

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: <http://www.elsevier.com/locate/kjss>

Structural equation modeling of a potentially successful person in network marketing

Rattana Hiranpong ^{a,*}, Pasu Decharin ^b, Natcha Thawesaengskulthai ^c

^a Technopreneurship and Innovation Management Program, Chulalongkorn University, Bangkok 10330, Thailand

^b Faculty of Commerce and Accountancy, Chulalongkorn University, Bangkok 10330, Thailand

^c Department of Industrial Engineering, Chulalongkorn University, Bangkok 10330, Thailand

ARTICLE INFO

Article history:

Received 12 December 2014

Received in revised form

18 February 2015

Accepted 24 February 2015

Available online xxx

Keywords:

Network marketing

Structural equation modeling

Successful person

Phalanuphap

ABSTRACT

This study developed a structural equation model to explain the attributes of a potentially successful person in network marketing. The researcher collected data on 400 network marketers, from 10 companies, who had been in business seriously for at least 2 years. The results showed that a potentially successful person in network marketing exhibited four latent variables: 1) unsatisfied valued life-desire discrepancy 2) effectiveness of choice in closing the gap on discrepancies 3) Phalanuphap—power to move people, and 4) assertiveness when significant others have become an obstacle. There is a causal relationship between these latent variables and success in network marketing, and the structural equation modeling of potentially successful persons in network marketing which was developed in this study fits well with the empirical data.

Copyright © 2016, Kasetsart University. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

In Thailand, network marketing is an important type of business which relates to many people. In 2002, the total market value of direct-sales business (including both single-level and multi-level direct-sales marketing) equaled 27,760 million baht, and increased to 68,700 million baht in 2012 (Chunhachatcharachai, 2013). The number of people involved in Thailand's direct-sales marketing consisted of up to 10,900,000 direct-sales members (both consumers and businessmen) in 2012, which is the highest number in the

Asia–Pacific region (World Federation of Direct Selling Association, 2012).

Although the size is big and the growth rate is high, only a few succeed in network marketing. Taylor (2011) found that only 1 out of 238 distributors could gain benefits from network marketing. The average failure rate and loss rate of network marketing distributors was 99.6 percent, which is higher than the failure rate for starting a small businesses which is only 61 percent.

Distributors who fail in network marketing waste their money and time and lose their confidence. Organizations and existing distributors waste time and money in training

* Corresponding author.

E-mail address: nickee_k@hotmail.com (R. Hiranpong).

Peer review under responsibility of Kasetsart University.

<http://dx.doi.org/10.1016/j.kjss.2016.01.009>

2452-3151/Copyright © 2016, Kasetsart University. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

new distributors and cannot expand their business continuously.

How could the failure rate of network marketers be decreased? This paper investigates one solution to this problem. The development of a structural equation model (SEM), based on reviewing the literature and interviewing the experts, to explain a potentially successful person in network marketing, could help network marketers to recruit more potentially successful people to their network and decrease the rate of failure in the business.

Literature review and research framework

From related literature, the researcher observed the following gaps. Firstly, there is no study focus only on factors related to a person “before” joining network marketing. Secondly, studies on causal relationships between variables and success in doing network business are very few. Thirdly, factors which were explored in previous studies can be measured based on many theoretical concepts, including leadership and motivation among others. Nevertheless, these theoretical concepts might not be appropriate for the study in the network marketing context.

After reviewing the literature and interviewing successful network marketers, a research framework was developed. There are many factors affecting success in network marketing. In this study, only factors related to individuals “before” joining network marketing were studied.

Components of a potentially successful person in network marketing

Unsatisfied valued life-desire discrepancy (DESIRE)

From previous studies on motivation to join network marketing, Adagbon (2007) and Changbangjong (2012) proposed a list of incentives but no conceptual framework. Wannakulpong (2010) used McClelland's Acquired Needs while Tan (2003) used Vroom's Expectancy Theory.

