. M., & Berg, J. M. (2010). Prosocial motivation at work: How making a difference makes a difference. Forthcoming in K. Cameron and G. Spreitzer (Eds.), Handbook of Positive Organizational Scholarship. Oxford University Press.

Hogg, M. A., Hain, S. C., & Mason, I. (1998). Identification and leadership in small groups: Salience, frame of reference, and leader stereotypicality effects on leader evaluations. *Journal of Personality and Social Psychology*, 75(5), 1248-1263.

Klein, K. J., & Kozlowski, S. J. W. (2000). Multi-level theory, research, and methods in organizations. New York: Wiley.

Kraus, S., Filser, M., O'Dwyer, M., & Shaw, E. (2014). Social entrepreneurship: an exploratory citation analysis. Review of Managerial Science, 8(2), 275-292.

Lepak, D. P., Smith, K. G., & Taylor, M. S. (2007). Value creation and value capture: a multilevel perspective. Academy of management review, 32(1), 180-194.

Lord, R. G., Foti, R. J., De Vader, C. (1984). A test of leadership categorization theory: Internal structure, information processing, and leadership perception. Organizational Behavior and Human Performance, 34(3), 343-378.

Lumpkin, G. T., Bacq, S., & Pidduck, R. J. (2018). Where change happens: community-level phenomena in social entrepreneurship research. Journal of Small Business Management, 56(1), 24-50.

Maak, T. (2007). Responsible leadership, stakeholder engagement, and the emergence of social capital. Journal of Business Ethics, 74(4), 329-343.

Maak, T., & Pless, N. M. (2006). Responsible leadership in a stakeholder society-a relational perspective. Journal of business ethics, 66(1), 99-115.

Mair, J., & Marti, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of world business*, 41(1), 36-44.

Mair, J., & Noboa, E. (2006). Social entrepreneurship: How intentions to create a social venture are formed. *In Social entrepreneurship* (pp. 121-135). Palgrave Macmillan, London.

McMullen, J. S. (2011). Delineating the domain of development entrepreneurship: A market–based approach to facilitating inclusive economic growth. *Entrepreneurship Theory and Practice*, 35(1), 185-215.

Miska, C., & Mendenhall, M. E. (2018). Responsible leadership: A mapping of extant research and future directions. *Journal of Business Ethics*, 148(1), 117-134.

Pearce, C. I., Wassenaar, C. L., & Manz, C. C. 2014. Is shared leadership the key to responsible leadership? *The Academy of Management Perspective*, 28(3), 275-288.

Peredo, A. M., & McLean, M. (2006). Social entrepreneurship: A critical review of the concept. *Journal of world business*, 41(1), 56-65.

Pless, N. M. (2007). Understanding responsible leadership: Role identity and motivational drivers. *Journal of Business Ethics*, 74(4), 437-456.

Saebi, T., Foss, N. J., & Linder, S. (2019). Social entrepreneurship research: Past achievements and future promises. *Journal of Management*, 45(1), 70-95.

Stets, J. E., & Serpe, R. T. (2013). Identity theory. In J. DeLamater & A. Ward (Eds.), *Handbook of social psychology* (pp.31-60). New York, NY: Springer.

Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behaviour. In S. Worchel & W. G. Austin (Eds.), *The psychology of intergroup relations*. Chicago: Nelson-Hall.

Van Zomeren, M., Postmes, T., & Spears, R. (2011). Can moral convictions motivate the advantaged to challenge social inequality?: Extending the social identity model of collective action. *Journal of Group Processes & Intergroup Relations*. https://doi.org/10.1177/1368430210395637

Van Zomeren, M., Postmes, T., & Spears, R. (2008). Toward an integrative social identity model of collective action: A quantitative research synthesis of three socio-psychological perspectives. *Psychological Bulletin*, 134(4), 504-535.

Van Zomeren, M., Postmes, T., & Spears, R. (2010). On conviction's collective consequences: Integrating moral conviction with the social identity model of collective action. *British Journal of Social Psychology*, 51, 52-71.

Van Knippenberg, D. & Hogg, M. A. (2003). A social identity model of leadership effectiveness in organizations. *Research in Organizational Behavior*, 25, 243-295.

Voegtlin, C., Patzer, M., & Scherer, A. G. (2012). Responsible leadership in global business: A new approach to leadership and its multi-level outcomes. *Journal of Business Ethics*, 105(1), 1-16.

Waldman, D. A., & Galvin, B. M. (2008). Alternative perspectives of responsible leadership. *Organizational Dynamics*, 37(4), 327-341.

Winterich, K. P., Aquino, K., Mittal, V., & Swartz, R. (2013). When moral identity symbolization motivates prosocial behavior: The role of recognition and moral identity internalization. *Journal of Applied Psychology*, 98(5), 759-770.

Zahra, S. A., Gedajlovic, E., Neubaum, D. O., & Shulman, J. M. (2009). A typology of social entrepreneurs: Motives, search processes and ethical challenges. *Journal of Business Venturing*, 24, 519-532.



Noel, Yuen-shan Wong, Kin-kit Li and Pingping Fu

The Hang Seng University of Hong Kong, City University of Hong Kong and Nottingham University Business School China

SOCIAL EXCHANGE RELATIONSHIP IN THE WORKPLACE

Social exchange theory is a well-established theory which describes the relationship between different parties in the society. According to social exchange theory, "people should help those who have helped them" (Gouldner, 1960, p. 171). If someone receive favor from others, they would act (e.g., offering help or caring) in order to return to the person. This norm of reciprocity is presence in the workplace. Employees have exchange relationships with the organization, supervisor, and the team (Cole, Schaninger Jr., & Harris, 143, 2002). It is suggested that employees who believed that they are valued and cared for by organizations are more likely to reciprocate by performing well in their daily work (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001).

