

**HOW SELF-EFFICACY PREDICTS ENTREPRENEURIAL SUCCESS:
PREDICTOR FACTORS IN DIRECT SALES**

by

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Abstract

This dissertation examined success in the direct sales industry by assessing self-efficacy and other predictor traits. The non-traditional, direct-to-consumer sales and marketing industry has over 20 million workers in the United States, but little scholarly information is available from psychological literature. The purpose of this study was to fill the gap in research and to determine if there is a statistically significant relationship between self-efficacy and other predictor traits such as age, hours worked per week, number of people on the team, how long they have been in business, motivation for joining the organization, the individual's education level, and their direct sales success. The research question, "Can entrepreneurial success in network marketing be predicted," was investigated using a quantitative methodology and design; a non-experimental, survey-based, cross-sectional regression analysis was employed.

Participants ($N = 91$) represented various states ($N = 23$) and direct sales and network marketing companies ($N = 25$) from around the United States. Data from this study were analyzed using a multinomial logistic regression to determine how the logistical probability of income was predicted by the independent predictor variables. The findings of the study indicated that success in direct sales could be predicted by data on the workers who joined for financial freedom, who stayed in business longer, who increased the hours they worked per week, and who grew their business by adding more team members. However, data indicated there was no significant relationship between age, education, self-efficacy, or entrepreneurial success in direct sales. The study's findings point to the need for further research and benefits to the industrial/organizational psychology field, direct sales companies, and network marketing entrepreneurs.

Dedication

This culmination of my education took many years of hard work and long hours of tuning out the world to concentrate on my goal. That could not happen without the love and support from those I love and respect most. First and foremost, I thank my Lord for loving me and answering my prayers every time I asked for wisdom, clarity, or sanity. I have learned that perseverance is the key to finishing this journey, but it requires passion, grit, and a team to tell you to keep going. I dedicate this dissertation to my husband, Josh, and my kids Alexander and Abigail. Josh, you are the best husband for challenging me, feeding me, and cheering me on the whole way. Kids, I hope to lead by example and encourage you to reach for your goals, even when they take hard work and years to accomplish. Thank you for expressing how proud you all were through every milestone; you will never know how much your support helped me across the finish line. I would also like to dedicate this and thank the only two personal mentors I have ever had and two of my very best confidants, Pat Currie and Wayne Anderson. Whether personally or professionally, you have guided me through wifedom, motherhood, partnerships, doctorhood, and so much more. You both came later in my life after losing my parents, but I have learned more from you than could fill a lifetime. Finally, thank you to my family and friends who have encouraged me always to strive to go further and finish strong; I have been fueled by your love and support. Thank you, all!

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CHAPTER 1. INTRODUCTION

Over the past two decades, a growing number of workers have felt an imbalance between the satisfaction they feel about their jobs and the expectations that the organization has for them (Chandra, 2018; Welter, 2017). As a result, employees began turning away from the corporate world and toward entrepreneurship, particularly the direct sales phenomenon (Abeysekera & Jayakody, 2011; Albaum & Peterson, 2011; Chandra, 2018; Welter, 2017; Wilson, 1999). Direct selling is consumer-to-consumer, face-to-face marketing, outside of storefront retail establishments, in which the seller may earn money from their sales as well as earn commissions from other entrepreneurs they bring into the business (Federal Trade Commission, 2018; Keep & Vander Nat, 2014; Peterson & Wotruba, 1996; Ragland et al., 2015; Sethi et al., 2015; World Federation of Direct Selling Associations, 2019). The sellers are not employees of the company; they are independent contractors with the freedom to recruit and build their own business with their own resources and expenses, such as an individual does when owning a franchise (Federal Trade Commission, 2018; Keep & Vander Nat, 2014; Peterson & Wotruba, 1996). For some, the move from highly paid corporate positions to this form of entrepreneurship has proven to be more profitable and rewarding; it allows more flexibility in their lives (Direct Selling Association, 2016; Peterson & Wotruba, 1996; World Federation of Direct Selling Associations, 2019). However, research shows that most people who enter the direct sales industry fail, for it has proven to be a challenging trade (Federal Trade Commission, 2018; Keep & Vander Nat, 2014; Peterson & Wotruba, 1996; World Federation of Direct Selling Associations, 2019). Those who are successful have not necessarily moved into direct sales from corporations or have the

skillsets necessary to start and manage a business (Keep & Vander Nat, 2014; Peterson & Wotruba, 1996; World Federation of Direct Selling Associations, 2019).

There are approximately 1100 direct sales type companies in the United States that work similarly to franchises; the parent company trains and provides support for those wanting to start and manage their own business but who do not know how to start (Direct Selling Association, 2016; Multilevel Marketing, 2007). Direct sales companies sell products and services ranging from nutrition and beauty supplies to legal services and insurance. When considering self-efficacy and entrepreneurial success it could be of benefit to determine why an individual pushes forward through the various hardships that are entailed in direct sales and what a person finds or develops in self-mastery. A certain level of self-efficacy must be present as a necessary skill set, and an individual needs perseverance to develop customer relationships and team-building techniques to achieve a profitable outcome (Keep & Vander Nat, 2014; Poon et al., 2017; Sethi et al., 2015).

Shedding light on the phenomenon through an industrial-organizational (I/O) psychology lens helps psychology professionals understand how entrepreneurship and direct sales are linked. Thus, business coaches can be given further insight into how they might help coach such individuals toward their goals. There is a lack of network marketing (NWM) workplace literature in the I/O psychology field of research, and this dissertation study may allow for more awareness of the NWM field. The results from the data may also suggest the need to study the direct sales industry further.

This dissertation researcher investigated a sample taken from direct sales independent contractors to present empirical evidence that links self-efficacy to NWM distributors and predictors of the contractors' success. Other variables that were studied include how long the

individuals had been in business, their motivation for joining direct sales, the number of hours they worked per week, the number of people on their team, self-efficacy, age, education level, and their level of income from direct sales alone. Chapter 1 presents the background, statement of the problem, and the purpose and significance of the study. The research questions, definitions of terms, the research design, and assumptions and limitations of the study are included. A brief description of the organization of the remainder of the study follows the assumptions and limitations section.

Background of the Problem

One form of direct sales is network marketing (NWM), also known as multi-level marketing or relationship marketing. This type of sales is comprised of face-to-face or person-to-person marketing and selling (Keep & Vander Nat, 2014; Peterson & Wotruba, 1996; World Federation of Direct Selling Associations, 2019). NWM bypasses the traditional retail sales brick-and-mortar shops and uses other marketing approaches such as party presentations, social media, and networking (Federal Trade Commission, 2018; Msweli-Mbanga & Sargeant, 2001). Although NWM makes up a significant percentage of the workforce with over 20 million workers in the United States alone, the NWM entrepreneur has not been widely researched, either within I/O psychology or in the United States (Keep & Vander Nat, 2014; Peterson & Wotruba, 1996).

Attributes of NWM include working from home, developing relationships with customers, and building upon individual characteristics that align with entrepreneurialism and self-efficacy (Msweli-Mbanga & Lin, 2003; Msweli-Mbanga & Sargeant, 2001). NWM has not been sufficiently investigated in psychology to determine there is a direct link between to sales success, self-efficacy, and entrepreneurship (Keep & Vander Nat, 2014; Peterson & Wotruba,

1996). While there is available NWM scholarship in business journals and international articles, there needs to be further research within the psychology field (Keep & Vander Nat, 2014; Peterson & Wotruba, 1996).

A basic 10-year database search that included the terms *direct sales* and *multi-level marketing* rendered only 26 results in Business Source Complete and none in PsycARTICLES. Of the 26 results in the business database, only 16 pertained to the NWM field, and only two of those originated from the United States. The mainstream media has written much about NWM; however, these media may be more biased since they are not based on empirical evidence regarding the psychological nature and entrepreneurial struggles and successes associated with the 35 billion dollar direct sales industry (Direct Selling Association, 2016; Peterson & Wotruba, 1996; Salimath & Cullen, 2010). Entrepreneurship and self-efficacy have both been well searched in the I/O psychology field, and the two have been linked to one another and to the workplace but not to direct sales (Loeb, Stempel, & Isaksson, 2016; Mobaraki & Zare, 2012). Therefore, there should be more research conducted within the I/O psychology field since this groups of individuals are becoming a large work force in the United States (Keep & Vander Nat, 2014; Peterson & Wotruba, 1996).

The primary theoretical basis for this dissertation was social cognitive theory (Bandura, 1977). The field of I/O psychology considers social cognitive theory when researching workplace conduct such as leadership skills, strategic planning, communication skills, and motivation, among other theories such as trait and behavioral theories (Landy & Conte, 2010). Once theories have given credence to a discipline, these tenets tend to mold and reframe models used by a discipline (Landy & Conte, 2010; Salas et al., 2017; Society for Industrial and Organizational Psychology, 2020). In this study, social cognitive theory constructs were used in

relation to I/O psychology to examine entrepreneurship and self-efficacy within the nontraditional workplace of NWM.

The I/O psychology field faces workplace changes as entrepreneurial definitions have evolved and there is societal acceptance of new explanations for success (Gelfand et al., 2017; Peterson & Wotruba, 1996; Salimath & Cullen, 2010). Some researchers posit that income levels increase social trust and social trust increases income levels (Brandt et al., 2015; Poon et al., 2017). Innovation requires an organization to be able to obtain and retain the best-qualified individuals to further organizational success (Salimath & Cullen, 2010).