There are various motivation theories. Findings from the interviews with two highly successful network marketers indicated that these two people joined network marketing because they had an unsatisfied valued life-desire discrepancy. This is particularly relevant to cognitive dissonance theory which indicates that a discrepancy increases dissatisfaction that causes changes in thoughts, attitude, and behavior (Mehay, 2012). This theory fits very well with the network marketing context because recruiting people into network marketing depends on motivating and changing beliefs, attitudes, and behavior.

Ineffectiveness of career choices in closing the unsatisfied discrepancies (INEFFE)

Decision making on whether to join a network business depends on the rationality of each individual which Brown (2004) (as cited in Sumalee, n.d.) explains is based on two components.

The first is the evaluation of the efficiency of alternatives in achieving the goal. In the context of network marketing, a reasonable person will evaluate all possible alternatives to see

whether they can close the discrepancy. If the person considers that their present job and all possible alternatives are ineffective to achieve the targeted goal (that is, to have more money and to have enough time to do things as desired), when hearing about an opportunity in network marketing, that person will have a higher tendency to become stimulated to enter network marketing than those whose available alternatives may be able to reduce or close the existing discrepancy.

Secondly, the actions are stimulated by self-interest. This dimension has similar characteristics to the level of unsatisfied valued life-desire discrepancy.

Therefore, only the first dimension of rational choice theory has been included in the model.

Phalanuphap—power to move people (PHALA)

Existing research on network marketing has used a variety of theories to explain leadership. Kitkamhang (2010) used a trait approach to emphasize leaders' qualities and skills. Veerachivin (2004) and Wongklud (2008) used behavioral school theories of leadership to study leaders who were successful in network marketing. Moreover, theories considering leaders and followers have been used in research related to successful network marketers too, especially transformational leadership theory (Somboonma, 2008; Wannakulpong, 2010).

Transformational leadership theory might be able to explain the relationship between leaders and followers better than the trait and behavioral approach in a network marketing context. However, it still can't explain the way that leaders move their followers in all dimensions—for example, it does not explain how leaders can force others to follow. But there is another theory which is able to explain this relationship in a more thorough way—the Phalanuphap theory (Chareonwongsak, 2014).

Chareonwongsak (2014) explains that the attribute of a person which allows him/her to drive other people to do or not do something to a certain extent is called Phalanuphap which consists of four elements: 1) Power (ability to “force” other people to follow even though they do not want to); 2) Influence (ability to “persuade” other people to agree and follow); 3) Sutta or Admired Trust (ability to make other people follow because they believe, trust, and have confidence in their leaders) and 4) Ba-ra-mee or Epitomized Respect (people are willingly to follow because they respect the good deeds that a person has been committing throughout their life and follow them as inspiration).

Importantly, Chareonwongsak (2014) also explained that the foundation of Phalanuphap consists of 30 factors that are also included in the model. They are: 1) money, 2) reputation, 3) position in organization/society, 4) knowledge, 5) role, 6) education, 7) rank or title, 8) award, 9) connection, 10) experience, 11) family background, 12) estate (*ta-nun-dorn*), 13) physical attraction, 14) brand, 15) personality, 16) expertise, 17) performance, 18) rhetoric, 19) foresight, 20) first move, 21) patronage, 22) ideation, 23) information, 24) culture, 25) tradition, 26) skills, 27) virtues, 28) favor, 29) popularity, and 30) damagability. Knowing the foundation of Phalanuphap will be helpful in developing the structural equation model of a potentially successful person in network marketing, since

most leadership theories do not explain how leadership is determined.

Being assertive when significant others have become an obstacle (ASSERT)

Swanson, Daniels, and Tokar (1996) studied career-related barriers and developed the Career Barriers Inventory (CBI) and the CBI-Revised (CBI-R) which consists of 70 items in 13 sections. A major obstacle for a potentially successful person in network marketing is disapproval of significant others, such as parents, partners, close friends, or relatives. Lent, Brown, and Hackett (2000, p.38) point out that family involvement is an important factor affecting career choices.

