An Extension of the Model of Network Marketing Business Entrepreneurial Performance

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Abstract

This study extends a path model that examines the factors explaining why 227 Chinese immigrants participate in network marketing (NM) business in Australia. Our analysis shows that the social environment within NM organizations positively leads to the development of immigrants’ self-efficacy in NM business, their desire for opportunities, social competence, and human capital. These factors have led to an increase in the activities undertaken by Chinese immigrants in conducting their network marketing business. Social environment also impacts positively on their motivation to participate in NM business. These factors have a positive impact on their financial performance outcome. Our findings contribute to the literatures on Social Cognitive Theory, Theory of Planned Behavior, entrepreneurial intention, and ethnic entrepreneurship.

Key words: network marketing business, social cognitive theory, ethnic entrepreneurship, Chinese immigrants, motivation, social competence, human capital

Network marketing, also known as direct selling or multilevel marketing, is a system in which a manufacturer pays people outside the company to sell its products and services directly to consumers (Harris, 2004). In return, each salesperson is given the opportunity to build his or her own network marketing organization (NMO) by recruiting, training and motivating others to sell the same products and services (Vander Nat and Keep, 2002; Harris, 2004). NMO has slowly started attracting researchers’ attention in the past ten years (Bhattacharya and Mehta, 2000; Pratt, 2000; Sparks and Schenk 2001, 2006, Lin, 2007), in spite of the fact that this type of business organization has existed for over 50 years (Biggart, 1989) and has become one of the most successful types of organizations in business (Sparks and Schenk, 2001, 2006).

The authors of the current paper (Authors, forthcoming) developed a model of NM business entrepreneurial action to explain the actions undertaken by Chinese immigrants in conducting NM
business in a Western host country context. However, they had not taken into consideration the dynamic nature of the network marketers’ motivation and skills in enhancing their financial performance in NM business. The current paper aims to extend our model of NM business entrepreneurial action (Authors, forthcoming). We will also redefine the motivation of Chinese network marketers in conducting NM business and incorporate additional variables, such as the desire for opportunity from NM business, human capital and financial performance outcome. The expanded model is constructed with Social Cognitive Theory (SCT, Bandura, 1986, 1997, 2001), Theory of Planned Behavior (TPB, Ajzen, 1991, 2001), entrepreneurial intention (Krueger, 1993), and ethnic entrepreneurship (Chaganti and Greene, 2002). Following this introductory section, we will provide a review of the literature. This is followed by an outline of our research design. The findings are then presented, followed by a discussion on the theoretical and practical implications for the management of Chinese immigrant network marketers.

**Literature Review and Hypotheses Development**

NMOs are based on one or both of two substantive values: a belief in entrepreneurialism and a belief in the transformative power of products (Biggart, 1989) to attract newcomers to the business. They claim themselves as a way for the “ordinary” person to attain wealth and status without such barriers to entry as an Ivy League education, high social position, or significant inheritance (Kuntze, 2001). According to Biggart (1989), NMOs open their doors to everyone who wants to try. Due to no entrance criteria for people to get into NMOs (Biggart, 1989), many network marketers had no experiences in selling products or services before their participation in NMOs (Authors, forthcoming).

Network marketers are independent contractors or small business owners, who are responsible for their own profits and costs (Sparks and Schenk, 2001, 2006). Inexperienced network marketers may face huge challenges when they conduct their businesses by themselves in the field (Parks and Schenk, 2001). If a group of inexperienced network marketers work together and share their experiences and resources with each other, they may be able to overcome these challenges (Authors, forthcoming). Therefore the main strategy utilized by NMOs is to create an attractive environment where network marketers work together cohesively, the competition is not encouraged (Bhattacharya and Mehta, 2000; Pratt, 2000).
Authors (forthcoming) summarized NMO social environment as possessing three characteristics: cohesion, peer support/influence, and training. According to these characteristics, we predict that (i) the social environment of NMO positively affects a network marketer’s self-efficacy in conducting the business, network marketer’s desire for opportunity from NM business and the motivation to conduct NM business; (ii) social environment of NMO positively affects network marketers’ social competence and human capital; and (iii) NM specific self-efficacy, desire for opportunity from NM business, social competence and human capital positively affect NM business entrepreneurial action, which in turn, positively affects financial performance.

Review of the literature shows pursuing entrepreneurship is an important activity for network marketers (Sparks and Schenk, 2001, 2006; Authors, forthcoming). Some authors have investigated the influence of environment on the decision to pursue entrepreneurial opportunities (Korunka et al., 2003; Taormina and Lao, 2007). Entrepreneurship requires decision and action (McMullen and Shepherd, 2006). Entrepreneurial action is affected by the amount of uncertainty, the willingness to bear uncertainty, and judgment (McMullen and Shepherd, 2006). SCT suggests that people’s entrepreneurial judgments are not objectively rational (Bandura, 1986); they rely on their belief in their own efficacy, which influences the course of action that people choose to pursue (Bandura, 1997). The important sources for people to obtain self-efficacy include the influence of the environment and the training (Bandura, 1997). Authors (forthcoming) argue that the social environment of NMO positively influences the self-efficacy of marketers in undertaking NM business, as organized activities provide immigrant network marketers with a venue to socialize with others from their home country/community. In this social environment, immigrant network marketers can meet with others who are successful performers within the business. This allows them to enhance their self-efficacy (Bandura, 1986).

However, self-efficacy is not sufficient to retain Chinese immigrants in NM business, if they do not have the desire for this opportunity (Ajzen, 1991; Krueger, 1993). The desire for profitable opportunities is an important trait of the entrepreneur (Shane and Venkataraman, 2000; McMullen and Shepherd, 2006). It is influenced by the group norm through adding social pressure to act so as to achieve
an outcome (Sekerka and Bagozzi, 2007). Based on the SCT (Bandura, 1986) and empirical support for the impact of the social environment on the desire for opportunity in the literature (Messick and Thorngate, 1967; Malhotra, 2010), we argue that Chinese network marketers’ desire for entrepreneurial opportunity is affected positively by the social environment of NMO.

Hypothesis 1: The influence of social environment is positively associated with Chinese immigrant network marketers’ self-efficacy in conducting their business.

Hypothesis 2: The influence of social environment is positively associated with Chinese immigrant network marketers’ desire for pursuing opportunities from NM business.

The TPB (Ajzen, 1991) and the literature on entrepreneurial intention (Krueger, 1993) suggest that entrepreneurial intention is determined by both self-efficacy and desire to pursue entrepreneurship. If an individual only has self-efficacy or desire for entrepreneurial opportunity, he/she will not develop the intention to pursue entrepreneurship (Krueger, 1993). To achieve financial results, entrepreneurial actions must be taken (McMullen and Shepherd, 2006). Entrepreneurial intention is the single best predictor of entrepreneurial action (Choo and Wong, 2006). Thus we hypothesize that:

Hypothesis 3: There is a positive relationship between Chinese immigrant network marketers’ self-efficacy and network marketing activities undertaken.

Hypothesis 4: There is a positive relationship between Chinese immigrants’ desire for entrepreneurial opportunity and network marketing activities undertaken.