Newer theories as well as older theories should be considered to determine unique perspectives on the entrepreneurial spirit (Keep & Vander Nat, 2014; Peterson & Wotruba, 1996; Salimath & Cullen, 2010). Entrepreneurship has been researched mainly in the business world; however, it is considered a mindset and a psychological construct (Baumgartner et al., 2013). Research shows there are advantages to studying the psychology of entrepreneurship, especially under the I/O psychology umbrella since it is considered a means of income (Albaum & Yin, 2017). The research question asked how self-efficacy and other variables predict entrepreneurial success in direct sales. Social cognitive theory helps to provide a more transparent framework for the research topic and further research in I/O psychology.

Statement of the Problem

There is scant research on entrepreneurial success in direct sales and self-efficacy (Keep & Vander Nat, 2014; Peterson & Wotruba, 1996). The research literature on direct sales indicates that researchers consider entrepreneurship to be a mindset (Baumgartner et al., 2013) and links the industry to I/O psychology (Nyberg & Wright, 2015). Researchers have linked self-efficacy to the workplace (Loeb et al., 2016) and entrepreneurship to self-efficacy (Mobaraki &

Zare, 2012). However, researchers do not know whether direct sales are associated with entrepreneurship or self-efficacy, or if self-efficacy predicts entrepreneurial/direct sales success. There has not been a study encompassing all those variables; thus, there is a gap in the research. There is a real need for such research to bring those attributes together to further the understanding of success among highly paid NWM distributors. The contribution of this study to the I/O psychology field fills a gap and sets the stage for further study into the psychology and business of network marketing.

Purpose of the Study

The purpose of this study was to determine if there was a statistically significant relationship between self-efficacy and direct sales success. Furthermore, the data from the study may help to fill a gap in I/O psychology research in which NWM distributors' entrepreneurial traits are examined. The review of the research regarding direct sales that used various relevant topic keywords combined with *industrial-organizational psychology* rendered no information. However, I/O psychology research has been conducted on entrepreneurship as a workplace (Nyberg & Wright, 2015), and numerous I/O psychology studies have linked self-efficacy to the workplace, such as Loeb et al.'s (2016) study on social and emotional self-efficacy at work.

This dissertation researcher wanted to make a contribution to filling the gap in NWM research in the psychology field and particularly in I/O psychology research by linking entrepreneurial traits such as self-efficacy with direct sales representatives who were the participants. During the literature review, published research that linked entrepreneurs with self-efficacy appeared more often within business journals rather than in psychological publications. The researcher also found a gap between research conducted in the United States versus overseas. Countries outside the United States have generated more direct sales research to

understand the phenomenon of growth in today's workforce (Ali, 2011). This dissertation researcher examined whether entrepreneurial success in NWM could be predicted and wanted to determine if results could inform the field of I/O psychology regarding the significance of the association between self-efficacy and direct sales.

Significance of the Study

This study is significant because it may provide several significant practical and theoretical implications for various stakeholders. First, practitioners may gain direct NWM industry perspectives regarding individual traits so that they may be better equipped to train and coach those in NWM (Graham & Weiner, 1996; Hines, 1997). Pappas and Jerman (2015) posited that organizational coaching requires a professional with qualifications that include knowledge of their industry as well as information on research in the field. Like coaches, other practitioners should also have NWM research to study, in order to fully understand the NWM individual and organization and thus provide a professional service (Pappas & Jerman, 2015).

Direct sales companies may benefit from the study in two ways. The NWM culture is one that includes relationship building, face-to-face interaction, social media sales techniques, and dynamic family changes. These entrepreneurs need constant personal and professional development, knowledge of how to run and maintain a small to large business, leadership skills, and extraverted personalities (Direct Selling Association, 2016; Poon et al., 2017; Ragland et al., 2015). The empirical outcome of the study and its predictor factor results may help direct sales organizations in their efforts to train and recruit representatives. Another way that direct sales companies may potentially benefit might be that if this topic were more widely researched within the field of psychology, it could lend credence to the perception of the NWM industry in the United States because, according to Albaum and Peterson (2011), the industry has not been

considered to be a significant part of the business economy. With more scholarly research presented in psychology and business journals, NWM might be perceived as a legitimate workplace, and the American perspective might begin to change.

Individuals who choose NWM as a career may benefit from understanding the variables that are related to success in their field. They could use this information to adjust their recruiting, training, and coaching efforts. The more success factors that can be identified, the greater NWM representatives' business intelligence may become, which could increase their chance for success (Mesaros et al., 2016).

Further research on the NWM workforce might also include potential theoretical implications. NWM organizations provide an extensive amount of training for their representatives that is based on the company earnings model, products, leadership, and business operations, all of which fall within the area of I/O psychology (Direct Selling Association, 2016; Multilevel Marketing, 2007). However, studying self-efficacy and other entrepreneurial traits of NWM representatives is only one step in understanding this type of workforce. Building on the foundation of social cognitive theory, researchers would be able to first understand the NWM industry as it relates to reciprocal determinism, understanding which predictive factors most increase the likelihood of success in the industry, and how doing so contributes to household income and psychological processes (Bandura, 1977). The outcome of this study may contribute to social cognitive theory as well as to show a need for further research into the NWM industry in the United States and how the data results relate to psychological understandings.

Research Questions and Hypotheses

The following research questions, sub-questions, and hypotheses were formed for an investigation of predictor variables for NWM success:

Primary research question: Can entrepreneurial success in network marketing be predicted?

H_{0_0} : Entrepreneurial success in network marketing cannot be predicted.

H_{1_0} : Entrepreneurial success in network marketing can be predicted.

Sub-Question 1: Can entrepreneurial success in network marketing be predicted by the collective variables of how long they have been in business, their motivation for joining, hours worked per week, number of people on a team, self-efficacy, age, and education level?

H_{0_1} : Entrepreneurial success in network marketing scores on the collective variables of how long they have been in business, their motivation for joining, hours worked per week, number of people on a team, self-efficacy, age, and education level do not significantly contribute to the prediction of monthly income.

H_{1_1} : Entrepreneurs' scores on the collective variables of how long they have been in business, their motivation for joining, hours worked per week, number of people on a team, self-efficacy, age, and education level do significantly contribute to the prediction of monthly income.

Sub-Question 2: When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by how long they have been in business?

H_{0_2} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by how long they have been in business.

H_{1_2} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by how long they have been in business.

Sub-Question 3. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by their motivation for joining?

H_{0_3} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by their motivation for joining.

H_{1_3} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by their motivation for joining.

Sub-Question 4: When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by hours worked per week?

H_{0_4} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by hours worked per week.

H_{1_4} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by hours worked per week.

Sub-Question 5: When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by the number of people on a team?

H_{0_5} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by number of people on a team.

H_{1_5} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by number of people on a team.

Sub-Question 6: When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by self-efficacy?

H_{0_6} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by self-efficacy.

H_{1_6} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by self-efficacy.

Sub-Question 7: When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by age?

H_{0_7} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by age.

H_{1_7} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by age.

Sub-Question 8. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by education level?

H_{0_8} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by education level.

H_{1_8} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by education level.

Definition of Terms

Age. This predictor variable refers to the actual chronological age of the participant based on their year of birth (Choi et al., 2014) and the participants indicated their age range from 18 to 65+ years. Age was not a primary variable of interest; however, it was essential to include because it may have impacted the results when considering the demographic information and the relationship between the more important variables. Participants checked their age range. The operational definition is the following:

- 18-25
- 26-35
- 36-45
- 46-55
- 56-65
- 66 or older

Demographic information. The demographic information that was not included in the variables but was asked for in the survey included:

- Location: United State
- Name of network marketing company
- Sex, choice of either male or female
- Employment status (not including NWM business)
- Employed either full-time or part-time
- Non-Employed, choice of either looking or not looking
- Retired
- Disabled, not able to work

- Stay-at-home parent/caretaker
- Full-time student

Education level. This predictor variable pertained to the degree the participant had achieved through formal education since it could contribute to their self-mastery and confidence in their abilities (Saeid & Eslaminejad, 2017). Education level was also an extraneous variable but was considered just as age because it contributed to self-efficacy (Saeid & Eslaminejad, 2017). Participants were asked to choose one of five degrees achieved or no degree. The operational definition is the following:

- No degree (did not finish)
- High school degree or GED
- Associate's Degree
- Bachelor's Degree
- Master's Degree
- Doctorate Degree

Hours worked per week. The predictor variable was time management efforts that correlate with job commitment and performance (Seong, 2016). The hours worked per week by NWM workers may indicate their level of commitment and contribution to their self-efficacy that could increase their level of income. Hours worked per week not only showed the level of commitment from the participant, but it was also a mediating variable. The time the individual spent growing their NWM business could significantly correlate with self-efficacy and entrepreneurial success (Seong, 2016). Participants chose a category, ranging from less than five to more than 40 hours per week. The operational definition is the following, listed in hours:

- Less than 5
- 5-10
- 11-20
- 21-30
- 31-40
- 41 or more

Income level. This outcome variable was defined by the amount a direct sales representative in NWM received per month on average over a six-month period (Brandt et al., 2015). For this study, the income level was the definition of entrepreneurial success in NWM. Income level included monthly income from direct sales alone and did not include any other means of income. A mediating variable, income level, was the definition of entrepreneurial success for this study and the variable that links all variables (Brandt et al., 2015). The highest level of success was described as Level 4—the participant made at least \$8,500 per month from direct sales income alone. The lowest level of success was described as Level 1—the participant made less than \$1000 per month from direct sales income alone. Participants chose a level of income from four categories. The operational definition is the following:

- Success Level 1 = over a 6-month average, less than \$1,000/month from direct sales income alone (\$12,000 annually or less).
- Success Level 2 = over a 6-month average, at least \$1,000 but no more than \$4,199/month from direct sales income alone (\$12,000-\$50,400 annually).
- Success Level 3 = over a 6-month average, at least \$4,200 but no more than \$8,499/month from direct sales income alone (\$50,400-\$102,000 annually).
- Success Level 4 = over a 6-month average, at least \$8,500/month from direct sales income alone (\$102,000 annually or more),