Success in doing network business

According to the synthesis of the components for success in network marketing and the studies of Delgado (2000), Tan (2003), Veerachivin (2004), Taweepongsatorn (2005), Somboonma (2008), Kitkamhang (2010), Wannakulpong (2010), and Sapsuwan (2013), in past studies, there were measures of success in doing network business using 18 variables. Therefore, any variable used to measure the success of a network marketer should be considered as follows. First, it must be a variable that can clearly distinguish those who succeed in network business at high and low levels. Second, it must reflect the actual capacities of a network marketer. With the mentioned criteria, this study then measures the success using four variables: current position in the organization, average income earned from doing network business, financial freedom, and performance measured by the number of successful team members.

Research methodology and findings

A questionnaire was developed according to the research framework. There were five parts in the questionnaire in order to measure five latent variables. Part one collected general data on the respondents and measured success in doing network business. Part two was adapted from Michalos (1985) (cited in Brown, Kasser, Ryan, Linley, & Orzech, 2009) and Solberg, Diener, Wirtz, Lucas, and Oishi (2002) to collect data on unsatisfied valued life-desire discrepancy. Parts three and five were developed by the researcher to collect data on ineffectiveness of choice in closing the gap on discrepancies and Phalanuphap, respectively. Lastly, part four was adapted from Swanson et al. (1996) to collect data on being assertive when significant others have become an obstacle.

The content validity was examined by five experts and the item-objective congruence (IOC) was calculated. It was found that the IOC of every question was higher than the criterion level of 0.5 (Vanichbuncha, 2009). Then, a sample of 30 persons was collected for a pilot study and the reliability of the questionnaire was calculated using Cronbach's alpha coefficient which was higher than the criterion level of 0.6 (Nunnally, 1978) as shown in Table 3.

A sample of 400 network marketers having a minimum of 2 years experience in network business was taken using multi-

Table 1 – Choices of model specification.

Model	Label	Hypothesized relationship
1	Additive1 ^a	SUCCESS = DESIRE + INEFFE + PHALA + ASSERT
2	Additive2	SUCCESS = Σ DESIRE + Σ INEFFE + PHALA + ASSERT
3	Multiplicative ^b	SUCCESS = (Σ DESIRE \times Σ INEFFE) + PHALA + ASSERT

^a Additive = A situation in which the best estimate of a dependent variable is obtained by simply adding together the effects of each independent variable. Additivity implies the absence of interactions.

^b Multiplicative = A situation in which the direction and/or magnitude of the relationship between two variables depends on (i.e., differs according to) the value of one or more other variables (Microsirris.com, 2015).

stage sampling. In the first stage, simple random sampling was used to draw 10 from 400 multi-level marketing companies. Then, in the second stage, purposive sampling was used to take 40 network marketers from each company. After that, missing data, univariate and multivariate outliers, and the normality of the data were examined resulting in 390 samples being left for the analysis.

Hypotheses

In this research, four hypotheses were tested:

H1. Unsatisfied valued life-desire discrepancy in the period before joining a network business has a significantly positive relationship with success in a network business.

H2. Ineffectiveness of choice in closing the gap on discrepancies before joining a network business has a significantly positive relationship with success in a network business.

H3. Phalanuphap in the period before joining a network business has a significantly positive relationship with success in a network business.

H4. Being assertive when significant others have become an obstacle in the period before joining a network business has a significantly positive relationship with success in a network business.

Evaluation of measurement model

The model was specified based on a combination of theories, empirical results from previous research, and informed judgment. There are three possible choices in the model specification (Table 1). Models 1, 2 and 3 were tested and Model 3 showed the best fit compared to Models 1 and 2 as expected. Variables that were included in the final measurement model are illustrated in Table 2.

Model analysis involved estimation using the Maximum Likelihood (ML) method as the data was multivariate normally distributed. To assess the fit between observed data and the

Table 2 – Variables in the measurement model.