Social competence is one of the important business capabilities for network marketers (Hayton and Kelley, 2006), as it provides network marketers with the ability to communicate and cooperate with others (Kauffeld, 2006). Researchers assert that social competence can be learned (Hoehn-Weiss, Brush and Baron, 2004). There is empirical support for the creation of a learning environment by NMO for network marketers to learn the required skills (Authors, forthcoming). It is this learning environment and the socialization aspects of the organized training activities which impact positively on the social competence of network marketers (Authors, forthcoming).
Hypothesis 5: There is a positive relationship between social environment and the social competence of Chinese immigrant network marketers.

The literature has shown that social competence is positively related to business performance (Porath and Bateman, 2006). Business performance relies on actions taken in conducting business activities (McMullen and Shepherd, 2006). The main activities in NM business are selling products, recruiting new network marketers and supporting and training them to do the same things (Biggart, 1989; Sparks and Schenk, 2001, 2006), which involve numerous interactions between network marketers and their prospects. Effectiveness in interacting with others is the mark of social competence (Baron and Markman, 2003). Thus, we hypothesize that:

Hypothesis 6: There is a positive relationship between network marketers’ social competence and the number of NM related activities they will undertake.

The SCT suggests that social reactions are the predictors of primary consequences; people will do things for the approval of others and refrain from actions that arouse the wrath of others (Bandura, 1986). We argue that. Authors (forthcoming) showed that the social environment of NMO has positively affected the motivation of network marketers in conducting their NM business. Motivation of network marketers has been defined narrowly to include only extrinsic factors (Authors, forthcoming). Kuntze (2001) and Bhattacharya and Mehta (2000) argued that the motivation of network marketers includes both extrinsic and intrinsic factors. Hence, we hypothesize that:

Hypothesis 7: There is a positive relationship between social environment and Chinese immigrant network marketers’ motivations in conducting their NM business.

According to SCT, people evoke different reactions from their social environment simply by their physical characteristics, such as their age, size, race, sex, and physical attractiveness (Bandura, 1986). Chinese immigrants are more likely to respond to NMO’s entrepreneurship promotions to pursue entrepreneurship (Authors, forthcoming). The most important construct for entrepreneurial traits is the need for achievement (Zhao and Seibert, 2006). The result of their study provided empirical support for the positive relationship between achievement motivation and entrepreneurial activities. They concluded
that the higher level of motivation an individual has, the more s/he will desire entrepreneurial opportunity. Thus, we hypothesize that:

*Hypothesis 8: There is a positive relationship between Chinese immigrant network marketers’ motivation and their desire for opportunity.*

Bandura (1986) asserts that people select a course of action within their perceived capabilities (Bandura, 1986). Individuals’ motivation level is based on what they believe rather than on what is objectively true (Bandura, 1997). This statement is supported by empirical studies (Carlson et al., 2000; Tai, 2006). Carlson et al.’s (2000) study shows that there is a positive relationship between self-efficacy and motivation to attain achievement. The result in Carlson et al.’s (2000) is supported by Tai’s (2006) empirical study. Thus, we hypothesize that:

*Hypothesis 9: There is a positive relationship between motivation in conducting NM business and NM business-specific self-efficacy.*

One of the important objectives for entrepreneurial activities is to pursue profit (Sadler-Smith et al. 2003). To make a profit, entrepreneurial actions must be taken (McMullen and Shepherd, 2006). Entrepreneurial actions remain at the core of how an entrepreneur stretches to reach his/her objective and improve performance (Kuratko et al., 2001). To make a profit from NM business, network marketing activities must be undertaken (McMullen and Shepherd, 2006), including selling products, recruiting new network marketers and providing support/training (Biggart, 1989; Sparks and Schenck, 2001, 2006).

*Hypothesis 10: There is a positive relationship between network marketing activities undertaken and the financial performance outcome.*

As mentioned above, NMO uses training as an aspect of influencing network marketers to engage with the organization and with others. This has been claimed to be a key characteristic of NMO (Authors, forthcoming). Training is an important part of the environment of social influence within MNO. Empirical evidence shows that training is positively related to human capital (Paloniemi, 2006; Eikebrokk and Olsen, 2009). Thus, we hypothesize that:
Hypothesis 11: There is a positive relationship between social environment and human capital of Chinese immigrant network marketers.

The empirical evidence provided by Authors (forthcoming) suggests that NMO social environment is positively related to self-efficacy. They found that as Chinese immigrant network marketers possess a higher level of self-efficacy, then, they will stay longer with the network marketing business; resulting in a positive accumulation of experience in network business. This finding is consistent with the SCT (Bandura, 1986). Thus, we hypothesize that:

Hypothesis 12: There is a positive relationship between the human capital of Chinese immigrant network marketers and network marketing activities undertaken.

Human capital theory suggests that experience is a valuable asset in enhancing organisational productivity and economic value (Shrader and Siegel, 2007). Eikebrokk and Olsen (2009) and Paloniemi (2006) have shown that training can result in improved level of skills and competencies (aspects of human capital), which resulted in entrepreneurial performance (Hitt, et al., 2006). Therefore, we expect the presence of human capital to impact positively on the financial performance of network marketers.

Hypothesis 13: There is a positive relationship between the human capital of Chinese immigrant network marketers and the financial performance outcome.

Based on the above hypotheses, we propose the following path model:

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Insert Figure 1 about here
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Method

Prior to sending the questionnaire for the survey, four focus group interviews were conducted, each focus group composing six to eight Chinese network marketers. In addition, a pilot study was conducted to validate the questionnaire items. Exploratory factor analysis was performed. Confirmatory factor analysis was conducted with AMOS 17. The results are presented in Appendix 1, which show that these measures are valid and the data fit the measurement models.
Data collection was composed of two parts: (i) subjective data; and (ii) objective performance data. Data were collected at various training venues for Chinese immigrant network marketers in New South Wales, Victoria and Queensland. With the permission of a direct selling firm and institutional ethics clearance, we matched the data with objective performance data provided by the direct selling firm.

**Measures**

*Motivation to conduct NM business* (formative measure) was measured with 24 items. Eighteen items were adopted from Kuntze (2001), six were generated from focus group interviews. Respondents were asked to indicate how accurately each one of the statements described the motivation for them to pursue NM business on a five-point Likert scale, where ‘1’ = strongly disagree and ‘5’ = strongly agree.

This measurement was re-conceptualized, 18 items used to measure extrinsic and intrinsic factors developed by Kuntze (2001) and six items used to measure motivation of establishing one own business (Authors, forthcoming). The re-conceptualized measurement for motivation is more comprehensive than the original one, because the satisfaction needs that network marketers pursue include three components: (i) establishment of one’s own business; (ii) extrinsic satisfactions; and (iii) intrinsic satisfactions (Biggart, 1989; Bhattacharya and Mehta, 2000; Pratt, 2000). According to Jarvis et al., (2003) the construct of motivation should be formative.