Length of time in business. This predictor variable defined how long participants had been in their NWM business. If a participant had been in NWM for less than three years but was generating an income level of someone who had been in an NWM for a longer period of time, it was important to note their self-efficacy and the other variables. Likewise, it was equally important to note those who had worked in NWM for more than five years but were still at the same income level of participants who had worked in NWM for less than a year. The length of time in business could be directly correlated with their level of entrepreneurial success. The length of time in business was a quantitative moderator variable that interacted and influenced the strength of self-efficacy on income levels (Bennett, 2000). Participants chose categories that ranged from six-months to ten or more years in NWM. The operational definition is the following:

- Less than 1 year
- 1 year—less than 3 years
- 3 years—less than 5 years
- 5 years—less than 10 years
- 10 years or more

Motivation for joining. This predictor variable assessed the reasons why participants chose to join a NWM type of business. The Direct Selling Association (2016) listed the top reasons found in several surveys, including the *2016 Growth & Outlook Report*, the *U.S. Direct Selling in 2015* report, the *Bloomberg Government Future of the Workforce Survey*, the *U.S. Census 2014*, and the *DSA National Salesforce Study 2014* survey. According to the Direct Selling Association (2016), the following reasons were given:

- Flexibility & work-life balance (65%)
- Discounted prices on products (62%)
- Earning extra income (62%)
- Income potential (59%)
- Networking aspects (52%)
- Ability to drive their own career (41%)
- Recognition of accomplishments (23%)

Participants were presented with a similar list and asked to answer their reason for starting an NWM business. The motivation for joining NWM is another moderator variable. The reason for joining NWM may have changed over time and, therefore, may or may not be a factor in predicting entrepreneurial success. Participants were asked to choose one reason for joining a NWM business from seven possibilities. The operational definition is:

- To get discounts on the products
- The hope for financial freedom
- The desire to own a business and be your own boss
- For the self-development that is provided by the company
- To get out of the house (for stay-at-home parents or caretakers)
- To use your corporate talents for network marketing success
- For the desire to lead your own team

Number of people on team. This predictor variable assessed the size of the participant's team. A downline is a team of NWM distributors that joined under one distributor. A distributor who has other distributors under them is referred to as an upline. For example, distributor B gets distributor C to join; distributor B is distributor C's upline, and distributor C is distributor B's

downline. The distributors who have been part of the organization for a longer period of time are also a part of the upline. Therefore, distributor A is distributor B and C's upline, and they are distributor A's downline. While distributors always have an upline, they may choose not to have a downline. Growing larger teams in NWM allows for the NWM business owner to accomplish monetary and achievement goals through commission, be more accepted into higher ranks within their company, and to become a leader in helping others succeed in NWM. It was perceived that the larger the team, the higher the connection might be between direct sales success and self-efficacy (North et al., 2014). The size of the participant's team was also a mediating variable as the larger the team, the higher the level of income North et al., 2014). Participants chose a category, ranging from less than five to more than 501 team members. The operational definition is the following:

- 0-50
- 51-100
- 101-200
- 200-500
- 501 or more

Self-efficacy. This predictor variable assessed an individual's beliefs about their self-confidence and capabilities to perform successfully at designated levels and influence change and events in their lives. Self-efficacy determines how people are motivated and how they think, feel, and behave across different tasks and achievement situations (Bandura, 1997). Self-efficacy was a mediating variable and the focal point of all the variables considered. Scores from the New Generalized Self-Efficacy Scale (NGSE) were included in the predictor model (Chen et al., 2001). The higher the score, the higher the self-efficacy. Participants answered the NGSE eight-

question scale, and scores were totaled by the researcher. The NGSE measures eight items on a five-point Likert-type scale from *strongly disagree* (1) to *strongly agree* (5). The operational definition for the NGSE included eight questions that measured items such as achieving goals, effectively performing tasks, self-belief in success, overcoming challenges, and self-confidence.

Research Design

The research design comprised a quantitative, non-experimental, cross-sectional survey study that measured the predictive relationship between self-efficacy and other predictive factors and entrepreneurial success in NWM (Leedy & Ormrod, 2010). This design was chosen to collect preliminary data on the population being studied and because of the amount and nature of the variables being measured. The survey was conducted using Survey Monkey's online survey software that measured one group that fell within the non-probability range and that measured the purposive parameter of limitations. The participants were recruited using a snowball sampling method (Leedy & Ormrod, 2010; Survey Monkey, n.d.). Data from the study were analyzed using a multinomial logistic regression (mlogit). The mlogit is a statistical analysis that determines how the logistical probabilities of outcomes are predicted by a combination of independent predictor variables (El-Habil, 2012). The mlogit was the best analysis for this study because the outcome variable was nominal with more than two levels (Hosmer et al., 2013; Jong et al., 2019). The binary regression test for each possible pair of outcomes examined the likelihood of the placement of the outcome variable (Hosmer et al., 2013).

The data were collected via a demographic questionnaire and the New Generalized Self-Efficacy Scale (Chen et al., 2001). The survey was given to consenting participants who fell within the parameters of the study. They were required to be at least 18 years of age, were involved in NWM for at least six months, and were residents of the United States. The predictor

variables included characteristics of NWM distributors including the length of time in business, their motivation for joining, hours worked per week, number of people on their team, self-efficacy, age, and education level. The outcome variable, success, was described as monthly income level that was defined and divided into four levels.

Assumptions and Limitations

Assumptions

The research design was based on a logical positivism philosophical approach. Such an approach observes the truth through measurable data, objectivity, and analyzed statistics (Uebel, 2013). Following this philosophy, four underlying assumptions supported the research design. The ontological assumption was realism; the study observed the overall general results of the sample and assumed it represented the population. The epistemological assumption was etic, and the researcher remained as objective as possible by posting the request for participants on social media and emailing invitations to the study. The axiological assumption was that by studying this population of NWM workers using a psychological approach, researchers and practitioners would have a better understanding of the NWM workforce and could determine what sort of research should be done. The methodological assumption was that the quantitative research design was appropriate for the topic and research question and was best used to study the variables for a prediction of traits for success in direct sales (Leedy & Ormrod, 2010). Other assumptions pertained to the participants and their integrity in being forthcoming with their earnings. It was assumed participants would not be hesitant to share their success and would be truthful and not exaggerate their earnings from direct sales.

Limitations

The study's design presented some limitations. First, the study was performed using an anonymous online format; this approach made it difficult for the researcher to control any possible extraneous variables that would compromise the internal validity of the study (Myers, 2014). For example, the participant might have taken the survey using their phone and received a phone call during the survey. Another limitation was that of participant integrity; however, in order to increase participant integrity, the survey was anonymous; this limited risk to the participant and increased chances for participant integrity (Kaplan & Saccuzzo, 2009; Myers, 2014). With an anonymous survey of this type, there is no way to ensure whether all the participants genuinely qualified or answered the survey questions truthfully. Other limitations that were considered arose from social cognitive theory (Bandura, 1977). According to the theory, changes in an individual's environment can lead to automatic changes in the person, but it is not clear the extent to which emotion or intrinsic motivation factors influence change (Loeb et al., 2016; Mobaraki & Zare, 2012). This is because there is no way of knowing whether the participant might answer survey questions the same way they would under a different setting or if the circumstances leading to their survey answers might change the way they answer those questions. For example, they might answer questions based on what kind of day they experienced so far or the mood they were in, if they had recently received a large bonus or new team members, or if they were not doing so well in their business at that moment. This limitation accounts for the human component of research.

Organization of the Remainder of the Study

The dissertation is organized into five chapters. Chapter 1 presented an overview of the study including the background of the problem, statement of the problem, the purpose of the

study, and the significance of the study. The definition of terms, research questions and hypotheses, research design, and assumptions and limitations were presented. Chapter 2 examines the social cognitive theory applied for the research and discussions of entrepreneurialism, self-efficacy, and direct sales. There is also a synthesis of research findings and a critique of previous research methods. Chapter 3 explains the methodology of the study, which includes the research design, target population, participant selection process, instruments, data collection and analyses, and ethical considerations. Chapter 4 presents a summary of the analyses and the results of the study. Chapter 5 summarizes and discusses the conclusions of the study, provides implications of the research, and offers recommendations for further research.

CHAPTER 2. LITERATURE REVIEW

The review of the literature in Chapter 2 established the theoretical basis for this study. First, the methods that were used for searching the literature are presented and there is a discussion of social cognitive theory as the theoretical orientation of the study. Research by scholars on self-efficacy, direct sales, and the network marketing entrepreneur is discussed. The final sections of the chapter include a synthesis of the research findings, a critique of previous research methods, and a summary of the literature review.

Methods of Searching

A review of peer-reviewed literature was conducted using the Capella University online library to gain access to databases including PsycARTICLES, PsycINFO, ProQuest Central, Business Source Complete, SocINDEX with Full Text, Academic Search Premier, ERIC and Summon. Google Scholar and Google searches were also used to find sources and then verified in the Capella online library for peer-reviewed articles. Keywords searched included *industrial-organizational psychology, self-efficacy, entrepreneurship, direct sales, network marketing, multi-level marketing, relationship marketing, and social cognitive theory*. Search terms that included pairings were *self-efficacy and entrepreneurialism, entrepreneurialism, and direct sales* (along with the other names that refer to direct sales) and *self-efficacy and direct sales*.

The literature search generated many studies concerning self-efficacy and entrepreneurialism. However, only a few articles were located concerning direct sales, and none where all three (self-efficacy, entrepreneurialism, and direct sales) were found. The purpose of

this study was to determine the association between self-efficacy and direct sales in order fill a gap in I/O psychology research in which NWM distributors are examined in relation to entrepreneurial traits. There was also a need for NWM research from the standpoint of psychology rather than from business and from between research conducted in the United States versus research conducted internationally.