However, the reciprocal relationship does not always hold in the workplace. In his book, Give and take, Grant (2014) explained that some people tend to help others without considering their own benefits but some others try to get as much as they can. In research studies, the relationship between perceived support received from organization and work performance has not been consistently supported. Some studies showed a positive relationship between perceived support and performance and others reported non-significant correlations (e.g., Wayne, Shore, & Liden, 1997). Therefore, an investigation on what factors influence the organizational support-performance relationship is critical. Based on this observation, we conducted a study to explore what types of employees are more likely to reciprocate to the support offered by the employer.

We believe that employees' individual characteristics may help explain the mixed findings. For instance, the impact of POS on absenteeism was stronger for employees with higher exchange ideology than those with lower exchange ideology (Eisenberger, Huntington, Hutchison,

& Sowa, 1986). However, research examining the roles of individual factors in this area is limited. Drawing on a tripartite model of self-concept (Brewer & Gardner, 1996; Johnson, Selenta, & Lord, 2006), we propose that how an employee defines him/herself is an determining factor in the exchange relationship. More specifically, we posited that employees' levels of self-concept, i.e., individual, relational, and collective (Brewer & Gardner, 1996), influence

the types of exchange motivation (e.g., pay and benefits versus socio-emotional resources) of the employees and subsequently guide their reactions toward the amount of perceived organizational support (POS) and perceived supervisor support (PSS) received. By integrating social exchange theory and the tripartite model of self-concept, the reciprocating behaviors may be better explained.

Social Exchange and Perceived Support

In the management literature, exchange relationship conceptualizes the relationship between employers and employees (Shore & Barksdale, 1998). Different types of resources may be exchanged in the relationship. Economic exchange denotes the exchange of financial and tangible resources, whereas social exchange refers to the exchange of resources which fulfill social and emotional needs (Shore, Tetrick, Lynch, & Barksdale, 2006). Besides, social exchange involves trust and investment in the relationship while economic exchange does not. POS is conceptualized as the employers' input in the social exchange as caring about the employees and valuing their contributions are not prescribed in the employment contract (Shore et al., 2006). Thus, POS is predicted to be positively related to employee performance according to social exchange theory.

However, a meta-analysis reported that the effect sizes of the POS-performance relationship were .18 and .26 for in-role and extra-role performance, respectively (Riggle,

Edmondson, & Hansen, 2009). Some reported studies found moderate effect sizes for the POS-performance relationship (e.g., Eisenberger, Fasolo, & Davis-LaMastro, 1990; Wayne et al., 1997); others, however, did not find significant effects (e.g., Cleveland & Shore, 1992; Settoon, Bennett, & Liden, 1996). Collectively, the POS-performance relationship is considered modest with a considerable variability. Therefore, researchers have investigated potential moderators in this relationship.

Besides POS, PSS, is generally treated as a type of support from the organization because supervisors are regarded as agents of the organization (Rhoades & Eisenberger, 2002). However, results of empirical studies on the relations between POS and PSS have not been very consistent. The previous findings suggested that POS and PSS may have both shared and unique effects. In the present study, we include both types of support received in the workplace.

Tripartite Model of Self-concept

Self-concept is the organized collection of information (e.g., beliefs and thoughts) about oneself (Markus & Wurf, 1987), which affects one's social interaction and information processing (Brewer, 1991; Markus & Wurf, 1987). In a tripartite model of self-concept (Brewer & Gardner, 1996; Johnson et al., 2006), self-representation comprises information at the individual, relational, and collective levels. Built on one's uniqueness and developed by comparison with others, the individual self-concept drives people to strive for their self-interest and success. The relational self-concept focuses on one's relationship with others. It motivates people to emphasize other's benefits. Finally, the

collective level involves defining the self with a group, and thus the main motive is the welfare of the group.

Information congruent with the level of self-concept is more salient and influential (Selenta, Lord, & Brown, 2004). For instance, Johnson and colleagues (2006) showed that a high relational self-concept strengthened the effect of interactional justice on dyad-referenced outcomes such as supervisor satisfaction, whereas an activated collective self-concept strengthened the effects of procedural justice on system-referenced work outcomes (e.g., company satisfaction and POS). Johnson and Chang (2008) found that

a primed collective self-concept strengthened the effects of POS and procedural justice on affective organizational commitment.

Based on the level-specific effects of self-concepts mentioned above, level-specific factors are advised to be

included when examining the tripartite model of self-concept. POS and PSS are considered congruent with the collective and relational self-concepts, respectively. Thus, the effects of POS and PSS may become salient when different self-concepts or profiles of self-concept become dominant.

Interplay between Tripartite Model of Self-concept and Reciprocity

As mentioned above, the expectations for the types of exchange resources (i.e., economic or socio-emotional) may guide the employees' reactions to POS. It is hypothesized that employees' self-concept would be related to the type of exchange resources that they expect in the employment. Employees of a strong individual self-concept are concerned about their rights and entitlements (Bresnahan, Chiu, & Levine, 2004). These employees are motivated by fulfilling their self-interest, usually with extrinsic rewards such as pay and benefits, which are visible means for comparison with others (Johnson & Chang, 2006). Being valued and cared for may not be the right resources to satisfy their needs for differentiation. These employees may even take advantage of the supportive environment to maximize their gains (e.g., get more benefits with less effort).