*Influence of NMO social environment* (reflective measure) was measured by 18 items generated from Sparks and Schenk (2001, 2006) and focus group interviews. Respondents were asked to indicate how accurately each one of the statements of sample items described influence them on a five-point Likert scale, where ‘1’ = strongly disagree and ‘5’ = strongly agree.

*Desire for entrepreneurial opportunity* (reflective measure) was measured with 12 items developed on the basis of Krueger’s (1993) notion and obtained from focus group interviews. Respondents were asked to indicate how accurately each statement described their desire for opportunity on a five-point Likert scale, where ‘1’ = strongly disagree and ‘5’ = strongly agree.

*NM business specific self-efficacy* (reflective measure) was measured with 12 items from Krueger (1993) and focus group interviews. Respondents were asked to indicate how accurately each one of the
statements described their capabilities in conducting NM business on a five-point Likert scale, where ‘1’ = very hard/absolutely not sure to and ‘5’ = very easy/absolutely sure.

*Social competence* (formative measure) was measured with 17 items adapted from Baron and Markman (2003). Respondents were asked to indicate how accurately each statement described their social competence on a five-point Likert scale, where ‘1’ = strongly disagree and ‘5’ = strongly agree.

*Human capital.* Our literature review did not uncover any scales measuring human capital in NMO. We multiplied months of experience in conducting NM by the number of weekly working hours. This is to measure the experience in conducting network business, a proxy of human capital.

*NM business entrepreneurial actions* (reflective measure). To measure this variable, seven items were adapted from Sparks and Schenk (2001) and focus group interviews. Respondents were asked to indicate how much time they spent on conducting business activities weekly on a five-point Likert scale, where ‘1’ = least time and ‘5’ = most time.

*Financial performance outcome* was measured with objective data (weekly income) obtained from the database of a direct selling firm.

**Data Analysis**

The hypothesized model of NM specific performance is composed of formative and reflective constructs. *SmartPLS* (Ringle et al., 2005) was used to test the hypotheses. The significance of each variable to one another is determined according to the bootstrap procedure (500 sub-samples).

We took a number of steps to address validity and reliability of reflective and formative scales (Petter, Straub and Rai, 2007; Chin, 2010). The calculation of Variance Inflation Factors (VIF) were all less than 3.33, showing Multicollinearity is of no major concern (Cenfetelli and Bassellier 2009). To prevent common method variance (CMV), we carefully designed the research and collected data for the objective dependent variable and independent variables from two different sources (Podsakoff et al., 2003). To check CMV, we used Harman’s ex post one factor test to ensure that the current study did not suffer from common method variance. The analysis showed that there were 20 factors (with eigenvalues
greater than 1.0) which explained 72.58% of the variance. The result of the analysis did not provide full support that common method variance is not an issue.

**Findings**

The total useable questionnaires collected were 227 (representing a response rate of 51.8 percent). Most of the respondents were female (73.6 percent). They were aged between 18 to more than 60 years, with the majority in the range of 31-50 years. A large number of the respondents considered themselves as not very proficient in English (41.2 percent). In general, they were educated. 68.7 percent have university degrees. Their experience in conducting NM business ranged from 1 to 119 months (mean of 28.56 months). They worked 23 hours per week on NM business (SD = 15.63 hours).

Table 1 shows the means, standard deviations, and intercorrelations of the variables in the study. The correlation coefficients show that the dependent variable (financial performance) is strongly correlated to human capital and NM business entrepreneurial actions. The model developed in the current study has a medium level of goodness of fit (GOF=0.3345) and the R-square of the dependent variable, financial performance, is moderate (R-square =0.430). As shown in Table 2, all of our hypotheses were supported.

Insert Tables 1 and 2 about here

**Discussion and Implications**

The main objective in the current research is to extend the model of NM business entrepreneurial action (Authors, forthcoming) to the model of NM business entrepreneurial performance by examining the causal relationships of the independent variables on the financial performance of Chinese network marketers. The results show that the financial outcome of the performance is determined by actions undertaken by Chinese network marketers in conducting their NM business and network marketers’ experiences in operating their NM business. All paths in the extended model were supported by the
findings. Our literature review (Mcmullen and Shepherd, 2006; Baron and Markman, 2003) suggests that social competence positively affects entrepreneurial actions. It has been supported in the current study.

In the current study, we incorporated both extrinsic and intrinsic factors to operationalise the motivation of network marketers in establishing their own business. The re-conceptualized construct is more comprehensive because it reflects Chinese immigrant network marketers’ need for career (Sequeira and Rasheed, 2006), social satisfaction and economic satisfaction (Bhattacharya and Mehta, 2000).

As well as SCT (Bandura, 1986), we also integrated the TPB (Ajzen, 1991) and entrepreneurial intention (Krueger, 1993) to the extended model. Our main theoretical contributions include: (i) confirmation of the impact of influence of social environment of NMO on self-efficacy and social competence suggested in the original model; (ii) examination of the impact of self-efficacy and desired for opportunity on the NM business entrepreneurial actions based on the TPB in the context of NMOs; (iii) provision of statistical evidence in this study, based on the large sample; and (iv) testing of the re-conceptualized model using PLS Modeling in order to examine the formative properties of social competence and motivation scales.

The present study has two practical implications. By understanding the factors affecting performance financial results, NM business entrepreneurs are able to develop effective strategies to conduct their business activities. In addition, the management of direct selling firms may apply the model developed in the current study to create an appropriate social environment within NMO and improve network marketers’ productivity.

The current research has some limitations. Firstly, like all cross-sectional research, the data was collected at a single point in time. Therefore, the current research cannot explain the effects of time on the relationship posited in the model. Secondly, the sample of this study only focused on Chinese immigrants in Australia. To generalize the findings of this study, more studies with heterogeneous samples are needed.

**Conclusion**

We have expanded the model in our previous study to a new model in the current study to explain the factors that affect the financial performance outcome of Chinese immigrant network marketers in
conducting their business. The original model (Authors, forthcoming) only contained reflective constructs. In the current model, we have re-conceptualized our constructs and extended our original model to take into consideration the formative characteristics of social competence and motivation. We also incorporated human capital, desire for opportunity and financial performance outcome into the model in order to identify the relationships of the variables. SmartPLS enabled us to analyze the model composed of both reflective and formative constructs (Wetzels et al., 2009).

In summary, we have shown that the financial performance outcome of Chinese network marketers is positively influenced by the actions undertaken and the experience of these network marketers in conducting NM business. We have applied the TPB to show that the planned actions undertaken by Chinese network marketers in conducting NM business are caused by their desire for opportunity and self-efficacy in conducting NM business. TPB suggests entrepreneurial intention is caused by both self-efficacy and desire for opportunity and entrepreneurial intention directly causes entrepreneurial action. Accordingly, we hypothesized and confirmed with testing that network marketing business entrepreneurial action is caused by self-efficacy and desire for opportunity.