Theoretical Orientation for the Study

The primary theoretical basis for the study was social cognitive theory (Bandura, 1977). Social cognitive theory represents the perspective that individuals play a crucial part in how they behave and may influence outcomes based on their specific actions. The field of I/O psychology considers constructs that pertain to organizational and individual professional improvement in areas such as leadership, strategic planning, communication skills, and motivation (Gelfand et al., 2017; Salas et al., 2017). Theories that are studied within I/O psychology are derived from other psychological areas such as behavioral and cognitive theories (Landy & Conte, 2010; Nyberg & Wright, 2015; Waterman, 2013). Studies consider the qualities that might apply to workplace settings such as adult learning, job satisfaction, and self-actualization (Gelfand et al., 2017; Landy & Conte, 2010; Nyberg & Wright, 2015). Once theories are given credence to a discipline, they tend to mold and reframe models used by various disciplines. In this study, social cognitive theory was applied to I/O psychology as entrepreneurialism and self-efficacy were examined in the unconventional workplace of NWM.

Social Cognitive Theory

A student of various learning theories, Bandura (1977) believed there was more to learning than the stimulus-response principles of classical and operant conditioning (Bandura, 1977). He studied other cognitive processes, observational learning or modeling, and

reinforcement in an effort to improve what he saw as a more complicated process of learning and responding to environmental influences. Building on the behaviorist learning construct of the existing social learning theory, Bandura took the explanation of human functioning to a deeper level, considering both social and environmental influences as well as endogenous motives (Bandura, 1986). Based on his intensive investigation and studies, Bandura first proposed updates to the social learning theory in the 1960s, which then included mediational processes such as attention, retention, reproduction, and motivation (Bandura, 1986). Recognizing that this process still did not explain the complexity of action by thoughts and feelings, Bandura (1986) later modified the theory and renamed it social cognitive theory (SCT). This refined version of the theory provided a further description of how people learn from their social experiences. Moreover, it addressed cognitive, social, emotional, and behavioral ways of learning as well as how individuals are motivated, regulate their behavior, and respond to their social structures (Bandura, 1986). The theory continues to face scrutiny for its limitations on its description of behavior based on nature or nurture (Bandura, 2002; Dhiman, 2011). However, over the past 30 years, more research has been done that elaborates further on the theory (Bandura, 2002; Dhiman, 2011).

Bandura's social cognitive theory opened the door to an entirely new dimension of psychology to be explored by the theorists (Bandura, 2002; Dhiman, 2011). As Bandura's theory evolved, he added constructs that explain self-regulation, goal-directed behavior, and human agency (Bandura, 1989; Bandura, 2000; Kirkpatrick et al. 1991; North et al., 2014; Zimmerman & Bandura, 1994; Zimmerman et al., 1992). Two constructs found within this theory include self-efficacy and reciprocal determinism. Both constructs are discussed in the next sections.

Self-Efficacy

Self-efficacy determines how people are motivated and how they think, feel, and behave across different tasks and achievement situations (Bandura, 1997). Research on self-efficacy among students has shown that academic achievement can be predicted by perceived self-efficacy (Pajares, 1996; Zimmerman & Bandura, 1994; Zimmerman et al., 1992). It is also considered to be a reliable predictor of behavioral outcomes in psychology and education (Graham & Weiner, 1996) and has wide implications in business.

Studies on self-efficacy have been conducted in various areas such as medicine, media studies, athletics, political and social change, education, and psychology (Bandura, 1997; Demo & Acock, 1988; Feist & Feist, 2006; Hines, 1997). In psychology, the study of self-efficacy has helped in several clinical problems such as depression, phobias, social skills, smoking behavior, assertiveness, and moral development (Bandura, 1997). Furthermore, self-efficacy has been significant in studies of educational constructs such as academic achievement, problem-solving, career aspirations, and teaching (Pajares, 1996; Zimmerman et al., 1992). Evidence from various research reveals that the level of academic achievement can be predicted by perceived self-efficacy (Pajares, 1996; Zimmerman & Bandura, 1994; Zimmerman et al., 1992). Moreover, self-efficacy has proven to be the most reliable predictor of behavioral outcomes in psychology and education than any other motivational constructs (Graham & Weiner, 1996). There are also wide implications of self-efficacy in business. It has been found that employees who possess a high self-efficacy demonstrate more positive attitudes and greater performance at work than those of low perceived efficacy (Staples et al., 1998). Thus, it has been established by various researchers that self-efficacy beliefs are highly correlated to behavioral changes and outcomes.

Thus, a study of self-efficacy could be considered as a predictor of behavior in NWM and entrepreneurialism.

Reciprocal Determinism

Reciprocal determinism, the central concept of SCT, is the reciprocal interaction of person, environment, and behavior. Reciprocal determinism considers the cognitive feedback individuals receive from their environment and the people they choose to include in their environment. It is the emotional and physical actions with which they respond to that environment and how those actions impact changes in the environment (Bandura 1989). If the action is perceived as favorable by the environment and those in it, the behavior is likely reinforced and will continue. However, if the action is perceived as unfavorable, behaviors, beliefs, and attitudes may consequently change.

Bandura recognized the probability of an individual's behavior as being conditioned through the use of repeated feedback and actions and how those actions also impacted the environment (Bandura 1989). By adding the individual into this mix, Bandura incorporated cognitive factors such as memory, anticipation, planning, and judging. People use these cognitive skills to manipulate their environment and their behavior. Bandura's concepts of self-efficacy and reciprocal determinism have been of great interest to many researchers because they have several implications, such as improved therapeutic and counseling methods (Bandura, 1997; Drummond & Jones, 2006; Graham & Weiner, 1996; Hines, 1997).

Bandura's concepts of self-efficacy and reciprocal determinism in his social cognitive theory have been of great interest to many researchers because of the many possible implications (Bandura, 1997). The study of reciprocal determinism has been widely used in medicine since it has been shown that personal, environmental, or behavioral factors can be improved using

therapeutic and counseling methods (Hines, 1997). Also, the well-being of human functioning can be ensured by employing strategies that improve emotional, motivational, or cognitive processes (Graham & Weiner, 1996). Furthermore, the social conditions in the environment can be improved in order for people to remain healthy. This dissertation does not measure reciprocal determinism; however, the concept is still relevant. NWM distributors may respond to positive or negative cognitive feedback from friends and family who show their concern, judgment, or support for the individual's chosen entrepreneurial path. The feedback they receive may help or hinder the NWM distributor's success in direct sales. Also, repeated feedback and actions during sales and marketing from potential buyers may lead to a higher or lower self-efficacy. Researchers might want to take a more in-depth look at reciprocal determinism in direct sales representatives and investigate how a person is supported or not supported by their environmental feedback in future studies.

Review of the Literature

The specialization of I/O psychology is based on studies, research, and theories that are applied to the workplace setting (Gelfand et al., 2017; Gibson et al., 2018; Landy & Conte, 2010; Salas et al., 2017; Society for Industrial and Organizational Psychology, 2020). A type of I/O psychologist was used in ancient times for soldier selection, according to Stagner (1982). The researcher argued that all people are not created the same; therefore, they are not interchangeable, and thus the need for industrial psychologists arose. In the late 1800s, psychologists began to understand the importance of psychology in the workplace and linked measurable worker abilities to work performance, bringing about the organizational side of I/O psychology (Landy & Conte, 2010). In the early 1900s, workplace testing became standard among industrial settings and in support of military operations. The idea behind I/O psychology

was not to treat the unhealthy but instead to increase productivity and motivate the individual, a concept that moved from having previously been in the background for some time to a new focus of study within the psychology world (Gelfand et al., 2017; Gibson et al., 2018; Landy & Conte, 2010; Salas et al., 2017; Society for Industrial and Organizational Psychology, 2020).

As further research was conducted within the I/O psychology specialty, more theories were used to assess workplace behavior such as trait, self-determination, humanistic, and social cognitive theories (Bandura, 1991; Gelfand et al., 2017; Gibson et al., 2018; Landy & Conte, 2010; Salas et al., 2017; Society for Industrial and Organizational Psychology, 2020). Research contributed to the understanding of organizational group dynamics and individual motivation to succeed (Bandura, 1991; Gelfand et al., 2017; Gibson et al., 2018; Landy & Conte, 2010).

Workplaces have changed over the past century in culture, diversity, physical settings, and technology; however, one thing remains the same—individual behavior at all levels of a company setting (Gelfand et al., 2017; Landy & Conte, 2010; Salas et al., 2017). For this study, social cognitive theory was applied to understand how individuals perform in a work setting with regard to their potential success. A product of social cognitive theory, self-efficacy research was examined and questioned concerning individuals' beliefs in their potential to be successful. This construct was then applied to the NWM entrepreneur in a non-traditional workplace setting.

Self-Efficacy

Bandura studied personal agency, which refers to the ability of people to exercise their influence on the functioning of themselves and their environment in the management of their lives (Bandura, 1989, 2000, 2002; Dhiman, 2011). As individuals age, they are required to maintain the skills needed to succeed in life, set goals, manage their time, choose their peers, self-monitor, regulate, and evaluate (Bandura, 2002; Dhiman, 2011). If people fail to regulate

their environment effectively, a result may be a loss of self-efficacy (Bandura, 2002; Betz & Klein, 1996; Cervone, 1997; Chen et al., 1999). As their self-efficacy diminishes, they may stop regulating themselves, their environment, and their selection of peers (Bandura, 2002).