In contrast, employees with strong relational and collective self-concepts are concerned about the mutual benefits in dyadic relationships and collective welfare of the group (Brewer & Gardner, 1996). A supportive environment

would satisfy their needs for socio-emotional support and acceptance. As they tend to highly identify with the organization, they may expect the organization to care about their well-being in return. With high POS, they may tend to feel the social obligations to reciprocate. Otherwise, it may violate their expectation of what the organization should offer, thus, hindering their work performance.

Therefore, reciprocity may be commonly adopted among employees with a weak individual self-concepts and strong relational and collective self-concepts. For employees with a strong individual self-concept and weak relational and collective self-concepts, however, their performance is more likely to be driven by means of economic exchange (i.e., materialistic rewards). Hence, situational factors such as whether and how their work is oversight and evaluated may govern their job performance. In other words, employee performance may depend on whether they can take advantage of the situations for maximal gains.

The Present Study

Using a person-centered approach, this study identified the typical groups of employees indicated by POS, PSS, levels of self-concept, job performance and organizational citizenship behaviors (OCB). A person-centered approach aims to identify the unobserved subtypes of individuals who share similar characteristics (Magnusson, 1998, 2003). The interactions among POS, PSS, and levels of self-concept were explored by examining the differences across the subtypes. We expected that results would support that the norm of reciprocity would only be held in some profiles.

Specifically, we expected that reciprocity would be held among employees with relatively salient relational and collective self-concepts. That is, the positive relationship between perceived support and performance will be observed among individuals with high relational and collective self-concepts. On the other hand, reciprocity would be less likely among those individuals with a relatively salient individual self-concept such that the perceived support reported will be separated from the level of performance.

METHODS

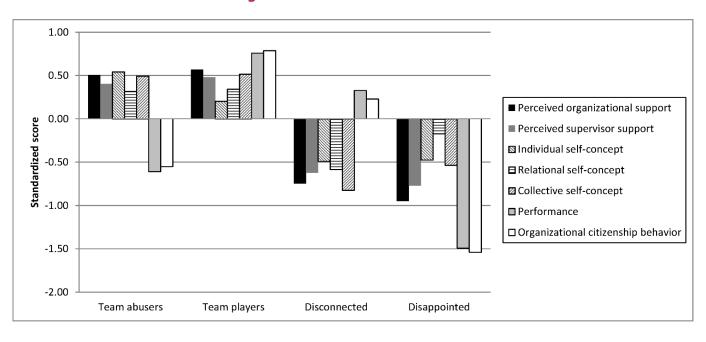
We collected data from an international insurance company in Hong Kong and the sample included agents and supervisors. Agents rated their POS, PSS, and self-concepts while supervisors rated the job performance and OCB of their subordinates. Valid responses were received from 430 agents and 132 supervisors, with response rates of 70% and 84%, respectively. The supervisors rated the performance of 526 agents. We conducted treatment of missing data, the final sample included 534 agents (56% being female) with an average age of 39.11.

Measures of all variables are listed in Table. 1.

Table 1. Measures of variables

	Variable	Scale and source	Number of items
1	Perceived organizational support	Survey of Perceived Organizational Support (Eisenberger, Cummings, Armeli, & Lynch, 1997)	8
2	Perceived supervisor support	Survey of Perceived Supervisory Support (Kottke & Sharafinski, 1988)	16
3	Levels of self-concept	Levels of Self-Concept Scale	15
4	Job Performance	Scale developed by Williams (1988)	5
5	Organizational citizenship behavior	Adopted from Podsakoff, MacKenzie, Moorman, and Fetter's (1990) scale	23

Figure 1. Profile characteristics



ANALYSES AND RESULTS

The number of profiles, profile characteristics, and the effects of the profile membership on performance and OCB were

examined by a multilevel latent profile analysis (Henry & Muthén, 2010).

Model specification and selection of LPA solution

Latent class membership was represented by a latent categorical variable, consisting of five indicator variables – POS, PSS, and the three levels of self-concept. Starting from a single-class solution, a series of fixed effects LPA models with increasing numbers of classes was computed.

Considering the model fit indexes from the solutions of fixed-effect LPA models, the four-class solution was deemed the most appropriate for the data. Based on the estimated class means of the latent class indicators of the selected model, the four classes were labelled as the team players, team abusers, disconnected, and disappointed employees. Using the posterior class probabilities, the proportions of employees in these four classes were about 35%, 23%, 28%, and 14%, respectively.

As the labels suggested, employees in the team abusers and the team players subgroups were characterized as having the perception that the work environment was highly supportive ($M_{POS} = 0.57$ and 0.51, p < .001; and $M_{PSS} = 0.48$ and 0.40, p < .001 for the team players and team abusers, respectively). As shown in Figure 1, the individual self-concept for the team abusers ($M_{Individual}$ self-concept = 0.54, p = .001) seemed

relatively higher than that for the team players (Mindividual self-concept = 0.20, p = .02). The performance and OCB of the team abusers were below average (Mperformance = -0.61, p < .001; MOCB = -0.55, p < .001), whereas the team players had the best performance and the highest OCB among the four classes (Mperformance = 0.76, p < .001; MOCB = 0.79, p < .001).