References


Figure 1 Hypothesized Model of Network Marketing Business Entrepreneurial Performance
Figure 2. Results of Path Analysis
Table 1. Means, standard deviations, and correlations of variables

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<tbody>
<tr>
<td>1. Environmental influence</td>
<td>68.25</td>
<td>8.34</td>
<td></td>
<td>.81</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. Motivation</td>
<td>81.88</td>
<td>14.10</td>
<td>.44**</td>
<td>.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>3. Desire for opportunity</td>
<td>28.39</td>
<td>4.51</td>
<td>.34**</td>
<td>.25**</td>
<td>.88</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4. Self-efficacy</td>
<td>24.40</td>
<td>5.92</td>
<td>.27**</td>
<td>.39**</td>
<td>.45**</td>
<td>.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5. Social competence</td>
<td>51.45</td>
<td>7.19</td>
<td>.24**</td>
<td>.31**</td>
<td>.23**</td>
<td>.56**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6. Human capital</td>
<td>986.85</td>
<td>1187.08</td>
<td>.16</td>
<td>.10</td>
<td>.32**</td>
<td>.20</td>
<td>.27**</td>
<td>1.00</td>
<td></td>
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<tr>
<td>7. NM entrepreneurial Action</td>
<td>17.21</td>
<td>6.25</td>
<td>.22**</td>
<td>.29**</td>
<td>.49**</td>
<td>.44**</td>
<td>.30**</td>
<td>.60**</td>
<td>1.00</td>
<td></td>
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<tr>
<td>8. Financial outcome</td>
<td>4.71</td>
<td>1.56</td>
<td>.08</td>
<td>.15**</td>
<td>.38**</td>
<td>.31**</td>
<td>.23**</td>
<td>.70**</td>
<td>.58**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note: N = 227
* p < 0.05, ** p < 0.01

Italicised and underlined values indicate square root of Average Variance Estimates (discriminant validity of reflective scales)
Table 2. The Results of Hypotheses Tests

<table>
<thead>
<tr>
<th>Path</th>
<th>Path coefficient</th>
<th>t-statistic</th>
<th>Sig. level</th>
<th>Hypotheses</th>
</tr>
</thead>
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<td>H1: Social environment influence of NMO → Self-efficacy</td>
<td>0.145</td>
<td>2.097</td>
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<tr>
<td>H2: Self-efficacy → Network marketing entrepreneurial actions</td>
<td>0.155</td>
<td>2.122</td>
<td>*</td>
<td>supported</td>
</tr>
<tr>
<td>H3: Social environment influence of NMO → Desire for opportunity</td>
<td>0.368</td>
<td>6.193</td>
<td>***</td>
<td>supported</td>
</tr>
<tr>
<td>H4: Desire for opportunity → Network marketing entrepreneurial action</td>
<td>0.295</td>
<td>5.142</td>
<td>***</td>
<td>supported</td>
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<tr>
<td>H5: Social environment influence of NMO → Social competence</td>
<td>0.274</td>
<td>4.155</td>
<td>***</td>
<td>supported</td>
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<tr>
<td>H6: Social competence → Network marketing entrepreneurial action</td>
<td>0.181</td>
<td>2.507</td>
<td>*</td>
<td>supported</td>
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<td>H7: Social environment influence of NMO → Motivation</td>
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<tr>
<td>H8: Motivation → Desire for opportunity</td>
<td>0.138</td>
<td>1.993</td>
<td>*</td>
<td>supported</td>
</tr>
<tr>
<td>H9: Motivation → Self-efficacy</td>
<td>0.324</td>
<td>5.138</td>
<td>***</td>
<td>supported</td>
</tr>
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<td>H10: Network marketing entrepreneurial Action → Financial performance</td>
<td>0.403</td>
<td>8.441</td>
<td>***</td>
<td>supported</td>
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<tr>
<td>H11: Social environment influence of NMO → Human capital</td>
<td>0.131</td>
<td>2.252</td>
<td>*</td>
<td>supported</td>
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<tr>
<td>H12: Human capital → Network marketing entrepreneurial action</td>
<td>0.318</td>
<td>6.271</td>
<td>***</td>
<td>supported</td>
</tr>
<tr>
<td>H13: Human capital → Financial performance</td>
<td>0.369</td>
<td>7.485</td>
<td>***</td>
<td>supported</td>
</tr>
</tbody>
</table>

* p < 0.05, ** p < 0.01, ***p<.001
Appendix 1

Sample items used to measure variables in the model of Model of Network Marketing Business Entrepreneurial Performance

The following sub-scales were formed using first order reflective scales. Subsequently, they were combined to form a formative second order latent variable.

Motivation for conducting network marketing business

1. Extrinsic motivation (Cronbach’s alpha= .852)
   • To be able to have lavish lifestyle
   • To buy all of the toys, cars, boats, vocation homes – have always wanted
   • To make a lot of money
   • To be able to vocation more often- and in more exotic locations
   • To get rich quickly
   • To have financial security
   • To be free to name my own hours
   • For personal accomplishment
   • To have power to call my own shots
   • To be free to work wherever I want-including from home

2. Intrinsic motivation (Cronbach’s alpha= .789.)
   • To directly contribute to a company’s success
   • To keep learning
   • While earning money is nice, there are other more important reasons for my work with this network marketing organization
   • To better use my skills
   • To be challenged
   • To have influence over and create a positive impact upon my community
• In my work with this network marketing organization, I feel I’m part of a “cause” that’s about more than earning money
• To be innovative

3. Motivated to establishing one’s own business (Cronbach’s alpha= .806.)
• It doesn’t really matter if I fail in my network marketing business, because I have only invested little money in it.
• It is a good opportunity for me to learn how to start up my own business, because it only cost little money.
• To start up my own business without financial pressure
• To start up my own small business with lowest investment and risks

Social Competence
1. Social Perception (Cronbach’s alpha=.891)
• I can tell why people have acted the way they have in most situation
• I can usually read others well – tell how they are feeling in a given situation
• I can usually recognize other’s traits accurately by observing their behavior
• I am a good judge of other people
• I generally know when it is the right time to ask someone for a favor
• I can easily adjust to being in just about any social situation

2. Expressiveness (Cronbach’s alpha= .736)
• What ever emotion I feel on the inside tends to show on the outside
• People can always read my emotions even if I try to cover them up
• I am very sensitive to criticism from others
• Other people can usually tell pretty much how I feel at a given time
• I often concerned about what others think of me
3. Social Adaptability and Impression Management (Cronbach’s alpha = .679)

- I’m good at flattery and can use it to my advantage when I wish
- People tell that I am sensitive and understanding
- I can appear to like someone even when I don’t
- I have no problems introducing myself to strangers

The following sub-scales were formed using first order reflective scales, and the second order latent variables were also reflective.

Influence of social environment of NMO

The result of the test with AMOS (CFI = 0.936, RMSEA = 0.076, χ² = 232.525, df = 101, p = 0.000) shows the measurement equation fits the data. Discriminant validity and convergent validity are confirmed.