Latent variable	Observed variables	How to measure
DESIRE = Unsatisfied valued life-desire discrepancy	DESIRE1 = Your financial status before joining network business compared to what you desire DESIRE2 = Your financial status before joining network business compared to 3 years prior to joining the business DESIRE3 = Your financial status before joining network business compared to your friends' average financial status DESIRE4 = Your debt burden before joining network business compared to what you desire (no debt) DESIRE5 = Your debt burden before joining network business compared to 3 years prior to joining the business DESIRE6 = Amount of time you have to do things you want before joining the business compared to amount of time you desire DESIRE7 = Amount of time you have to do things you want before joining the business compared to 3 years prior to joining the business	Two items representing each of these discrepancies were used (Michalos, 1985). 1) To assess desire discrepancy in each dimension—responses were made on a 1–7 scale (better to worse); 2) how acceptable is the gap—responses were made on a 1–7 scale (most acceptable to not at all acceptable)
INEFFE = Ineffectiveness of career choices in closing the unsatisfied discrepancies	1) Before joining a network business, was it possible that your job could achieve these goals? - INEFFE1 = to have financial status that you desire - INEFFE2 = to pay off your debt - INEFFE3 = to have amount of time to do things you want 2) Before joining a network business, was it possible that all of your other career choices could achieve these goals? - INEFFE4 = to have financial status that you desire - INEFFE5 = to pay off your debt - INEFFE6 = to have amount of time to do things you want	Likert scale 1–9, (1 = No problem at all, to 9 = Impossible)
PHALA = Phalanuphap – Power to move people	P2 = Ability to persuade or drive other people by showing love/sincerity or reason/information, P3 = Ability to make people follow because of trusting and believing in you, P4 = Other people are willing to follow you because you are an idol, an inspiration, a sanctuary as an epitome	Likert scale 1–9, (1 = Don't have at all, to 9 = Have the most)
ASSERT = Being assertive when significant others have become an obstacle	A1 = Being assertive when parents disagree, A2 = Being assertive when partner disagrees, A4 = Being assertive when friends/relatives disagree	Likert scale 1–9, (1 = Change my mind every time (100%), to 9 = Never change my mind at all (0%))
SUCCESS = Success in doing network business	log_NIC log_DL Log_RPOSI	Average income/month from network mkt (log transformed) Number of team members who have net income per month at least 100,000 baht (log transformed) Order of current position compared to total number of positions in the company (log transformed)
$DINEF = \sum DESIRE \times \sum INEFFE$	DINEF123 DINEF45 DINEF67	$(DESIRE1 + DESIRE2 + DESIRE3) \times (INEFFE1 + INEFFE4)$ $(DESIRE4 + DESIRE5) \times (INEFFE2 + INEFFE5)$ $(DESIRE6 + DESIRE7) \times (INEFFE3 + INEFFE6)$

Table 3 – Result of adjusted measurement model.

Latent variable	Item	Standardized factor loadings	Standard error (SE)	Critical ratio	Composite reliability (CR)	Average variance extracted (AVE)	Cronbach's alpha coefficient
DINEF	DINEF123	0.859	–	–	0.795	0.567	0.828
	DINEF45	0.696	0.078	11.589			
	DINEF67	0.692	0.090	11.554			
PHALA	P2	0.696	–	–	0.800	0.576	0.793
	P3	0.897	0.096	11.472			
	P4	0.663	0.081	11.566			
ASSERT	A1	0.724	0.100	9.902	0.751	0.502	0.659
	A2	0.730	–	–			
	A4	0.669	0.092	9.842			
SUCCESS	log_NIC	0.891	–	–	0.782	0.551	0.763
	log_DL	0.696	0.059	10.809			
	Log_RPOSI	0.613	0.013	10.118			

hypothesized model, these indices were considered: Chi-square statistics and degree of freedom ratio (χ^2/df) (≤ 2 or 3), goodness-of-fit index (GFI) (≥ 0.90), adjusted goodness-of-fit index (AGFI) (≥ 0.90), comparative fit index (CFI) (≥ 0.90), standardized root mean squared residual (SRMR) (≤ 0.08) (Hu and Bentler, 1999), and root mean square error of approximation (RMSEA) (≤ 0.06) (Steiger, 2007).