Both employees in the disconnected and disappointed subgroups were those who perceived an unsupportive work environment ($M_{POS} = -0.75$ and -0.95, p < .001; and $M_{PSS} = -0.62$ and -0.77, p < .001 for the disconnected and disappointed, respectively). As shown in Figure 1, the relational and collective self-concepts seemed relatively lower for the disconnected ($M_{PSS} = -0.59$, p < .001; $M_{COllective} = -0.59$, p < .001; $M_{COllective} = -0.59$, p < .001) compared with those of the disappointed ($M_{PSS} = -0.54$, p = .02). The performance and OCB were above average for the disconnected ($M_{PSS} = 0.23$, p = .02), whereas the disappointed had the worst performance and the lowest level of OCB among the profiles ($M_{PSS} = -1.49$, p < .001; $M_{OCB} = -1.54$, p < .001).

Post-hoc Analyses

The differences in some of the indicators across classes were small. For better identification and interpretation of the differences across classes, post-hoc analyses were conducted to test the equality of those estimated means across classes. Based on the final model, an equality constraint was applied to a particular pair of estimated means between two classes, one at a time. A Wald test was used to examine whether applying an equality constraint on the final model significantly worsened its model fit.

Between the team players and team abusers, differences in each of the estimated means of POS, PSS, and individual

self-concept were examined. No significant differences in these indicators were found between these two classes (Wald test values = 0.14, p = .71; 0.30, p = .58; and 2.55, p = .11, respectively). However, the difference in individual self-concept approached a statistically significant level. The estimated means of POS, PSS, and relational and collective self-concepts were also compared between the disconnected and disappointed. No differences were found in POS (Wald test value = 0.77, p = .38), PSS (Wald test value = 0.42, p = .51), and collective self-concept (Wald test value = 0.97, p = .32). The only significant difference was found in relational self-concept (Wald test value = 4.30, p = .04).

IMPLICATIONS

Results showed that reciprocity was reflected among team players and disappointed employees, which amounted to around 50% of the participants. The results provided support to our proposition that the POS-performance relationship

is dependent on self-concepts. By comparing the two profiles with high POS and the two profiles with low POS, the influences of self-concepts on performance can be more clearly demonstrated.

Comparing the team players and team abusers

Among the employees who reported high POS, their group membership might be in part determined by their individual self-concept. Although their individual self-concept was generally strong, the team players employees who showed relatively weaker individual self-concept were more likely to show better performance than the team abusers who reported relatively stronger individual self-concept. The current sample size, however, was not large enough to detect such small effect. On the other hand, relational and collective self-concepts did not differentiate these two groups.

Comparing the disconnected and disappointed

As both subgroups of agents reported low POS, they should show low job performance. Contrary to predictions from social exchange theory, agents who reported low POS could be separated into two groups. The performance of the disconnected was above average, while the disappointed employees performed the worst. The performance difference may be attributed to the difference in the agents' expectations. Indicated by their relatively stronger relational self-concept, the low-performance agents are more likely to care about others and identify themselves with others than the high-performance agents. Thus, they may expect the other party to reciprocate. If these individuals do not receive their expected care, they may not act in the interest of the other party anymore. Although the relational self-concept for the disappointed employees was relatively stronger than that of the disconnected, the level was still below average. It might suggest a vicious cycle in which their relational self-concept might be dampened by the low POS and PSS. On the other hand, the disconnected exhibited the lowest relational self-concepts. These individuals are least likely

to define themselves using relationships. Moreover, the socio-emotional needs of the disconnected may be limited. Without the expectations of reciprocity and low socio-emotional needs, their performance would be unaffected by the low POS.

The findings provide two main suggestions. First, reciprocity could not be assumed in the workplace and managers should motivate employees with different self-concepts using different tactics. Managers should emphasize the respect, approval, and caring that the organization has on employees, especially to those with a weak individual self-concept and strong relational and collective self-concepts. The disappointed employees may gradually become the team players when their socio-emotional needs are fulfilled. Second, in organizations that consistently recognize employees' contributions and care for employees, beneficial effects could be strengthened by downplaying the individual self-concept. This could be done by highlighting collective success instead of individual achievement.

References

Bresnahan, M. J., Chiu, H. C., & Levine, T. R. (2004). Self-construal as a predictor of communal and exchange orientation in Taiwan and the USA. Asian Journal of Social Psychology, 7(2), 187-203. doi:10.1111/j.1467-839x.2004.00144.x

Brewer, M. B. (1991). The social self: On being the same and different at the same time. Personality and Social Psychology Bulletin, 17(5), 475-482. doi:10.1177/0146167291175001

Brewer, M. B., & Gardner, W. L. (1996). Who is this "we"? Levels of collective identity and self representations. Journal of Personality and Social Psychology, 71, 83-93. doi:10.1037/0022-3514.71.1.83

Cleveland, J. N., & Shore, L. M. (1992). Self- and supervisory perspectives on age and work attitudes and performance. Journal of Applied Psychology, 77(4), 469-484. doi:10.1037/0021-9010.77.4.469

Cole, M. S., Schaninger Jr., W. S., & Harris, S. G. (143). The Workplace Social Exchange Network. Group & Organization Mangement, 27(1), 142-167.

Cole, M. S., Schaninger Jr., W. S., & Harris, S. G. (2002). The Workplace Social Exchange Network. Group & Organization Mangement, 27(1), 142-167.

Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. Journal of Applied Psychology, 86(1), 42-51. doi:10.1037/0021-9010.86.1.42

Eisenberger, R., Cummings, J., Armeli, S., & Lynch, P. (1997). Perceived organizational support, discretionary treatment, and job satisfaction. Journal of Applied Psychology, 82(5), 812-820. doi:10.1037/0021-9010.82.5.812

Eisenberger, R., Fasolo, P., & Davis-LaMastro, V. (1990). Perceived organizational support and employee diligence, commitment and innovation. Journal of Applied Psychology, 75(1), 51-59. doi:10.1037/0021-9010.75.1.51

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. Journal of Applied Psychology, 71(3), 500-507.

Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. American Sociological Review, 25(2), 161-178.

Grant, A. (2014). Give and Take: Penguin Books.

Henry, K. L., & Muthén, B. (2010). Multilevel latent class analysis: An application of adolescent smoking typologies with individual and contextual predictors. Structural Equation Modeling: A Multidisciplinary Journal, 17(2), 193-215. doi:10.1080/10705511003659342

Johnson, R. E., & Chang, C.-H. (2006). "I" is to continuance as "We" is to affective: The relevance of the self-concept for organizational commitment. Journal of Organizational Behavior, 27, 549-570. doi:10.1002/job.364

Johnson, R. E., & Chang, C.-H. (2008). Relationships between organizational commitment and its antecedents: Employee self-concept matters. Journal of Applied Social Psychology, 38(2), 513-541. doi:10.1111/j.1559-1816.2008.00315.x

Johnson, R. E., Selenta, C., & Lord, R. G. (2006). When organizational justice and the self-concept meet: Consequences for the organization and its members. Organizational Behavior and Human Decision Processes, 99(2), 175-201. doi:10.1016/j.obhdp.2005.07.005

Kottke, J. L., & Sharafinski, C. E. (1988). Measuring perceived supervisory and organizational support. Educational and Psychological Measurement, 48(4), 1075-1079. doi:10.1177/0013164488484024

Magnusson, D. (1998). The logic and implications of a person-oriented approach. In R. B. Cairns, L. R. Bergman, & J. Kagan (Eds.), Methods and models for studying the individual (pp. 33-64). Thousand Oaks, CA: Sage.

Magnusson, D. (2003). The person approach: Concepts, measurement models, and research strategy. In S. C. Peck & R. W. Roeser (Eds.), *New directions for Child and Adolescent development. Person-centered approaches to studying development in context, No. 101* (pp. 3-23). San Francisco, CA: Jossey-Bass.

Markus, H., & Wurf, E. (1987). The dynamic self-concept: A social psychological perspective. *Annual Review of Psychology*, 38, 299-337. doi:10.1146/annurev.ps.38.020187.001503

Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly*, 1(2), 107-142. doi:10.1016/1048-9843(90)90009-7

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87(4), 698-714. doi:10.1037/0021-9010.87.4.698

Riggle, R. J., Edmondson, D. R., & Hansen, J. D. (2009). A meta-analysis of the relationship between perceived organizational support and job outcomes: 20 years of research. *Journal of Business Research*, 62(10), 1027-1030. doi:http://dx.doi.org/10.1016/j.jbusres.2008.05.003

Selenta, C., & Lord, R. G. (2005). Development of the levels of self-concept scale: Measuring the individual, relational, and collective levels. *Unpublished manuscript*.

Selenta, C., Lord, R. G., & Brown, D. J. (2004). Leadership and organizational justice. In R. G. Lord & D. J. Brown (Eds.), *Leadership processes and follower self-identity* (pp. 155-184). Mahwah, NJ: Lawrence Erlbaum.

Settoon, R. P., Bennett, N., & Liden, R. C. (1996). Social exchange in organizations: Perceived organizational support, leader-member exchange, and employee reciprocity. *Journal of Applied Psychology*, 81(3), 219-227. doi:10.1037/0021-9010.81.3.219

Shore, L. M., & Barksdale, K. (1998). Examining degree of balance and level of obligation in the employment relationship: A social exchange approach. *Journal of organizational behavior*, 19(s1), 731-744.

Shore, L. M., Tetrick, L. E., Lynch, P., & Barksdale, K. (2006). Social and economic exchange: Construct development and validation. *Journal of Applied Social Psychology*, 36(4), 837-867.

Wayne, S. J., Shore, L. M., & Liden, R. C. (1997). Perceived organizational support and leader-member exchange: A social exchange perspective. *The Academy of Management Journal*, 40(1), 82-111. doi:10.2307/257021

Williams, L. J. (1988). Affective and nonaffective components of job satisfaction and organizational commitment as determinants of organizational citizenship and in-role behaviors. Unpublished doctoral dissertation, Indiana University, Bloomington.



Tony, Chun-kwong Koo¹, Gaston Fornes², Camelia Ilie³, Guillermo Cardoza⁴, Abel Monfort⁵, and Maria Altamira⁶ The Hang Seng University of Hong Kong¹, University of Bristol and EAE Business School², INCAE Business School³, and ESIC Business & Marketing School⁵⁶

INTRODUCTION AND FRAMEWORK

The world is experiencing a period of unprecedented scientific progress along with major economic, political and social transformations. The emergence of exponential technologies, based on increasing computing capacities, is bringing promises of solutions to critical challenges in health, education, and environment. Genetic engineering, artificial intelligence, robotics, 3D-printing, nanotechnology, and synthetic biotechnology among other technologies are rapidly reshaping most industries and introducing disruptions in business models (Ilie et al., 2017).