1. Social influence (Cronbach’s alpha = .912)

- My sponsor and other uplines lead “doing” rather than “telling”
- I receive valuable information from my sponsor and other uplines about how to make the most of being a member of this network marketing organization
- I look to my sponsor and other uplines as examples of how to be an effective network marketing organization member
- My sponsor and other uplines is an excellent source of information about being a successful member of this network marketing organization
- When it comes to making a success of my distributorship, I am satisfied with information I receive from my sponsor and other uplines
- My sponsor and other uplines help me see a positive future for myself as member of this network marketing organization
- My sponsor and other uplines are able to get me committed to a positive vision of the future with this network marketing organization
2. Training (Cronbach’s alpha= .865)

- Training provide by this network marketing organization is essential for me to operate my network marketing business
- Through the training provided by this network marketing organization, I have obtained large amount of knowledge about network marketing business
- The trainings I received in this network marketing organization are effective
- Much of the training I received as a network marketer came from other network marketers in this network marketing organization
- Without training provided by network marketing organization, I won’t be able to establish my network marketing business successfully

3. Cohesion (Cronbach’s alpha=.867)

- The members of my organization are very cooperative with each other
- The member of my organization believe we can depend on each other for advice and support concerning our distributorships
- The members of my organization support each others’ work
- There is a great deal of trust among fellow member in my organization

Network marketing business specific self-efficacy

The result of the test with AMOS (CFI = 0.972, RMSEA = 0.082, $\chi^2 = 47.558$, df = 19, p = 0.000) shows the measurement equation fits the data. Discriminant validity and convergent validity are confirmed.

1. Degree of difficulty (Cronbach’s alpha=.904)

- How easy do you think it would be to introduce your current network marketing business to others?
- How easy do you think it would be to recruit others to participate in your organization?
- How easy do you think it would be to conduct your current network marketing business?
• How easy do you think it would be to sell the products to others?

2. Confidence (Cronbach’s alpha= .852)
   • How sure of yourself in developing new leaders in your organization?
   • Do you know enough to conduct network marketing business?
   • How certain of success are you in conduct your current network marketing business?
   • How sure of yourself in communicating with others effectively?

Desire for opportunity from network marketing business
The result of the test with AMOS (CFI = 0.984, RMSEA = 0.074, \( \chi^2 = 29.020, \text{df} = 13, p = 0.07 \)) shows the measurement equation fits the data. Discriminant validity and convergent validity are confirmed.

Love and enthusiastic (Cronbach’s alpha= .869)
   • How enthusiastic would you be in learning skills and knowledge about how to conducting network marketing business
   • How enthusiastic would you be in sharing the opportunity of the network marketing business with others?
   • I would love conducting my current network marketing business
   • How enthusiastic would you be in sharing the products sold by this network marketing organization with others?

Tense (Cronbach’s alpha= .908)
   • How tense would you be in sharing the opportunity of the network marketing business with others?
   • How tense would you be in sharing the products sold by this network marketing organization with others?
   • How tense would you be in conducting your current network marketing business?
Network marketing business entrepreneurial action (Cronbach’s alpha = .882)

The result of the test with AMOS (CFI = 0.988, RMSEA = 0.077, \( \chi^2 = 17.234, \) df = 8, p = 0.028) shows the measurement equation fits the data. Discriminant validity and convergent validity were not tested because no sub-scales exist in this measurement.

- Hours per week devoted to distributorship work
- Hours per week devoted to presenting products and business opportunities to others
- Hours per week devoted to motivating and training new network marketers
- Hours per week devoted to learning business skills and knowledge
- Hours per week devoted to customer services
- Number of presentations conducted per week
- Number of sales workshops held per month
- Number of sales workshops held per month
An Extension of the Model of Network Marketing Business Entrepreneurial Performance

Abstract

This study extends a path model that examines the factors explaining why 227 Chinese immigrants participate in network marketing (NM) business in Australia. Our analysis shows that the social environment within NM organizations positively leads to the development of immigrants’ self-efficacy in NM business, their desire for opportunities, social competence, and human capital. These factors have led to an increase in the activities undertaken by Chinese immigrants in conducting their network marketing business. Social environment also impacts positively on their motivation to participate in NM business. These factors have a positive impact on their financial performance outcome. Our findings contribute to the literatures on Social Cognitive Theory, Theory of Planned Behavior, entrepreneurial intention, and ethnic entrepreneurship.

Key words: network marketing business, social cognitive theory, ethnic entrepreneurship, Chinese immigrants, motivation, social competence, human capital

Network marketing, also known as direct selling or multilevel marketing, is a system in which a manufacturer pays people outside the company to sell its products and services directly to consumers (Harris, 2004). In return, each salesperson is given the opportunity to build his or her own network marketing organization (NMO) by recruiting, training and motivating others to sell the same products and services (Vander Nat and Keep, 2002; Harris, 2004). NMO has slowly started attracting researchers’ attention in the past ten years (Bhattacharya and Mehta, 2000; Pratt, 2000; Sparks and Schenk 2001, 2006, Lin, 2007), in spite of the fact that this type of business organization has existed for over 50 years (Biggart, 1989) and has become one of the most successful types of organizations in business (Sparks and Schenk, 2001, 2006).

Dai, Wang and Teo (forthcoming) developed a model of NM business entrepreneurial action to explain the actions undertaken by Chinese immigrants in conducting NM business in a Western host country context. However, they had not taken into consideration the dynamic nature of the network marketers’ motivation and skills in enhancing their financial performance in NM business.
The current paper aims to extend the model of NM business entrepreneurial action developed by Dai et al (forthcoming). We will also redefine the motivation of Chinese network marketers in conducting NM business and incorporate additional variables, such as the desire for opportunity from NM business, human capital and financial performance outcome. The expanded model is constructed with Social Cognitive Theory (SCT, Bandura, 1986, 1997, 2001), Theory of Planned Behavior (TPB, Ajzen, 1991, 2001), entrepreneurial intention (Krueger, 1993), and ethnic entrepreneurship (Chaganti and Greene, 2002). With this model, we intend to answer the research question: what factors determine Chinese immigrants’ financial successes in conducting their network marketing business? Following this introductory section, we will provide a review of the literature. This is followed by an outline of our research design. The findings are then presented, followed by a discussion on the theoretical and practical implications for the management of Chinese immigrant network marketers.

**Literature Review and Hypotheses Development**

NMOs are based on one or both of two substantive values: a belief in entrepreneurialism and a belief in the transformative power of products (Biggart, 1989) to attract newcomers to the business. They claim themselves as a way for the “ordinary” person to attain wealth and status without such barriers to entry as an Ivy League education, high social position, or significant inheritance (Kuntze, 2001). According to Biggart (1989), NMOs open their doors to everyone who wants to try. Due to no entrance criteria for people to get into NMOs (Biggart, 1989), many network marketers had no experiences in selling products or services before their participation in NMOs (Dai et al, forthcoming).

Network marketers are independent contractors or small business owners, who are responsible for their own profits and costs (Sparks and Schenk, 2001, 2006). Inexperienced network marketers may face huge challenges when they conduct their businesses by themselves in the field (Sparks and Schenk, 2001). If a group of inexperienced network marketers work together and share their experiences and resources with each other, they may be able to overcome these challenges (Dai et al, forthcoming). Therefore the main strategy utilized by NMOs is to create an attractive environment where network marketers work together cohesively, the competition is not encouraged (Bhattacharya and Mehta, 2000; Pratt, 2000).
Dai et al (forthcoming) summarized NMO social environment as possessing three characteristics: cohesion, peer support/influence, and training. According to these characteristics, we predict that (i) the social environment of NMO positively affects a network marketer’s self-efficacy in conducting the business, network marketer’s desire for opportunity from NM business and the motivation to conduct NM business; (ii) social environment of NMO positively affects network marketers’ social competence and human capital; and (iii) NM specific self-efficacy, desire for opportunity from NM business, social competence and human capital positively affect NM business entrepreneurial action, which in turn, positively affects financial performance.