From the analysis, it was found that the goodness-of-fit indices of Model 3 satisfied all the criteria in the measurement (shown in parentheses after each statistic) with $\chi^2/df = 2.867$ (≤ 2 or 3), GFI = 0.945 (≥ 0.90), AGFI = 0.911 (≥ 0.90), CFI = 0.937 (≥ 0.90), SRMR = 0.057 (≤ 0.08), RMSEA = 0.069 (≤ 0.07).

Then, convergent validity and discriminant validity were assessed in order to examine construct validity. For convergent validity, the three criteria to consider are: 1) standardized factor loading must have statistical significance of at least 0.3 (Angsuchoti, Wijitwanna, & Pinyopanuwat, 2008); 2) composite reliability (CR) of the construct must have a value of at least 0.6; and 3) average variance extracted (AVE) must have a value of at least 0.5 (Diamantopoulos & Siguaw, 2000). The adjusted measurement model of Model 3 had convergent validity fulfilled as shown in Table 3.

Fornell and Larcker (1981) suggested that any two latent variables will have discriminant validity if both variables have an AVE greater than the squared correlation between them. Table 4 shows that all pairs of the latent variables have discriminant validity.

Evaluation of structural model

It was found that the model fitted satisfactorily with the data. Goodness-of-fit indices fitted all the criteria: $\chi^2/df = 2.020$ (≤ 2 or 3), GFI = 0.925 (≥ 0.90), AGFI = 0.902 (≥ 0.90), CFI = 0.914 (≥ 0.90), SRMR = 0.0586 (≤ 0.08), and RMSEA = 0.051 (≤ 0.07).

From Table 5, DINEF or unsatisfied valued life-desire discrepancy (DESIRE) multiplied by ineffectiveness of career choices in closing the unsatisfied discrepancies (INEFFE) is perceived to be the most important criteria in screening for a potentially successful person in a network business (standardized loading factor = 0.214) followed by Phalanuphap (power to move people) (PHALA; 0.107) and being assertive

when significant others have become an obstacle (ASSERT; 0.091).

The control variables are ZPREIN (standard score of average monthly income of a person “before” joining the network marketing), HRWORK (average number of hours per day spent working in network marketing) and MPRO1 (company whose main product is consumer products). Factors that affect Phalanuphap are: knowing a lot of people (P5), having a high position in the organization and having a lot of subordinates (P6), having imitation skills and being able to learn and develop new skills quickly (P35), and having sales experience (P48).

Discussion and research implications

The results from the data analysis shows that all hypotheses are supported. It was found that the variable DINEF has an effect on success in doing network business. It can be interpreted as being an unsatisfied valued life-desire discrepancy in the period before joining a network business together with ineffectiveness of career choices in closing the unsatisfied discrepancies (INEFFE) having a positively significant relationship with success. Consequently, hypotheses H1 and H2 are accepted.

Hypothesis H1 (unsatisfied valued life-desire discrepancy in the period before joining a network business has a significantly positive relationship with success in a network business) is supported. This might be because when a person perceives they have an unsatisfied valued life-desire discrepancy, they will realize the importance of change as Miller and Rollnick (2002, p.22) stated “if there is no discrepancy, there is no motivation”. Therefore, when a person

Table 4 – Discriminant validity of constructs.

Construct	DEINEF	PHALA	ASSERT	SUCCESS
DINEF	0.567			
PHALA	0.001	0.576		
ASSERT	0.000	0.000	0.502	
SUCCESS	0.038	0.007	0.010	0.551

Diagonal values (shaded cells) represent the average variance extracted while the other entries represent the squared correlations.

Table 5 – Path coefficient and hypothesis testing.