However, the benefits from these technologies are not being enjoyed by all countries equally neither by their different social strata (Schwab, 2015). Economic and social inequalities have created barriers for people, in particular women, to profit from technological advance. Even considering the major progress women have made during

the last two decades, the gaps are proving resilient "not only between women and men but also among women themselves". [To reduce this gap] "women's economic empowerment must be placed at the centre ... to build economies that are not only more prosperous and resilient but also more equitable" (UN, 2017: p. 10). In this context, one of the main challenges of companies, governments, and policy makers should be the creation of favourable conditions for the incorporation of women to the increasingly evolving international network of production and service systems.

In fact, this challenge is part of the 2030 Agenda for Sustainable Development. A plan of action for governments, civil society, and companies, aimed at ending poverty and inequalities worldwide (UN, 2015) by adopting a set of Sustainable Developing Goals (SDG) targeting

different fields. Specifically, "achieving gender equality and empower all women and girls" is the SDG 5 and involves that institutions should ensure "women's full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic, and public life" (UNWomen, 2015).

In entrepreneurship, the gender gap is commonly defined as the difference between men and women in terms of numbers engaged in entrepreneurial activity, motives to start or run a business, industry choice and business performance and growth (Vossenberg, 2013). Empirical evidence shows that in the vast majority of countries, the total entrepreneurial activity (TEA) rate is lower for women (Kelley et al., 2016) in comparison with men, this may suggest that an important part of the female talent pool is untapped. As a consequence, the identification of factors associated with the gender gap is key to guide public policy and investment decisions. This has been extensively studied for developed countries (Afandi & Kermani, 2014; Bönte & Piegeler, 2013; Caliendo et al., 2014; Fairlie & Robb, 2007) but to a lesser extent in emerging economies.

In these emerging economies and because of the disadvantages and discrimination in education and in the labour market, it can be thought that women most often do not have the same entrepreneurial experience as men. However, research shows that female entrepreneurship is usually higher in developing than in developed countries (Minniti et al., 2005) because in the former there are bigger barriers for women to enter the labour market; then women need to choose entrepreneurship as a suitable and viable way to make a living (Minniti & Naudé, 2010).

In this line, previous research (Fairlie & Meyer, 1996; Fairlie & Robb, 2007; Van der Zwan et al., 2012) has shown that children of self-employed parents have higher TEA rates than those of non-business owners as these children received an early learning of entrepreneurial competencies (mainly general managerial skills and business information) (Fairlie & Robb, 2007). In fact, being exposed to parental entrepreneurial activity, work satisfaction, risk tolerance, and income are linked to an increased probability of self-employment (Bernat et al., 2017).

For example, in Latin America and the Caribbean the Global

Entrepreneurship Monitor survey showed that the overall levels of entrepreneurship (measured as TEA rates) at 15% for females and 19% for males are significantly higher in comparison to those in European developed countries, 5% and 9% respectively, and to those in the USA, 10% and 15% respectively (Kelley et al., 2013). Latin America is a region made up of multiple types of countries and market structures where labour market conditions and institutions are behind that of developed countries (Bernat et al., 2017); in such markets the explanation for a relatively higher TEA may lay on a particular familiar and cultural context along with a business environment that seems to promote the interest in searching opportunities and, therefore, in entrepreneurship for women (Luke & Munshi, 2011).

In addition, institutional and contextual variables are significant determinants of entrepreneurial activity. Afandi and Kermani (2014), for example, found a relation between gross domestic product per capita, female labour participation, maternal mortality ratio, and indicators of law and order (formal institutions) and the level of female entrepreneurship activity. Also, poor government policies encouraging the development of female entrepreneurship, laws, and services have been identified as a barrier for women entrepreneurs (Jamali, 2009). Most research indicates that regulations, taxation, and legal barriers can pose serious obstacles for running and starting a business (Vossenberg, 2013).

Other research works point out that normative restrictions and social attitudes based on cultural and religious beliefs in some circumstances (i.e. socially accepted informal institutions) are not helpful to the work of women in general or that of female entrepreneurship (Baughn et al., 2006; Jamali, 2009). In fact, in several places, entrepreneurship is perceived as an appropriate career choice for men or for the poor and not the educated (which commonly are women). These perceptions are justified in the link between entrepreneurship and male stereotypes (Aidis et al., 2007; Bird & Brush, 2002).

In addition, research findings are not conclusive and empirical evidence is mixed on why the gender gap in entrepreneurship is bigger in certain regions or countries (Minniti & Naudé, 2010). For example, in China it has been found that the local legal environment has

a significantly positive effect on small firms product innovation, technological innovation, process innovation and management innovation (Jiao et al., 2015). The growth of these companies is based on private capabilities (rather than on the support from the government) and also the perceived barriers for their expansion are mainly internal rather than environmental (Cardoza et al., 2016; Cardoza et al., 2015). Nevertheless, as stated above, in the vast majority of countries the TEA is still lower for women than for men (Kelley et al., 2016) and also the largest gaps between women and men are found in Economic Participation & Opportunity and in Political Empowerment, at 41% and 73%¹ respectively[In comparison, global gender parity has almost been achieved in Educational Attainment and in Health & Survival with gaps of just 5% and 4%, respectively (World Economic Forum, 2018).] (World Economic Forum, 2018).

POVERTY PUSH VERSUS OPPORTUNITY PULL

As mentioned above, entrepreneurship in emerging countries can be a suitable route for the development of women. Entrepreneurship has the power to transform markets, industries, communities, families, and individuals, (Yunus, 2005) and also it is ultimately about empowerment and transformation to create own's future, job income, wealth, identity, sense of purpose, and ability to give back (Morris et al., 2018). In this context, many see entrepreneurship in developing economies as a push out of poverty rather than a business opportunity waiting to be seized (see for example (Amoros & Cristi, 2011; Brutton et al., 2013; McMullen, 2011) but not all the evidence supports this. For example, in the 2017 Forbes list of the world's 56 self-made women billionaires, there were 21 Chinese entrepreneur; and co-founders of companies like Haier, AliBaba, and Huawei are women (Tse & Tai, 2018).