Review of the literature shows pursuing entrepreneurship is an important activity for network marketers (Sparks and Schenk, 2001, 2006; Dai et al, forthcoming). Some authors have investigated the influence of environment on the decision to pursue entrepreneurial opportunities (Korunka et al., 2003; Taormina and Lao, 2007). Entrepreneurship requires decision and action (McMullen and Shepherd, 2006). Entrepreneurial action is affected by the amount of uncertainty, the willingness to bear uncertainty, and judgment (McMullen and Shepherd, 2006). SCT suggests that people’s entrepreneurial judgments are not objectively rational (Bandura, 1986); they rely on their belief in their own efficacy, which influences the course of action that people choose to pursue (Bandura, 1997). The important sources for people to obtain self-efficacy include the influence of the environment and the training (Bandura, 1997). Dai et al (forthcoming) argue that the social environment of NMO positively influences the self-efficacy of marketers in undertaking NM business, as organized activities provide immigrant network marketers with a venue to socialize with others from their home country/community. In this social environment, immigrant network marketers can meet with others who are successful performers within the business. This allows them to enhance their self-efficacy (Bandura, 1986).

However, self-efficacy is not sufficient to retain Chinese immigrants in NM business, if they do not have the desire for this opportunity (Ajzen, 1991; Krueger, 1993). The desire for profitable opportunities is an important trait of the entrepreneur (Shane and Venkataraman, 2000; McMullen and Shepherd, 2006). It is influenced by the group norm through adding social pressure to act so as to achieve an outcome (Sekerka and Bagozzi, 2007). Based on the SCT (Bandura, 1986) and empirical
support for the impact of the social environment on the desire for opportunity in the literature (Messick and Thorngate, 1967; Malhotra, 2010), we argue that Chinese network marketers’ desire for entrepreneurial opportunity is affected positively by the social environment of NMO.

**Hypothesis 1:** The influence of social environment is positively associated with Chinese immigrant network marketers’ self-efficacy in conducting their business.

**Hypothesis 2:** The influence of social environment is positively associated with Chinese immigrant network marketers’ desire for pursuing opportunities from NM business.

The TPB (Ajzen, 1991) and the literature on entrepreneurial intention (Krueger, 1993) suggest that entrepreneurial intention is determined by both self-efficacy and desire to pursue entrepreneurship. If an individual only has self-efficacy or desire for entrepreneurial opportunity, he/she will not develop the intention to pursue entrepreneurship (Krueger, 1993). To achieve financial results, entrepreneurial actions must be taken (McMullen and Shepherd, 2006). Entrepreneurial intention is the single best predictor of entrepreneurial action (Choo and Wong, 2006). Thus we hypothesize that:

**Hypothesis 3:** There is a positive relationship between Chinese immigrant network marketers’ self-efficacy and network marketing activities undertaken.

**Hypothesis 4:** There is a positive relationship between Chinese immigrants’ desire for entrepreneurial opportunity and network marketing activities undertaken.

Social competence is one of the important business capabilities for network marketers (Hayton and Kelley, 2006), as it provides network marketers with the ability to communicate and cooperate with others (Kauffeld, 2006). Researchers assert that social competence can be learned (Hoehn-Weiss, Brush and Baron, 2004). There is empirical support for the creation of a learning environment by NMO for network marketers to learn the required skills (Dai et al, forthcoming). It is this learning environment and the socialization aspects of the organized training activities which impact positively on the social competence of network marketers (Dai et al, forthcoming).

**Hypothesis 5:** There is a positive relationship between social environment and the social competence of Chinese immigrant network marketers.
The literature has shown that social competence is positively related to business performance (Porath and Bateman, 2006). Business performance relies on actions taken in conducting business activities (McMullen and Shepherd, 2006). The main activities in NM business are selling products, recruiting new network marketers and supporting and training them to do the same things (Biggart, 1989; Sparks and Schenk, 2001, 2006), which involve numerous interactions between network marketers and their prospects. Effectiveness in interacting with others is the mark of social competence (Baron and Markman, 2003). Thus, we hypothesize that:

_Hypothesis 6: There is a positive relationship between network marketers' social competence and the number of NM related activities they will undertake._

The SCT suggests that social reactions are the predictors of primary consequences; people will do things for the approval of others and refrain from actions that arouse the wrath of others (Bandura, 1986). Dai et al (forthcoming) showed that the social environment of NMO has positively affected the motivation of network marketers in conducting their NM business. Motivation of network marketers has been defined narrowly to include only extrinsic factors (Dai et al, forthcoming). Kuntze (2001) and Bhattacharya and Mehta (2000) argued that the motivation of network marketers includes both extrinsic and intrinsic factors. Hence, we hypothesize that:

_Hypothesis 7: There is a positive relationship between social environment and Chinese immigrant network marketers’ motivations in conducting their NM business._

According to SCT, people evoke different reactions from their social environment simply by their physical characteristics, such as their age, size, race, sex, and physical attractiveness (Bandura, 1986). Chinese immigrants are more likely to respond to NMO’s entrepreneurship promotions to pursue entrepreneurship (Dai et al, forthcoming). The most important construct for entrepreneurial traits is the need for achievement (Zhao and Seibert, 2006). The result of their study provided empirical support for the positive relationship between achievement motivation and entrepreneurial activities. They concluded that the higher level of motivation an individual has, the more s/he will desire entrepreneurial opportunity. Thus, we hypothesize that:

_Hypothesis 8: There is a positive relationship between Chinese immigrant network marketers’ motivation and their desire for opportunity._
Bandura (1986) asserts that people select a course of action within their perceived capabilities (Bandura, 1986). Individuals’ motivation level is based on what they believe rather than on what is objectively true (Bandura, 1997). This statement is supported by empirical studies (Carlson et al., 2000; Tai, 2006). Carlson et al.’s (2000) study shows that there is a positive relationship between self-efficacy and motivation to attain achievement. The result in Carlson et al.’s (2000) is supported by Tai’s (2006) empirical study. Thus, we hypothesize that:

\textit{Hypothesis 9: There is a positive relationship between motivation in conducting NM business and NM business-specific self-efficacy.}

One of the important objectives for entrepreneurial activities is to pursue profit (Sadler-Smith et al. 2003). To make a profit, entrepreneurial actions must be taken (McMullen and Shepherd, 2006). Entrepreneurial actions remain at the core of how an entrepreneur stretches to reach his/her objective and improve performance (Kuratko et al., 2001). To make a profit from NM business, network marketing activities must be undertaken (McMullen and Shepherd, 2006), including selling products, recruiting new network marketers and providing support/training (Biggart, 1989; Sparks and Schenck, 2001, 2006).