Hypothesis	Relationship	Standardized factor loadings	p-value	Supported
H1 and H2	DINEF → SUCCESS	0.214	0.000*	Yes
–	DINEF → DINEF123	0.864	0.000*	–
–	DINEF → DINEF45	0.691	–	–
–	DINEF → DINEF67	0.685	0.000*	–
H3	PHALA → SUCCESS	0.107	0.040	Yes
–	PHALA → P2	0.712	–	–
–	PHALA → P3	0.835	0.000*	–
–	PHALA → P4	0.706	0.000*	–
–	P5 → PHALA	0.143	0.004	–
–	P6 → PHALA	0.139	0.005	–
–	P35 → PHALA	0.489	0.000*	–
–	P48 → PHALA	0.119	0.016	–
H4	ASSERT → SUCCESS	0.091	0.097	Yes
–	ASSERT → A1	0.723	0.000*	–
–	ASSERT → A2	0.731	–	–
–	ASSERT → A4	0.668	0.000*	–
–	ZPREIN → SUCCESS	0.305	0.000*	–
–	HRWORK → SUCCESS	0.297	0.000*	–
–	MPRO1 → SUCCESS	0.107	0.023	–

* $p < .001$.

recognizes their unsatisfied financial or time discrepancy, they are motivated to join in network marketing and work until they succeed. This result is consistent with existing research such as Wannakulpong (2010) who found that network marketers who experience high levels of success in their career are more highly motivated. Also, Kitkamhang (2010) found that motivation affects success in network marketing.

For hypothesis H2, the results supported that ineffectiveness of career choices in closing the gap on discrepancies in the period before joining a network business has a significantly positive relationship with success in a network business. This is probably because all people naturally desire to have a better quality of life. If all the alternatives they have are ineffective in meeting their needs, they might seek new alternatives, especially in choosing a career. So, if a person considers that all their career choices are ineffective, they will be motivated to join and work in the network business until they succeed.

The results also showed that the level of Phalanuphap (the power to move people) in the period before joining a network business has a significantly positive relationship with success in a network business, which supports hypothesis H3. This is probably because network business relies on the relationship. People are invited to be part of the network, so those who can persuade others to join the network and can be a good leader would be much more successful than those who cannot. This is consistent with the studies of Somboonma (2008) and Wannakulpong (2010) which found that highly successful individuals are those who have higher leadership skills than those who are less successful.

Considering the last hypothesis (H4—being assertive when significant others have become an obstacle in the period before joining network business has a significantly positive relationship with success), in the researcher's opinion, being a network marketer might mean having to face rejection or disapproval from people we care about. These significant

others can affect a person's decision to continue or stop doing network business. Therefore, to be assertive when being rejected or disapproved of from those we care about is important to succeed in network business.

The research implications can be divided into two parts:

Recommendations for company or network marketers

- 1) Network marketers can use observed and latent variables in the structural model developed in this research as criteria for screening potential prospects. Using these variables as criteria is reliable as it was proved empirically that they are related to doing network business successfully.

For example, one network marketer has five friends. By knowing about and talking to his friends and keeping these four criteria in mind, he found that compared to the rest, Friend A has the highest unsatisfied valued life-desire discrepancy in terms of financial status and the amount of time he wants to have. Friend A is looking for a way to narrow his desire discrepancy and also has the most influence (Phalanuphap) on the people around him. Therefore, this network marketer should share a network business opportunity with Friend A, primarily because according to the criteria found in this study, Friend A has the highest potential to succeed in the network business if he decides to join.

- 2) Organizations and leaders in network business can use this framework to develop their personnel in dimensions that will make their teams more successful in network business. For example, a leader found out that his team members lacked Phalanuphap as they could not succeed in making people follow them nor could they persuade other people to join the network. Therefore, in order to improve their Phalanuphap, a training course on this topic should be organized for the team.

Recommendations for future research

Interested researchers may apply this conceptual framework to study people in other fields such as politicians, those working in general sales or in insurance or those whose work is related to building other types of networks. Moreover, besides the factors related to a person “before” joining a network business investigated in this study, factors related to a person “after” joining a network business—such as satisfaction in doing network business (Delgado, 2000), attitude toward company's products etc., and factors not related to the individual, like the marketing plan—can be studied in future research as well.