Conversely, people with a strong sense of efficacy are more resilient and better able to resist the adverse influences of low-achieving peers than are those with a weak sense of efficacy (Bandura, 2002). This belief in one's self-regulative capability to attain goals is the core of a resolute sense of personal agency (Bandura, 2000; Kirkpatrick et al., 1991; North et al., 2014; Zimmerman & Bandura, 1994; Zimmerman et al., 1992).

The area of personal agency was further explored by Bandura (1989), which eventually led to the proposition of the self-efficacy theory. According to the self-efficacy theory, the level of self-efficacy of an individual reveals the willingness of the individual to approach the world as a change agent or one who can promote change within a group (Bandura, 1997; Chirkov et al., 2003; Vansteenkiste et al., 2007). Self-efficacy indicates how much one believes in one's capability to achieve a particular goal (Gardner & Pierce, 1998; Gist & Mitchell, 1992; Pajares, 1996; Schunk & Pajares, 2002; Shelton, 1990). Bandura's concept of self-efficacy evolved based on the study of human social cognition. He believed that people understand their environment by symbolizing their experiences, solving problems that they face in everyday lives, developing reflective thoughts, and effectively interacting with the environment (Bandura, 1997; Betz & Klein, 1996; Gardner & Pierce, 1998; Gist & Mitchell, 1992; Pajares, 1996; Shelton, 1990). The usage of symbolic means to understand the environment provides meaning, structure, and continuity to people's lives (Pajares, 1996). Furthermore, self-efficacy plays a major role in determining human motivations and personal achievements (Deci & Ryan, 2000, 2008; Deci et al., 2001; Deci & Vansteenkiste, 2004; Diefendorff & Mehta, 2007; Saeid & Eslaminejad, 2017).

Self-efficacy controls human functioning and influences the way people think, the way they motivate themselves, and the way they deal with problems. Self-efficacy also regulates the important decisions that people make in their lives. Several studies have been conducted to examine self-efficacy; it has been found that self-efficacy is directly proportional to the quality of human functioning (Demo & Acock, 1988). People can have high or low self-efficacy (Bandura, 2002).

High self-efficacy. People with higher self-efficacy display a strong sense of personal competence while approaching problematic tasks and consider them as challenges to be conquered (Gist & Mitchell, 1992; Hines, 1997; Pajares, 1996; Schunk & Pajares, 2002; Shelton, 1990). They are more interested and quickly engrossed in challenging activities. They also maintain a strong commitment to themselves and easily recover their sense of efficacy in case of failure (Hines, 1997). Higher self-efficacy is demonstrated among people living in a favorable and positive environment (Feist & Feist, 2006; Hines, 1997). For example, the emotional support of parents has a strong influence on the level of self-efficacy of their children (Hines, 1997). Children living with cooperative and peaceful parents will experience a higher level of self-efficacy as compared to those living with aggressive parents (Hines, 1997).

Low self-efficacy. Conversely, people with low self-efficacy approach problems with a pessimistic attitude and consider goals to be more complicated than they should (Kirkpatrick et al., 1991; North et al., 2014; Zimmerman & Bandura, 1994; Zimmerman et al., 1992). Lower self-efficacy is demonstrated in people living in unfavorable social environments. For example, when teenage adolescents from single-parent or blended families were compared with those from first marriage homes, it was found that adolescents from single-parent or blended families demonstrated a lower level of self-efficacy in terms of their economic, educational, and social

aspects as compared to those from first marriage homes (Demo & Acock, 1988). People with low self-efficacy also perceive problematic tasks as threats that need to be avoided; such tasks invoke stress, anxiety, and depression within them (Bandura, 1997; Saeid & Eslaminejad, 2017). Therefore, an individual's level of self-efficacy can strongly determine the level of accomplishment that person can eventually achieve. Perseverance related to high self-efficacy should increase performance and thereby uplift the level of an individual's sense of efficacy and spirit (Zimmerman & Bandura, 1994). Conversely, the surrendering attitude associated with low self-efficacy implies failure in future tasks that can lead to deterioration of confidence and morale (Zimmerman & Bandura, 1994).

Self-efficacy in the workplace. There has been a plethora of research done concerning self-efficacy in the workplace (Ahearne et al., 2005; Bandura, 1991; Bandura & Locke, 2003; Fallah et al., 2018; Joo & Nam, 2019; Ozyilmaz et al., 2018; Panagopoulos & Ogilvie, 2015; Peterson, 2020). According to Bandura (1991), self-efficacy refers to a person's confidence in accomplishing objectives in the workplace. Self-efficacy has been studied in terms of organizational behavior such as transformational leadership, goal orientation, intrinsic motivation, career satisfaction (Ahearne et al., 2005; Bandura, 1991; Bandura & Locke, 2003; Fallah et al., 2018; Joo & Nam, 2019; Ozyilmaz et al., 2018; Peterson, 2020). Whether on a workforce team or in a sales setting, researchers have witnessed how reciprocal determinism has played a part in positive or negative self-efficacy and how self-efficacy enhances personal performance achievement (Bandura, 1991; Bandura & Locke, 2003; Fallah et al., 2018; Ozyilmaz et al., 2018; Panagopoulos & Ogilvie, 2015; Peterson, 2020). However, there are varying thoughts on self-efficacy in the workplace. Joo and Nam (2019) believed self-efficacy is most effective if intrinsic reinforcement is met by personal experiences of success at work,

exposure to effective role models, social communication, and positive affective behavior at work. Ozyilmaz et al. (2018) studied how organizational trust increased self-efficacy that resulted in positive effects on job satisfaction, task performance and citizenship. In literature concerning sales, self-efficacy was researched in regard to a person's confidence and abilities to be more responsive and active, to leadership qualities such as influence and empower teams, and to the taking of more initiative in sales performances (Ahearne et al., 2005; Fallah et al., 2018; Panagopoulos & Ogilvie, 2015). However, Peterson (2020) claimed that studying self-efficacy in sales is difficult because it is subjective in nature, and research contains conflicting results. While there has been a great deal of research conducted on self-efficacy in the workplace, the studies have yet to show how self-efficacy can be linked to direct sales.

Self-Efficacy and the Study Variables

This section presents the literature review on the study's variables and how each of these variables are related to self-efficacy. Many of the predictor variables (e.g., age, hours worked per week, number of people on team, how long they have been in business, motivation for joining, and education level) used in the study could be referred to as demographic information. However, for the purpose of this novel study within I/O psychology, they were considered to assess principal characteristics of NWM distributors.

Age. The age predictor variable refers to the actual chronological age of the participant based on their year of birth (Choi et al., 2014). Age was not a primary variable in this dissertation; however, it was essential to include because it may have impacted the results when considering the demographic information and the relationship between other variables. Research on age and self-efficacy suggested various influences may help to lower or raise self-efficacy (Maurer, 2001). Mastery experiences influence self-efficacy depending on an individual's prior

performance and how they judge their future competence and ability to perform well (Maurer, 2001). Vicarious experiences influence self-efficacy by allowing a person to observe others similar to themselves who accomplish tasks in an efficient and effective manner (Maurer, 2001). Whether the employee is an older retiree or a college age student, these influences may impact self-efficacy at any age and were included in this study.

Education level. The education level predictor variable pertains to the degree a person has achieved through formal education. Academic achievement or lack of can contribute to individuals' self-mastery and confidence in their abilities (Saeid & Eslaminejad, 2017). Education level was a demographic variable and was considered, like age, because it can be an influence for self-efficacy (Saeid & Eslaminejad, 2017). Participants were asked to choose one of five degrees achieved or no degree.

Hours worked per week. The hours worked per week predictor variable regarded time management efforts that correlate with job commitment and performance (Seong, 2016). The hours worked per week by NWM workers may indicate their level of commitment and contribution to their self-efficacy, thus increasing their level of income. Hours worked per week would not only display a level of commitment from the participant, but it was also a mediating variable since the time spent on growing their NWM business would significantly correlate with self-efficacy and entrepreneurial success (Seong, 2016).

Length of time in business. The length of time in business variable defined how long participants had been in their NWM business. Ng and Lucianetti (2016) suggested organizational trust and respect influence self-efficacy in the workplace. Those who have been in NWM longer, specifically with the same company, may have more positive expectations of organizational behavior and, therefore, they may trust in their chosen direct sales organization and their own

NWM self-mastery. Likewise, those in NWM longer may feel increasingly respected as they were elevated within the company ranks. Promotions can raise a person's sense of value and their self-efficacy. It is important to understand if this phenomenon is evident in the direct sales field or if participants experienced the NWM workplace differently. For example, if a participant had been in NWM for less than 3 years (i.e., not very long) but was generating an income level of someone who had been in longer, it was important to note their self-efficacy and the other variables. Likewise, it was equally important to note those who had worked in NWM for more than 5 years but were still at the same income level of participants who had worked in NWM for a short amount of time. The length of time in business could be directly correlated with their level of entrepreneurial success. The length of time in business was a quantitative moderator variable that interacted and influenced the strength of self-efficacy on income levels (Bennett, 2000).

Motivation for joining. The motivation for joining predictor variable pertains to the reasons why participants chose to join an NWM type of business. The Direct Selling Association (2016) listed the top reasons found in several surveys. For this study, participants were asked to give their reason for starting an NWM business. The motivation for joining an NWM may contribute to self-mastery and the motive to be successful; if the motive is simply to get discounts on products, then the desire to run a business may not be a priority. However, if the motive is to gain financial freedom, for example, then the self-efficacy may be a valid variable.

Number of people on the team. The number of people on a team predictor variable assessed the size of participant's teams. A downline is a team of NWM distributors who joined under one distributor. A distributor who has distributors under them is referred to as an upline. The elder distributors are also a part of the upline. While distributors always have an upline, they

may choose not to have a downline. By developing larger teams in an NWM, the NWM business owner can accomplish monetary and achievement goals through commissions, may be more accepted into higher ranks within their company, and may become a leader in helping others succeed in an NWM. North et al. (2014) stated that the larger the team was, the higher the connection between direct sales success and self-efficacy might be. The size of the participant's team was also a mediating variable because the larger the team was, the higher the level of income might be (North et al., 2014).