In fact, a recent survey in China (Girlup.org, 2017) shows that China's promotion of gender equality, especially workplace equality, has had a strong influence to reach a TEA female/male ratio of 0.87, above the global average of 0.7 (as measured by the Global Entrepreneurship Monitor); this is a major improvement as before 1950 women entrepreneurs were almost unheard of in China. The survey also shows the following:

-in the past successful businesswomen tended to start their careers in state-owned enterprises where they developed their business acumen, improved their managerial skills, and saved up the capital needed to start a business. Today, more are starting from scratch, and starting earlier in their lives,

- -women entrepreneurs in China today tend to concentrate in the 21-30 age group (as a reference, the 36-45 age group predominate in the national female workforce),
- -failure is no longer stigmatised; in the sample many women were second- or even third-time entrepreneurs,
- -technology seems to have empowered Chinese women. Several years ago, traditional sectors such as real estate and logistics were the fastest path to wealth for women. Currently they perceive nontraditional industries as those with lower entry barriers and a more gender-neutral environment. In the sample, 36% of Chinese women entrepreneurs work in the digital economy, of which around 64% are in the BAT (Baidu, Alibaba, Tencent) ecosystem. Good examples of this kind of start-ups are Jiayuan.com and Dhgate.com,
- -Improvements in education attainment have encouraged women. More Chinese are attending university overseas and many return home to start a business; about 60% of China's women entrepreneurs were educated abroad, 51% in the US.

In addition, a 2019 survey of women entrepreneurs from 15 Latin American countries (Ilie & Cardoza, 2019) shows that:

-a university degree seems to be a driver for starting a company, 76% of women entrepreneur are in

¹ In comparison, global gender parity has almost been achieved in Educational Attainment and in Health & Survival with gaps of just 5% and 4%, respectively (World Economic Forum, 2018).

possession of one (81% men),

- -being single and independent seems to be a stronger driver for women than for men to start a business, only 53% were in a formal relationship when started a venture (this compares with 70% of men),
- -women in the sample have started companies in more traditional and social-related industries (like communication, health, human resources, hospitality and tourism, and construction) in comparison with men that have started firms in newer industries (like software, banking and financial services, construction, and agribusiness),
- -women seem to be willing to take lower risks than men,
- -men-led companies expect higher growth in the next years (which may be related to the industry they operate),
- -women-led businesses have more women in their decision-making bodies and among their employees,
- -family-related duties (like pregnancy, adult care, lack of family support or divorce) represent 21% of the reasons for women to abandon a business (this compares with only 2% for men).

The findings from these surveys focused on women entrepreneurs present a picture where opportunity

seems to be the main driver for pursuing the founding and development of new ventures in these emerging economies. Women that are in their 20's, single, with university-level education, with experience abroad, and with little fear to fail are overcoming the challenges usually found in developing contexts have become entrepreneurs. This is consistent with the findings from the Global Entrepreneurship Monitor, today's women entrepreneurs are more opportunity-driven compared to their predecessors, even their male counterparts (Tse & Tai, 2018).

In addition, the figures in China are presenting a picture that requires a second look. Female entrepreneurship is booming as shown, the first reaction would be to think that this is the result of an economy with sustained high growth and focused on innovation. But there may be another key element playing a role; since the start of the reforms at the end of the 1970s China's social structure has dramatically changed making room for a new structure without the legacies, barriers, and socially accepted/not accepted behaviours. This may have created an environment where women are in a similar position as men to get involved in economic activities including entrepreneurship, which is different from the legacy structures encountered in other countries.

QUESTIONS LOOKING FOR ANSWERS

Within this context, the following questions need answers to understand better female entrepreneurship in emerging economies with the aim of improving the conditions for women-led companies to develop.

1. Questions related to the business environment.

- -What are the drivers/enablers and barriers for female entrepreneurship in less developed contexts?
- -Are institutional voids an extra barrier for the development of women-led firms?
- -What do women entrepreneurs need to flourish in a relatively weak institutional environment like the one usually found in emerging economies?

-What are the institutions doing to follow the Agenda 2030 and enhance the female role in the business sector?

2. Questions related to areas for business opportunities.

- -Are technological changes an accelerator for female entrepreneurship?
- -Would the encouragement of IT-related university-level education for women improve the entrepreneurship rate?
- -Are women in emerging economies more risk averse?

3. Questions related to the social structure.

-How to level the playing field for women when socially

accepted norms that privilege men for most economic activities (Branisa et al., 2013; Sen, 2001)?

-Can women supporting themselves shine together (Friedman, 2013)?

-Can the social changes in China since 1978 be considered a blank slate that put women in a similar situation as men for the development of new ventures (Pinker, 2002)?

References

Afandi, E., & Kermani, M. 2014. Bridging the Gender Gap in Entrepreneurship: Evidence from Europe.

Aidis, R., Welter, F., Smallbone, D., & Isakova, N. 2007. Female entrepreneurship in transition economies: the case of Lithuania and Ukraine. *Feminist Economics*, 13(2): 157-183.