Conclusion

Even though there seemed to be many studies on network marketing which were related to factors affecting success in network marketing, most of these studies studied factors which were related to people after they had entered the network business. It is not appropriate to use those studies as an approach to search for “people who have not yet entered the network business” to recruit them into the network business. According to this study, a potentially successful person in the network business possesses the following related components: 1) unsatisfied valued life-desire discrepancy and possible alternatives are inefficient at reducing or closing such discrepancies; 2) high Phalanuphap; and 3) being assertive despite obstruction from significant others. The data analysis found that the model created had a good fit with the empirical data.

Conflict of interest

None.

REFERENCES

- Adagbon, G. (2007). *Multilevel marketing: The paradox of autonomy* (Unpublished master's thesis). Available from ProQuest Dissertations & Theses Global. (Order No. MR31974).
- Angsuchoti, S., Wijitwanna, S., & Pinyopanuwat, R. (2008). *Statistics for social science and behavioural science: How to use LISREL*. Bangkok, Thailand: Mission Media (in Thai).
- Brown, D. K. (2004). *Social blueprints: conceptual foundations of Sociology*. USA: Oxford University Press.
- Brown, K. W., Kasser, T., Ryan, R. M., Linley, P. A., & Orzech, K. (2009). When what one has is enough: mindfulness, financial desire discrepancy, and subjective wellbeing. *Journal of Research in Personality*, 43, 727–736.
- Changbangjong, U. (2012). *Reasons and motivation for conducting network business in Chiangmai province* (Unpublished master's thesis). Retrieved from http://webpac.library.mju.ac.th:8080/mm/fulltext/thesis/2556/uraiporn_changbangjong/abstract.pdf (in Thai).
- Chareonwongsak, K. (2014). Araya-phalanuphap. *Rattasapa Sarn*, 62(1), 91–99 (in Thai).
- Chunhachatcharachai, S. (2013). *Network business in Thailand. Gateway* (in Thai).
- Delgado, H. (2000). *The impact of the recruiting and training practices on the success in the network marketing* (Unpublished doctoral dissertation). Available from ProQuest Dissertations & Theses Global. (Order No. 9956514).
- Diamantopoulos, A., & Siguaw, A. D. (2000). *Introducing LISREL: A guide for the uninitiated*. London, UK: Sage.
- Fornell, C., & Larcker, D. (1981). Structural equation models with unobservable variables and measurement error: algebra and statistics. *Journal of Marketing Research*, 18, 382–388.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55.
- Kitkamhang, O. (2010). Analysis of causal factors affecting the success of independent vendors in the direct sales of Kangzen-Kenko International Ltd. *Journal of Thonburi University*, 4(8) (in Thai).
- Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career choice: a social cognitive analysis. *Journal of Counseling Psychology*, 47(1), 36–49.
- Mehay, R. (2012). Chapter 10: five pearls of educational theory. In R. Mehay (Ed.), *The essential handbook for GP training and education*. London, UK: Radcliffe Publishing.
- Michalos, A. C. (1985). Multiple discrepancies theory (MDT). *Social Indicators Research*, 16, 347–413.
- Microsirir.com. (2015). *The decision tree for statistics*. Retrieved from <http://www.microsirir.com/StatisticalDecisionTree/Glossary.htm>.
- Miller, W. R., & Rollnick, S. (2002). *Motivational interviewing: Preparing people to change*. New York: Guilford Press.
- Nunnally, J. C. (1978). *Psychometry theory*. New York, NY: McGraw-Hill.
- Sapsuwan, V. (2013). *Factors that influence on accomplishment in networking business*. Interviewed by Rattana Hiranpong [in person] Amway Shop Nonthaburi, 28 September 2013.
- Solberg, E. C., Diener, E., Wirtz, D., Lucas, R. E., & Oishi, S. (2002). Wanting, having, and satisfaction: examining the role of desire discrepancies in satisfaction with income. *Journal of Personality and Social Psychology*, 83(3), 725–734.
- Somboonma, W. (2008). *A comparison of resilient personality and leadership between high and low levels of career success among the independent business owners: A case study at Amata International Network Public Company Limited* Unpublished master's independent study. Retrieved from http://library.cmu.ac.th/digital_collection/etheses/fulltext.php?id=18936&word=%C7%C3%D4%B9%B7%C3%20%CA%C1%BA%D8%AD%C1%D2&check_field=AUTHOR&select_study=&condition=2&search=9&philosophy=&master= (in Thai).
- Steiger, J. H. (2007). Understanding the limitations of global fit assessment in structural equation modeling. *Personality and Individual Differences*, 42(5), 893–898.
- Sumalee, N. (n.d.). *Social organization and social structure*. Retrieved from <http://www.museum.msu.ac.th/webMuseum2/article/18.pdf> (in Thai).
- Swanson, J. L., Daniels, K. K., & Tokar, D. M. (1996). Measuring perceptions of career-related barriers: the career barriers inventory. *Journal of Career Assessment*, 4, 219–244.
- Tan, P. K. L. (2003). *An evaluation of the motivational factors of network marketing independent distributors using Vroom's work motivation theory* (Unpublished doctoral dissertation). Available from ProQuest Dissertations & Theses Global. (Order No. U209901).
- Taweepongsatorn, V. (2005). *Factors influencing the success of binary direct sales marketing management of independent entrepreneur in Bangkok metropolitan area* (Unpublished master's thesis).