\textit{Hypothesis 10: There is a positive relationship between network marketing activities undertaken and the financial performance outcome.}

As mentioned above, NMO uses training as an aspect of influencing network marketers to engage with the organization and with others. This has been claimed to be a key characteristic of NMO (Dai et al, forthcoming). Training is an important part of the environment of social influence within MNO. Empirical evidence shows that training is positively related to human capital (Paloniemi, 2006; Eikebrokk and Olsen, 2009). Thus, we hypothesize that:

\textit{Hypothesis 11: There is a positive relationship between social environment and human capital of Chinese immigrant network marketers.}

The empirical evidence provided by Dai et al (forthcoming) suggests that NMO social environment is positively related to self-efficacy. They found that as Chinese immigrant network marketers possess a higher level of self-efficacy, then, they will stay longer with the network
marketing business; resulting in a positive accumulation of experience in network business. This
finding is consistent with the SCT (Bandura, 1986). Thus, we hypothesize that:

*Hypothesis 12: There is a positive relationship between the human capital of Chinese
immigrant network marketers and network marketing activities undertaken.*

Human capital theory suggests that experience is a valuable asset in enhancing organisational
productivity and economic value (Shrader and Siegel, 2007). Eikebrokk and Olsen (2009) and
Paloniemi (2006) have shown that training can result in improved level of skills and competencies
(aspects of human capital), which resulted in entrepreneurial performance (Hitt, et al., 2006).
Therefore, we expect the presence of human capital to impact positively on the financial performance
of network marketers.

*Hypothesis 13: There is a positive relationship between the human capital of Chinese
immigrant network marketers and the financial performance outcome.*

Based on the above hypotheses, we propose the following path model:

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Insert Figure 1 about here
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**Method**

Prior to sending the questionnaire for the survey, we conducted four focus group interviews.
Each focus group comprised of six to eight Chinese network marketers. In addition, a pilot study was
conducted to validate the questionnaire items. Exploratory factor analysis was performed.
Confirmatory factor analysis was conducted with AMOS 17 (please contact the first author for the
items used in the measurement model).

Data collection was composed of two parts: (i) subjective data; and (ii) objective performance
data. Data were collected at various training venues for Chinese immigrant network marketers in New
South Wales, Victoria and Queensland. With the permission of a direct selling firm and institutional
ethics clearance, we matched the data with objective performance data provided by the direct selling
firm.
Measures

Motivation to conduct NM business (formative measure) was measured with 24 items. Eighteen items were adopted from Kuntze (2001), six were generated from focus group interviews. Respondents were asked to indicate how accurately each one of the statements described the motivation for them to pursue NM business on a five-point Likert scale, where ‘1’ = strongly disagree and ‘5’ = strongly agree.

This measurement was re-conceptualized, 18 items used to measure extrinsic and intrinsic factors developed by Kuntze (2001) and six items used to measure motivation of establishing one own business (Dai et al, forthcoming). The re-conceptualized measurement for motivation is more comprehensive than the original one, because the satisfaction needs that network marketers pursue include three components: (i) establishment of one’s own business; (ii) extrinsic satisfactions; and (iii) intrinsic satisfactions (Biggart, 1989; Bhattacharya and Mehta, 2000; Pratt, 2000). Sample item includes ‘To buy all of the toys, cars, boats, vacation homes’, ‘To better use my skills’, and ‘To start up my own business without financial pressure’. According to Jarvis et al. (2003) the construct of motivation should be formative.

Influence of NMO social environment (reflective measure) was measured by 18 items generated from Sparks and Schenk (2001, 2006) and focus group interviews. Respondents were asked to indicate how accurately each one of the statements of sample items described influence them on a five-point Likert scale, where ‘1’ = strongly disagree and ‘5’ = strongly agree. Sample item includes ‘My sponsor and other uplines lead “doing” rather than “telling”’.

Desire for entrepreneurial opportunity (reflective measure) was measured with 12 items, based on the research by Krueger (1993) and additional items developed from the focus groups. Respondents were asked to indicate how accurately each statement described their desire for opportunity on a five-point Likert scale, where ‘1’ = strongly disagree and ‘5’ = strongly agree.

NM business specific self-efficacy (reflective measure) was measured with 12 items from Krueger (1993) and focus group interviews. Respondents were asked to indicate how accurately each one of the statements described their capabilities in conducting NM business on a five-point Likert scale, where ‘1’ = very hard/absolutely not sure to and ‘5’ = very easy/absolutely sure.
Social competence (formative measure) was measured with 17 items adapted from Baron and Markman (2003). Respondents were asked to indicate how accurately each statement described their social competence on a five-point Likert scale, where ‘1’ = strongly disagree and ‘5’ = strongly agree.

Human capital. Our literature review did not uncover any scales measuring human capital in NMO. We multiplied months of experience in conducting NM by the number of weekly hours working on the business, as a proxy measure for human capital.

NM business entrepreneurial actions (reflective measure). To measure this variable, seven items were adapted from Sparks and Schenk (2001) and focus group interviews. Respondents were asked to indicate how much time they spent on conducting business activities weekly on a five-point Likert scale, where ‘1’ = least time and ‘5’ = most time.

Financial performance outcome was measured with objective data (weekly income) obtained from the database of a direct selling firm.

Data Analysis

The hypothesized model of NM specific performance is composed of formative and reflective constructs. SmartPLS (Ringle et al., 2005) was used to test the hypotheses. The significance of each variable to one another is determined according to the bootstrap procedure (500 sub-samples).

We took a number of steps to address validity and reliability of reflective and formative scales (Petter, Straub and Rai, 2007; Chin, 2010). Variance Inflation Factors (VIF) index for these scales were all less than 3.33, which shows that multicollinearity is of no major concern (Cenfetelli and Bassellier 2009). To prevent common method variance (CMV), objective dependent variable and independent variables were collected from two different sources (Podsakoff et al., 2003). We also used Harman’s ex post one factor test to ensure that the current study did not suffer from common method variance. The analysis showed that there were 20 factors (with eigenvalues greater than 1.0). These variables explained 72.6 percent of the variance. Both of these tests provided some confidence that CMV is not an issue.

Findings

The total useable questionnaires collected were 227 (representing a response rate of 51.8 percent). Most of the respondents were females (73.6 percent). They were aged between 18 to more
than 60 years, with the majority in the range of 31-50 years. A large number of the respondents considered themselves as not very proficient in English (41.2 percent). In general, they were educated. 68.7 percent have university degrees. Their experience in conducting NM business ranged from 1 to 119 months (mean of 28.56 months). They worked 23 hours per week on NM business (SD = 15.63 hours).

Table 1 shows the means, standard deviations, and intercorrelations of the variables in the study. The correlation coefficients show that the dependent variable (financial performance) is strongly correlated to human capital and NM business entrepreneurial actions. The model developed in the current study has a medium level of goodness of fit (GOF=0.3345) and the R-square of the dependent variable, financial performance, is moderate (R-square =0.430). As shown in Table 2, all of our hypotheses were supported.