Amoros, J., & Cristi, O. 2011. Poverty and entrepreneurship in developing countries. In M. Minniti (Ed.), *The Dynamics of Entrepreneurship: Evidence from Global Entrepreneurship Monitor Data*. Oxford: Oxford Scholarship Online.

Baughn, C. C., Chua, B. L., & Neupert, K. E. 2006. The normative context for women's participation in entrepreneruship: A multicountry study. *Entrepreneurship Theory and Practice*, 30(5): 687-708.

Bernat, L. F., Lambardi, G., & Palacios, P. 2017. Determinants of the entrepreneurial gender gap in Latin America. *Small Business Economics*, 48(3): 727-752.

Bird, B., & Brush, C. 2002. A gendered perspective on organizational creation. *Entrepreneurship theory and practice*, 26(3): 41-65.

Bönte, W., & Piegeler, M. 2013. Gender gap in latent and nascent entrepreneurship: driven by competitiveness. *Small Business Economics*, 41(4): 961-987.

Branisa, B., Klasen, S., & Ziegler, M. 2013. Gender Inequality in Social Institutions and Gendered Development Outcomes. *World Development*, 45: 252-268.

Brutton, G., Ketchen, D., & Ireland, R. 2013. Entrepreneurship as a solution to poverty. *Journal of Business Venturing*, 28(6).

Caliendo, M., Fossen, F., & Kritikos, A. S. 2014. Personality characteristics and the decisions to become and stay self-employed. *Small Business Economics*, 42(4): 787-814.

Cardoza, G., Fornes, G., Farber, V., Gonzalez Duarte, R., & Ruiz Gutierrez, J. 2016. Barriers and public policies affecting the international expansion of Latin American SMEs. Evidence from Brazil, Colombia, and Peru. *Journal of Business Research*, 69(6): 2030-2039.

Cardoza, G., Fornes, G., Li, P., Xu, N., & Xu, S. 2015. China goes global: public policies' influence on Small and Medium-size Enterprises' international expansion *Asia Pacific Business Review*, 21(2): 188-210.

Fairlie, R. W., & Meyer, B. D. 1996. Ethnic and racial self-employment differences and possible explanations. *Journal of human resources*: 757-793.

Fairlie, R. W., & Robb, A. 2007. Families, human capital, and small business: Evidence from the characteristics of business owners survey. *ILR Review*, 60(2): 225-245.

Friedman, A. 2013. Shine Theory: Why Powerful Women Make the Greatest Friends, The Cut.

Girlup.org. 2017. Number of women founders, CEOs, and partners in China. Beijing.

Ilie, C., & Cardoza, G. 2019. Entrepreneurship & Gender in Latin America. Boston: David Rockefeller Center for Latin American Studies. Harvard University.

Ilie, C., Garcia, J., & Cardoza, G. 2017. *El Progreso Social de las Mujeres en América Latina:Hacia la Construcción de Sociedades Equitativas - 2017*. Alajuela: INCAE Business School.

Jamali, D. 2009. Constraints and opportunities facing women entrepreneurs in developing countries: A relational perspective. *Gender in management: an international journal*, 24(4): 232-251.

Jiao, H., Koo, C. K., & Cui, Y. 2015. Legal environment, government effectiveness and firms' innovation in China: examining the moderating influence of government ownership. *Technological Forecasting and Social Change*, 96: 15-24.

Kelley, D., Singer, S., & Herrington, M. 2016. Global Entrepreneurship Monitor 2015/16 Global Report.

Kelley, D. J., Brush, C., Greene, P., & Litovsky, Y. 2013. Global Entrepreneurship Monitor 2012 Women's Report.

Luke, N., & Munshi, K. 2011. Women as agents of change: Female income and mobility in India. *Journal of Development Economics*, 94(1): 1-17.

McMullen, J. 2011. Delineating the domain of development entrepreneurship: A market-based approach to facilitating inclusive economic growth. *Entrepreneurship Theory and Practice*, 35(1).

Minniti, M., Bygrave, W. D., & Autio, E. 2005. Global entrepreneurship monitor. 2004 Report on Women and Entrepreneurship.

Minniti, M., & Naudé, W. 2010. What do we know about the patterns and determinants of female entrepreneurship across countries?: Springer.

Morris, M., Santos, S., & Neumeyer, X. 2018. *Poverty and entrepreneurship in developed economies*. Cheltenham and Northampton: Edward Elgar.

Pinker, S. 2002. The Blank Slate: The Modern Denial of Human Nature. New York: Penguin books.

Schwab, K., 2015. The Fourth Industrial Revolution, https://www.foreignaffairs.com/articles/2015-12-12/fourth-industrial-revolution, last accessed on 10/12/2018.

Sen, A. 2001. Development as Freedom (2nd ed.). Oxford New York: Oxford University Press.

Tse, E., & Tai, J. 2018. Dare to fail: why China's women entrepreneurs are finding greater success, *South China Morning Post*.

UN. 2017. Progress of Women in Latin America and the Caribbean 2017. Washington: United Nations.

Van der Zwan, P., Verheul, I., & Thurik, A. R. 2012. The entrepreneurial ladder, gender, and regional development. *Small Business Economics*, 39(3): 627-643.

Vossenberg, S. 2013. Women Entrepreneurship Promotion in Developing Countries: What explains the gender gap in entrepreneurship and how to close it. *Maastricht School of Management Working Paper Series*, 8: 1-27.

World Economic Forum. 2018. The Global Gender Gap Report 2018. Geneva: World Economic Forum.

Yunus, M. 2005. Eliminating poverty through market-based social entrepreneurship. Global Urban Development, 1(1).