- Retrieved from http://202.28.62.221/dcms/files/Vongvaris_T.pdf (in Thai).
- Taylor, J. (2011). *The case (for and) against multi-level marketing: The complete guide to understanding the flaws – And proving and countering the effects – Of endless chain “opportunity” recruitment, or product-based pyramid schemes*. Retrieved from <http://www.mlmwatch.org/01General/taylor.pdf>.
- Vanichbuncha, K. (2009). *Statistics for research* (6th ed.). Bangkok: CU Printing House (in Thai).
- Veerachivin, C. (2004). *A study of the factors related success of the entrepreneur to invest in direct selling business of the Amway (Thailand) Co., Ltd. in Bangkok* (Unpublished master's thesis). Retrieved from http://tdc.thailis.or.th/tdc/browse.php?option=show&browse_type=title&titleid=19342&query=%AA%D8%C1%BE%C5%20%C7%D5%C3%AA%D5%C7%D4%B9&s_mode=any&d_field=&d_start=0000-00-00&d_end=2558-02-24&limit_lang=&limited_lang_code=&order=&order_by=&order_type=&result_id=1&maxid=1 (in Thai).
- Wannakulpong, P. (2010). *A comparison of transformational leadership and work motives between high and low levels of career success among independent business owners: A case study at Unicity Marketing (Thailand) Co., Ltd.* (Unpublished master's independent study). Retrieved from http://library.cmu.ac.th/digital_collection/etheses/fulltext.php?id=22681&word=%BB%D4%C2%D0%BE%A7%C9%EC%20%C7%C3%B3%A1%D9%C5%BE%A7%C8%EC&check_field=AUTHOR&select_study=&condition=2&search=9&philosophy=&master= (in Thai).
- Wongklud, K. (2008). *The successful strategy for entrepreneur in direct selling business of Amway (Thailand) Company Limited's multi-level marketing* (Unpublished master's thesis). Retrieved from http://tdc.thailis.or.th/tdc/browse.php?option=show&browse_type=title&titleid=19933&query=%A2%A8%C3%C8%D1%A1%B4%D4%EC%20%C7%A7%C9%EC%A1%C5%D1%B4&s_mode=any&d_field=&d_start=0000-00-00&d_end=2558-02-25&limit_lang=&limited_lang_code=&order=&order_by=&order_type=&result_id=1&maxid=1 (in Thai).
- World Federation of Direct Selling Association (WFDSA). (2012). *Global sales and direct selling community – 2012*. Retrieved from http://www.wfdsa.org/files/pdf/global-stats/Sales_and_Community_2012.pdf.