Income level. The income level outcome variable was defined by the amount a direct sales representative in an NWM received per month on average over a six-month period (Brandt et al., 2015). For this study, the income level was the definition of entrepreneurial success in NWM. Income level included monthly income from direct sales alone, so not to include any other means of income. A mediating variable, income level, it links or intercepts all the variables (Brandt et al., 2015). The highest level of success was described as Level 4—the participant would be making at least \$8,500 per month from direct sales income alone. The lowest level of success was Level 1—the participant made less than \$1000 per month from direct sales income alone. It was assumed that self-efficacy would vary at each level but would match the self-mastery and present as high for the higher income levels.

Direct Sales/Network Marketing

Over the past 20 years, workers have turned toward direct sales opportunities and away from the corporate world because there has become an imbalance of worker satisfaction and organizational expectations (Albaum & Peterson, 2011; Babu & Anand, 2015; Groß & Vriens, 2019). For some, the move from highly paid corporate positions to entrepreneurship has proven to be more profitable, and in some cases, entrepreneurs earn \$10,000 per month or more.

However, not all successful entrepreneurs came from corporations or have the skillsets necessary to start and manage a business. One line of business that is growing among entrepreneurs is that of network marketing, also known as multi-level marketing. Examples of this type business are Mary Kay, Avon, Shaklee, Tupperware, Plexus, Juice Plus, PartyLite, Herbalife, and Pampered Chef (Direct Selling Association, 2016; Keep & Vander Nat, 2014; World Federation of Direct Selling Associations, 2008).

The history of direct sales. The direct sales industry has been around for more than a century as peddlers sold the latest and greatest in everything from vacuum cleaners and washing machines to cosmetics and health products (Keep & Vander Nat, 2014). In the 1920s, companies began to recruit distributors locally in an effort to reduce excess inventory from door-to-door sales of brand products (Keep & Vander Nat, 2014). Housewives, college students, and teachers were recruited and began learning about consumer products and sales and shared their knowledge with family, friends, and neighbors while earning extra income via a commission. According to Botsford's 1926 and Curtis's 1925 reports, by the mid-1920s, companies began to see high increases in sales revenue and began the direct selling industry (as cited in Keep & Vander Nat, 2014). The California Perfume Company (Avon) was founded in 1886 and generated \$2.5 million in revenue in 1929. The industry had a high turnover of representatives; therefore, companies began providing more sales strategy training and prizes for sales volume. The first woman to use the direct selling approach and the first African American millionaire in the United States, Madam C. J. Walker, sold hair treatments and cosmetics to African American women (Keep & Vander Nat, 2014). As the direct sales industry grew, store retailers felt threatened, made complaints, and discouraged buyers from direct sales brands, and as a result, many direct sales companies opened traditional storefronts (Keep & Vander Nat, 2014).

However, this made it challenging to work in direct sales since many representatives were women who, at the time, did not work out of the home traditionally.

In the 1930s, when the government put more employment policies in place such as social security, direct sales companies adopted the platform whereby distributors were independent contractors (Keep & Vander Nat, 2014; Msweli-Mbanga & Sargeant, 2001). The Direct Selling Association (DSA), direct sales revenue varied between the 1930s and the 1980s, and as women began taking more traditional jobs outside the home, fewer women entered the direct sales industry (Keep & Vander Nat, 2014; Msweli-Mbanga & Sargeant, 2001). Direct selling took an innovative approach to sales and introduced the party plan, a more social way of selling (Keep & Vander Nat, 2014; Msweli-Mbanga & Sargeant, 2001). Consumers would attend a party and learn about the products through demonstrations. The direct sales independent contractor would build relationships with consumers in an effort to continue to sell to them as new products were created (Keep & Vander Nat, 2014; Msweli-Mbanga & Sargeant, 2001). Another way that direct sales evolved was with the introduction of the multi-level marketing (MLM) model whereby the distributors would create their own business and recruit their own team of distributors referred to as their downline (Keep & Vander Nat, 2014; Msweli & Sargeant, 2001). Each downline team member was given the same opportunity to create their own business and recruit their own team. Each distributor received both a percentage from retail sales and commission from the success of their teams.

Over the years, the direct sales industry has faced difficulty with different government agencies for various reasons, such as making false product claims. The legitimacy of companies was threatened by pyramid schemes posing as MLMs. The MLM model created an opportunity for fraudulent pyramid schemes to recruit and pay commissions for doing so that did not result in

any type of retail sales or service, thus creating victims rather than consumers (Keep & Vander Nat, 2014). As a result, many MLM companies began relabeling themselves as direct-to-consumer or network marketing, creating distance between them and the MLM model, since it was often mistaken for a pyramid scheme (Keep & Vander Nat, 2014). For this reason, the DSA was formed to enforce a code of ethics for direct selling companies and their distributors (Keep & Vander Nat, 2014). The World Federation of Direct Selling Association (2008) was formed in 1978 by direct selling associations from around the globe to ensure the industry's commitment to ethical business practices.

Direct Sales and the United States Public Perspective

In the United States, the public perspective of direct sales companies is poor (Peterson & Wotruba, 1996) because the general public was witness to dishonest companies in the 1970s and 1980s. MLMs were perceived to be illegal pyramid schemes (Albaum & Peterson, 2011). Much of the public perception of network marketing is negative due to the less than ethical perception of non-participants (Peterson & Albaum, 2007). The phrase *pyramid scheme* has been used to describe direct sales for more than 40 years; however, the term may be applied because individuals do not understand the industry. An actual pyramid scheme would require an individual to buy into a so-called business and recruit more investors who never received a product or service for their money and in most cases, never received any of their promised payments (Peterson & Albaum, 2007; Sethi et al., 2015). Some non-distributors feel that NWM is not an ethical or true way of making money, yet they still buy the product or service from the seller (Peterson & Albaum, 2007). NWM distributors may have the advantage of product discounts and partake in purchasing the goods they sell, but they are always compensated for their sales. To address the ethics of this type business transaction, Peterson and Albaum (2007)

conducted surveys asking NWM distributors and those in storefront retail sales (i.e., department store employees) if they personally purchase their own company's products and found them to be the same. The researchers found no difference in their perceptions regarding a decision to buy their own products or get discounts at their place of work.

Critics of direct selling companies believe that those who join MLMs lose more money than they make, but Albaum and Peterson (2011) found that statement to be false and showed evidence of an increase in income through NWM. More research on NWM would help society to see NWM for what it is face-to-face relationship selling rather than an illegal and unethical way of business, especially since it is the way many Americans make a living (Albaum & Peterson, 2011). NWM should be considered a legitimate business in which an individual offers a product socially rather than in a storefront (Albaum & Peterson, 2011). NWM is a topic area lacking in research overall, and there is a paucity of studies conducted under the psychology umbrella (Peterson & Wotruba, 1996). NWM professionals who write books and articles regarding the field have been successful in their own NWM business, or they are experts in sales and marketing, but little has been written or studied within academia concerning NWM (Keep & Vander Nat, 2014; Sparks & Schenk, 2006). It is time that NWM distributors are investigated further to contribute to I/O psychology research (Keep & Vander Nat, 2014; Sparks & Schenk, 2006).

Direct sales today. The concept of NWM has become a global phenomenon that many product and service companies have turned toward to cut costs (Ali, 2011). Direct selling allows a company to build a marketing model in which they do not have to hire full-time salespeople (Racolța-Paina & Luncașu, 2014; Sethi et al., 2015). It is cost-efficient for a company to spend less on marketing and advertisements and more on training independent contractors. Those

NWM distributors, in turn, build relationships with consumers, demonstrate products and services, use the merchandise themselves, and convince others to buy and buy again (Ali, 2011; Keep & Vander Nat, 2014; Msweli-Mbanga & Sargeant, 2001). Currently, direct selling is a 180-billion-dollar global industry, with nearly 120 million independent representatives worldwide, despite its history (World Federation of Direct Selling Associations, 2019). Regions including direct selling associations include Asia/Pacific, Africa, Middle East, North America, Latin America, Europe, and Australia. North America makes up 34% of global sales (World Federation of Direct Selling Associations, 2019). The direct sales industry, now regulated worldwide, is in over 170 countries and has become the fastest growing industry in areas such as India (Babu & Anand, 2015).

Direct Sales Population Characteristics

The direct sales industry comprises representatives who sell to individuals, whatever their product may be, and run their business from home the majority of the time. Some join to gain discounts on their own personal product supply, some join for fun, and some join because they need to make extra money but then later see it as a career opportunity (Ragland et al., 2015; Wilson, 1999; World Federation of Direct Selling Associations, 2019). Individuals who join represent many different types of demographic and career backgrounds, and some have more success than others. Job satisfaction is high at 77%, because NWM distributors value being their own boss, enjoy flexibility in their schedule, and have a better work-life balance (Direct Selling Association, 2016). The mindset of the direct sales representative in terms of emotions, motivation, and commitment is one that thrives on strong personality and leadership traits, a daily method of operations and executive functioning, as well as a strong motivation to keep moving forward (Direct Selling Association, 2016; Keep & Vander Nat, 2014; Peterson &

Wotruba, 1996; Poon et al., 2017). According to the Direct Selling Association (2016), some notable statistics concerning NWM are the following:

- 5.3 million NWM workers are building independent businesses, managing a customer base, and leading their teams;
- 800,000 are full time; the rest are part time;
- in the demographic studies, 74 % are women, and 26 % are men;
- in age groups, 8.2% are under the age of 25, 26% are 35–44, and 6.8% are 65+;
- in the demographic studies, 77% are White, and 20% Latinos;
- product types with the highest sales include wellness, services, home, and family care, personal care, clothing and accessories, leisure, and education;
- the percentages of sales strategy are person-to-person (72%), party plan (21%), and other (7%);
- one in six U.S. households have someone involved in NWM;
- three in ten are millennials;
- NWM workers have a higher percentage of annual incomes over \$50,000 (58%) compared to all Americans (50%); and
- colleges graduates are 52% of NWM workers compared to 28% of all Americans.