Discussion and Implications

The main objective in the current research is to examine the causal relationships of the independent variables on the financial performance of Chinese network marketers. The results show that the financial outcome of the performance is determined by actions undertaken by Chinese network marketers in conducting their NM business and their NM operational experience. Our findings are consistent with the literature review (McMullen and Shepherd, 2006; Baron and Markman, 2003) that social competence positively affects entrepreneurial actions.

In the current study, we incorporated both extrinsic and intrinsic factors to operationalise the motivation of network marketers in establishing their own business. The re-conceptualized construct is more comprehensive because it reflects Chinese immigrant network marketers’ need for career (Sequeira and Rasheed, 2006), social satisfaction and economic satisfaction (Bhattacharya and Mehta, 2000).

As well as SCT (Bandura, 1986), we also integrated the TPB (Ajzen, 1991) and entrepreneurial intention (Krueger, 1993) to the extended model. Our main theoretical contributions
include: (i) confirmation of the impact of influence of social environment of NMO on self-efficacy and social competence suggested in the original model; (ii) examination of the impact of self-efficacy and desired for opportunity on the NM business entrepreneurial actions based on the TPB in the context of NMOs; (iii) provision of statistical evidence in this study, based on the large sample; and (iv) testing of the re-conceptualized model using PLS Modeling in order to examine the formative properties of social competence and motivation scales.

Our findings show that the social environment within NM organizations positively leads to the development of immigrants’ self-efficacy in NM business, their desire for opportunities, social competence, and human capital. These factors have led to an increase in the activities undertaken by Chinese immigrants in conducting their network marketing business. Social environment also impacts positively on their motivation to participate in NM business. These factors have a positive impact on their financial performance outcome.

The current research has some limitations. Firstly, like all cross-sectional research, the data was collected at a single point in time. Therefore, the current research cannot explain the effects of time on the relationship posited in the model. Secondly, the sample of this study only focused on Chinese immigrants in Australia. To generalize the findings of this study, more studies with heterogeneous samples are needed. Issues associated with the ethnicity and immigrant status should also be addressed in future.

**Conclusion**

We have expanded the model in our previous study to a new model in the current study to explain the factors that affect the financial performance outcome of Chinese immigrant network marketers in conducting their business. We incorporate formative characteristics of social competence and motivation into the extended model. We also incorporated human capital, desire for opportunity and financial performance outcome into the model in order to identify the relationships of the variables. SmartPLS enabled us to analyse the model composed of both reflective and formative constructs (Wetzels et al., 2009).

In summary, we have shown that the financial performance outcome of Chinese network marketers is positively influenced by the actions undertaken and the experience of these network
marketers in conducting NM business. We have applied the TPB to show that the planned actions undertaken by Chinese network marketers in conducting NM business are caused by their desire for opportunity and self-efficacy in conducting NM business. TPB suggests entrepreneurial intention is caused by both self-efficacy and desire for opportunity and entrepreneurial intention directly causes entrepreneurial action. Accordingly, we hypothesized and confirmed with testing that network marketing business entrepreneurial action is caused by self-efficacy and desire for opportunity.

References


assessing hierarchical construct models: Guidelines and empirical illustration”, *MIS

Zhao, H., and Seibert, S. E. (2006). The big five personality dimensions and entrepreneurial status: A
Figure 1 Hypothesized Model of Network Marketing Business Entrepreneurial Performance

- Motivation
  - H7+
  - H8
  - H9+

- Environmental Influence
  - H7+
  - H11+

- Self-efficacy
  - H1 +
  - H2+
  - H4 +

- Desire
  - H3 +
  - H6 +

- Social competence
  - H5 +

- Human Capital

- Actions
  - H12+
  - H10+

- Financial Performance
  - H13 +
Figure 2. Results of Path Analysis
Table 1. Means, standard deviations, and correlations of variables

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<th>SD</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<td>1. Environmental influence</td>
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<td>8.34</td>
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<td>14.10</td>
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<td>.34**</td>
<td>.25**</td>
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<td>4. Self-efficacy</td>
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<td>.27**</td>
<td>.39**</td>
<td>.45**</td>
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<td>5. Social competence</td>
<td>51.45</td>
<td>7.19</td>
<td>.24**</td>
<td>.31**</td>
<td>.23**</td>
<td>.56**</td>
<td>1.00</td>
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<td>6. Human capital</td>
<td>986.85</td>
<td>1187.08</td>
<td>.16</td>
<td>.10</td>
<td>.32**</td>
<td>.20*</td>
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<td>7. NM entrepreneurial Action</td>
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<td>.49**</td>
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<td>8. Financial outcome</td>
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<td>1.56</td>
<td>.08</td>
<td>.15*</td>
<td>.38**</td>
<td>.31**</td>
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<td>.70**</td>
<td>.58**</td>
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Note: N = 227

* p < 0.05, ** p < 0.01

Italicised and underlined values indicate square root of Average Variance Estimates (discriminant validity of reflective scales)
<table>
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<th>Hypotheses</th>
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<tr>
<td>H1: Social environment influence of NMO → Self-efficacy</td>
<td>0.145</td>
<td>2.097</td>
<td>*</td>
<td>supported</td>
</tr>
<tr>
<td>H2: Self-efficacy → Network marketing entrepreneurial actions</td>
<td>0.155</td>
<td>2.122</td>
<td>*</td>
<td>supported</td>
</tr>
<tr>
<td>H3: Social environment influence of NMO → Desire for opportunity</td>
<td>0.368</td>
<td>6.193</td>
<td>***</td>
<td>supported</td>
</tr>
<tr>
<td>H4: Desire for opportunity → Network marketing entrepreneurial action</td>
<td>0.295</td>
<td>5.142</td>
<td>***</td>
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</tr>
<tr>
<td>H5: Social environment influence of NMO → Social competence</td>
<td>0.274</td>
<td>4.155</td>
<td>***</td>
<td>supported</td>
</tr>
<tr>
<td>H6: Social competence → Network marketing entrepreneurial action</td>
<td>0.181</td>
<td>2.507</td>
<td>*</td>
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</tr>
<tr>
<td>H7: Social environment influence of NMO → Motivation</td>
<td>0.448</td>
<td>7.406</td>
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</tr>
<tr>
<td>H8: Motivation → Desire for opportunity</td>
<td>0.138</td>
<td>1.993</td>
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</tr>
<tr>
<td>H9: Motivation → Self-efficacy</td>
<td>0.324</td>
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<tr>
<td>H10: Network marketing entrepreneurial Action → Financial performance</td>
<td>0.403</td>
<td>8.441</td>
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</tr>
<tr>
<td>H11: Social environment influence of NMO → Human capital</td>
<td>0.131</td>
<td>2.252</td>
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<tr>
<td>H12: Human capital → Network marketing entrepreneurial action</td>
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</tr>
<tr>
<td>H13: Human capital → Financial performance</td>
<td>0.369</td>
<td>7.485</td>
<td>***</td>
<td>supported</td>
</tr>
</tbody>
</table>

* p < 0.05, ** p < 0.01, ***p<.001