The Network Marketing Entrepreneur

The 18th-century French word *entreprendre*, which means *to undertake*, was initially used to describe the manager of a theater production company (Hébert & Link, 1982). The word *entrepreneur* was first published in 1755 and applied to risk-takers who bought or made products at a particular cost, only to then sell them at an uncertain price (Hébert & Link, 1982). *Nascent entrepreneurship* is defined as the propensity to take the initiative and risk by profiting through an individual's own business venture (Ahlin et al., 2014; Mushipe, 2013). While nascent entrepreneurship still exists, many prospective entrepreneurs have chosen different paths to

entrepreneurship and conduct their business from home due to the surge of technology, use of the internet, social media marketing, and organizational downsizing (Beeler et al., 2020; Di Domenico et al., 2014; Ferrell et al., 2010; Hanoteau & Rosa, 2019; Harrison & Hair, 2017; Salimath & Cullen, 2010).

The financial risk is low to moderate for joining NWM because distributors are charged varying costs for starting their own independent contracting business and in some cases are charged to stock inventory for demonstration or immediate selling (Groß & Vriens, 2019; Keep & Vander Nat, 2014; Ragland et al., 2015; Salimath & Cullen, 2010). The motivation for individuals to join NWM companies is derived from different sources such as a desire to increase income, achieve career status, or want to stay home with family, among other entrepreneurial motives (Groß & Vriens, 2019; Keep & Vander Nat, 2014; Ragland et al., 2015; Salimath & Cullen, 2010). Professional and personal support from others is needed and sought out once an individual becomes an NWM representative since societal support can help or hinder an individual's motivation to be successful while working from home (Ali, 2011). Therefore, while the risk is lower than nascent entrepreneurship, there is a high risk if relationships are challenged by either those who question the ethics of being a part of direct sales or by those who feel every conversation will now be about the sale and not the relationship (Ali, 2011; Beeler et al., 2020). According to Ragland et al. (2015), NWM attracts those with higher levels of education who want to earn in an alternative manner. They may have little upfront capital but also find the best success within collectivist environments with loved ones who provide support.

There were approximately 1100 direct sales type companies in the United States in 2016 that worked similarly to franchises (Direct Selling Association, 2016). The parent company offers voluntary training and provides support for those wanting to start and manage their own

business who do not know how to begin (Direct Selling Association, 2016; Groß & Vriens, 2019; Keep & Vander Nat, 2014; Ragland et al., 2015; Salimath & Cullen, 2010; Sethi et al., 2015). Some individuals begin working part-time as stay-at-home caretakers and grow their businesses through their network of friends and family. It is the relationships NWM entrepreneurs develop with their customers that contribute to their success as they form long-term personal communication and trust and show a genuine interest in the customer as an individual (Abeysekera & Jayakody, 2011; Beeler et al., 2020; Poon et al., 2017; Ragland et al., 2015). Entrepreneurship has been researched mainly in the business world; however, because it has been viewed as a mindset or a psychological construct originating from endogenous motives, it should be studied more within psychology fields (Baumgartner et al., 2013). Entrepreneurship is considered a workplace, although in the case of direct sales it is a non-traditional one (Welter, 2017). Therefore, if entrepreneurship is considered as a mindset and a place of work, it must be researched further under the I/O psychology umbrella (Keep & Vander Nat, 2014; Peterson & Wotruba, 1996).

Scholarly research to look at the relationship between entrepreneurship characteristics and NWM is scant (Peterson & Wotruba, 1996). One study by Sparks and Schenk (2006) explored organizational citizenship behaviors; they reviewed NWM teams and determined that those who communicated regularly and trained more effectively produced more cooperative members. Building on that study, Groß and Vriens (2019) found that transformational leadership among successful NWM entrepreneurs resulted in more satisfied and more financially productive teams. Those who did well in NWM joined for a higher purpose and created an enthusiastic, family-like atmosphere in which team members encouraged one another and envisioned a better future for their families (Groß & Vriens, 2019).

The task of building a successful NWM business requires traits the I/O psychology field studies and applies in organizations. It requires transformational leadership, the ability to leverage social networks and personal relationships, and the skills to provide product expertise and presentations (Ragland et al., 2015). Those characteristics require introspection into a person's abilities and willingness to perform direct selling tasks with innovation and operational, tactical, and strategic perspectives.

According to Gielnik et al. (2019), the number of individuals starting businesses has doubled in the past 10 years, yet only 12-23% of entrepreneurs are successful. The researchers studied the dynamics between self-efficacy and entrepreneurship and observed that self-efficacy can help or hinder achievement (Bandura, 1991; Gielnik et al., 2019). They combined research from psychology's social cognitive theory (Bandura, 1977) and sociology's control theory (Powers, 1973) to test perceived discrepancies between current and desired states of achievement in entrepreneurship. Gielnik et al.'s (2019) longitudinal study showed that variations in self-efficacy could be maladaptive when entrepreneurs were incorrect in their perception of their self-mastery. The notions of being your own boss, leading a team, and financial freedom are attractive, but the hard work and skillset that entrepreneurship requires are not always as appealing. Thus, many prospective entrepreneurs set out to start a business but ended up quitting before they really began (Gielnik et al., 2019). For the NWM entrepreneur, the business may begin with a quick start with tools and training from the company and the team they join; however, people's perceptions of their self-mastery may be questioned once they are on their own to build their own business and team. A purpose of this dissertation study was to evaluate how self-efficacy, among other traits, plays a role in goal achievement and mastery of direct sales.

Research Findings

A form of direct sales is Network Marketing (NWM), face-to-face or consumer-to-consumer selling; NWM skips the traditional retail sales brick-and-mortar shops (Albaum & Peterson, 2011; Direct Selling Association, 2016; Msweli-Mbanga & Lin, 2003; Msweli-Mbanga & Sargeant, 2001; Multilevel Marketing, 2007; Muncy, 2004). Although an NWM makes up a considerable percentage of the workforce with over 20 million workers in the United States alone, the NWM entrepreneur has not been sufficiently studied within I/O psychology (Direct Selling Association, 2016; Keep & Vander Nat, 2014). Attributes of NWM include working from home, building relationships with customers, and building upon individual characteristics that align with self-efficacy (Keep & Vander Nat, 2014; Msweli-Mbanga & Sargeant, 2001; Sethi et al., 2015). However, NWM has not been investigated within psychology extensively enough to determine if there is a direct link between entrepreneurship and self-efficacy (Keep & Vander Nat, 2014; Peterson & Wotruba, 1996).

Self-efficacy has been studied thoroughly and applied to various areas such as medicine, media studies, athletics, political and social change, education, and psychology (Bandura, 1997; Demo & Acock, 1988; Feist & Feist, 2006; Hines, 1997). The study of self-efficacy has helped in several clinical problems such as depression, phobias, social skills, smoking behavior, assertiveness, and moral development (Bandura, 1997). Furthermore, self-efficacy has been significant in studies of educational constructs such as academic achievement, problem-solving, career aspirations, and teaching (Pajares, 1996; Zimmerman et al., 1992). Evidence from various research reveals that the level of academic achievement can be predicted by perceived self-efficacy (Pajares, 1996; Zimmerman & Bandura, 1994; Zimmerman et al., 1992). Moreover, self-efficacy has proven to be a more reliable predictor of behavioral outcomes in psychology

and education than any other motivational constructs (Graham & Weiner, 1996). Additionally, the study of self-efficacy has vast implications in business. It has been found that employees who possess a high self-efficacy demonstrate more positive attitudes and exceptional performance at work when compared to those with low perceived efficacy (Loeb et al., 2016; Seong, 2016; Staples et al., 1998). Thus, it has been established by various researchers that self-efficacy beliefs are highly correlated to behavioral changes and outcomes. Therefore, the utilization of self-efficacy as a variable for this study could be considered a valuable predictor of behavior in NWM and entrepreneurialism.

Researchers may ask why a person would choose to push forward through the diverse hardships of direct sales and what a person finds within their self-mastery to succeed (Keep & Vander Nat, 2014; Peterson & Wotruba, 1996). There would be the question about whether a certain level of self-efficacy is needed for an individual to the necessary skill sets and perseverance required to develop those customer relationships and team-building techniques to the profitable outcome they have achieved. Other research might center on whether leaders in their field or members of the local moms club (for example) had the similar traits. The sample in this dissertation study was drawn from direct sales independent contractors who were home-based network marketing (NWM) distributors. Investigation of this growing trend may not only shed light on a line of work that has not been widely studied in psychology but may also provide business coaches further insight regarding how they might coach such individuals toward achieving their goals.

Critique of Previous Research Methods

A critique of previous research methods is challenging as the limited research on direct sales does not necessarily fit the criteria for a thorough critique. Because there is scant research

available investigating success and self-efficacy of the NWM entrepreneur, there is little controversy to discuss. The literature revealed articles, written over the past ten years, which discussed NWM history and internationalization, legality and ethical concerns, and business, technology, and social media networks (Babu & Anand, 2015; Beeler et al., 2020; Keep & Vander Nat, 2014; Sethi et al., 2015).

Recent research on direct sales revealed many articles discussing the growth and expansion of direct sales into international markets such as Russia, Colombia, Ghana, India, Romania, and the Netherlands (Babu & Anand, 2015; Droney, 2016; Franco & Gonzalez-Perez, 2016; Groß & Vriens, 2019; Racolța-Paina & Luncașu, 2014; Sethi et al., 2015). While these articles bring a global view of the growth in NWM, they do not contribute to the psychological understanding of direct sales success characteristics. There are numerous articles discussing ethical issues in MLM companies (Babu & Anand, 2015; Groß & Vriens, 2019; Keep & Vander Nat, 2014; Muncy, 2004; Sethi et al., 2015). These articles lend to the understanding of how NWM began and changes the industry went through over the past century. They show how the legality and ethical issues with each change helped to improve the direction of direct sales in terms of company product and sales education and promotion models.

Peer-reviewed studies that were conducted in the United States did not discuss direct sales within psychological constructs, rather they investigated business and technology concepts (Beeler et al., 2020; Ferrell et al., 2010; Harrison & Hair, 2017). Ferrell et al. (2010) studied how technology has helped direct selling companies manage their systems for independent contractors. Harrison and Hair (2017) studied how distributors have gained ground in their customer based by use of social media networks. Other studies were written about organizational constructs such as citizenship, communication, training, and leadership (Groß & Vriens, 2019;

Sparks & Schenk, 2006). Sparks and Schenk (2006) explored organizational citizenship behaviors; they reviewed NWM teams and determined that those who communicated regularly and trained more effectively produced more cooperative members. Groß and Vriens (2019) found that transformational leadership among successful NWM entrepreneurs resulted in more satisfied and more financially productive teams. Most recently, Peterson (2020) wrote about self-efficacy and sales and how the two are difficult to study as research has presented conflicting results, however, his article did not pertain to direct sales or work-from-home entrepreneurship.

The research literature indicates that researchers consider entrepreneurship as a mindset (Baumgartner et al., 2013) and a place of work that links it to I/O psychology (Nyberg & Wright, 2015; Salas et al., 2017). Researchers have linked self-efficacy to the workplace (Bandura, 1991; Joo & Nam, 2019; Loeb et al., 2016; Ozyilmaz et al., 2018; Peterson, 2020), and entrepreneurship to self-efficacy (Gielnik et al., 2019; Mobaraki & Zare, 2012). However, researchers have not linked NWM to any of these constructs. Entrepreneurship has been researched mainly in the business world; however, because it has been viewed as a mindset or a psychological construct originating from endogenous motives, it should be studied more within psychology fields (Baumgartner et al., 2013). Self-efficacy has been studied within varying disciplines and over the span of 60 years (Gielnik et al., 2019).

Most recently, Joo and Nam (2019) concluded that self-efficacy was most effected by intrinsic reinforcement from personal experiences of success at work, exposure to effective role models, social communication, and positive affective behavior at work. Ozyilmaz et al. (2018) studied how organizational trust increased self-efficacy that resulted in positive effects on job satisfaction, task performance and citizenship. Scholars studied the dynamics between self-efficacy and entrepreneurship and observed that self-efficacy can help or hinder achievement

(Bandura, 1991; Gielnik et al., 2019). Gielnik et al. (2019) felt that studying achievement in entrepreneurship required the study of self-efficacy (Bandura, 1977) as well as control theory (Powers, 1973). Gielnik et al.'s (2019) longitudinal study showed that variations in self-efficacy could be maladaptive when entrepreneurs were incorrect in their perception of their self-mastery. The study lent valuable information for understanding how high self-efficacy can cause individuals to underestimate difficulties in goal achievement and thus an inflation of self-assessment of capabilities. Their study of self-efficacy and entrepreneurialism shows how one might have the necessary mindset for starting a business but not have the traits needed for maintained success (Gielnik et al., 2019).

Researchers have investigated entrepreneurship and self-efficacy, but they do not know how direct selling is associated with those two constructs, or if self-efficacy predicts NWM entrepreneurial success and at what level. A study encompassing all those variables has yet to be done; thus, there is a gap in research to bring those attributes together so that there will be a more extensive understanding of success among highly paid NWM distributors (Peterson, 2020; Ragland et al., 2015). The contribution of this study to the I/O psychology field may help in filling this gap and set the stage for further study into the psychology and business of network marketing.

Summary

Chapter 2 examined self-efficacy and NWM entrepreneurial traits to see if there is a way to predict success in direct sales. The history of direct sales was presented to help understand why this population should be studied further. The chapter showed how NWM characteristics, self-efficacy, and reciprocal determinism play a role in self-mastery and achievement goals. Chapter 2 presented a review of the literature concerning self-efficacy, direct sales, and

entrepreneurship. The chapter also included a discussion of the purpose of this study, methods of search, theoretical framework, synthesis of the findings, and critique of previous research. The literature confirmed the need for this study because although self-efficacy and entrepreneurship have been well researched, investigations that pair those constructs with NWM has not been investigated. Chapter 3 discusses the purpose of the study further and presents the research questions, hypotheses, and research design. There is also a description of the target population and participant selection, procedures used to conduct the study, the instruments used to collect the data, and ethical considerations.

CHAPTER 3. METHODOLOGY

Chapter 3 describes the methods and procedures used in this quantitative study to answer the overarching research question, “Can entrepreneurial success in NWM be predicted?” The methodology and design of the study was quantitative, and a non-experimental, survey-based, cross-sectional regression analysis was employed. There was only one group, assessed once, that fell first within a non-probability, purposive parameter of limitations, and then was recruited using a snowball sampling method (Leedy & Ormrod, 2010; Warner, 2013). A quantitative methodology was best to study the quantifiable variables for a correlation or relationship between variables that could generate a prediction of traits for success in direct sales (Leedy & Ormrod, 2010; Warner, 2013).

Data from this non-experimental study were analyzed using a multinomial logistic regression (mlogit). The mlogit is a statistical analysis that determines how the logistical probabilities of outcomes are predicted by a combination of independent predictor variables (El-Habil, 2012; Hosmer et al., 2013). The mlogit was the best analysis for this study because the outcome variable was nominal with more than two levels (Hosmer et al., 2013; Jong et al., 2019). The binary regression test for each possible pair of outcomes examined the likelihood of the placement of the outcome variable (El-Habil, 2012; Hosmer et al., 2013).

Purpose of the Study

The purpose of the study was to determine if there was a statistically significant relationship between self-efficacy and other factors (independent/predictor variables) and direct

sales success as represented in income levels (dependent/outcome variable). The quantitative research design addressed the research questions by analyzing 91 survey items from volunteers across 23 states and 25 different direct sales companies. The purpose of the study was also to fill a gap in I/O psychology research and between research conducted in the United States versus international research in which NWM distributors' entrepreneurial traits were examined (Ali, 2011). This dissertation researcher examined whether entrepreneurial success in NWM could be predicted and whether results could inform the field of I/O psychology and the direct sales industry regarding the significance of the association between self-efficacy, six other factors, and direct sales.

Research Questions and Hypotheses

The following research questions, sub-questions, and hypotheses were formed for an investigation into predictors variables for NWM success:

Primary research question: Can entrepreneurial success in network marketing be predicted?

H_{0_0} : Entrepreneurial success in network marketing cannot be predicted.

H_{1_0} : Entrepreneurial success in network marketing can be predicted.

Sub-Question 1. Can entrepreneurial success in network marketing be predicted by the collective variables of how long they have been in business, their motivation for joining, hours worked per week, number of people on a team, self-efficacy, age, and education level?

H_{0_1} : Entrepreneurial success in network marketing scores on the collective variables of how long they have been in business, their motivation for joining, hours worked per week, number of people on a team, self-efficacy, age, and education level do not significantly contribute to the prediction of monthly income.

H_{1_1} : Entrepreneurs' scores on the collective variables of how long they have been in business, their motivation for joining, hours worked per week, number of people on a team, self-efficacy, age, and education level do significantly contribute to the prediction of monthly income.

Sub-Question 2. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by how long they have been in business?

H_{0_2} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by how long they have been in business.

H_{1_2} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by how long they have been in business.

Sub-Question 3. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by their motivation for joining?

H_{0_3} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by their motivation for joining.

H_{1_3} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by their motivation for joining.

Sub-Question 4. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by hours worked per week?

H_{0_4} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by hours worked per week.

H_{1_4} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by hours worked per week.

Sub-Question 5. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by the number of people on a team?

H_{0_5} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by number of people on a team.

H_{1_5} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by number of people on a team.

Sub-Question 6. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by self-efficacy?

H_{0_6} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by self-efficacy.

H_{1_6} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by self-efficacy.

Sub-Question 7. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by age?

H_{0_7} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by age.

H_{1_7} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by age.

Sub-Question 8. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by education level?

H_{0_8} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by education level.

H_{1_8} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by education level.

Research Design

The research design comprised a quantitative, non-experimental, cross-sectional survey study that measured the predictive relationship between self-efficacy and other predictive factors and entrepreneurial success in NWM (Leedy & Ormrod, 2010). A quantitative, non-experimental design was chosen in order for the researcher to collect preliminary data on the population being studied and because of the amount and nature of the variables being measured. The survey was conducted using Survey Monkey's online survey software that measured one group that fell within the non-probability, purposive parameter of limitations. Recruitment was accomplished using a snowball sampling method (Leedy & Ormrod, 2010; Survey Monkey, n.d.). Data from the study were analyzed using a mlogit. The mlogit is a statistical analysis that determines how the logistical probabilities of outcomes are predicted by a combination of independent predictor

variables (El-Habil, 2012). The mlogit was the best analysis for this study because the outcome variable is multinomial (i.e., categorical) with more than two levels using one or more predictor variables (El-Habil, 2012; Hosmer et al., 2013; Jong et al., 2019). The binary regression test for each possible pair of outcomes examined the likelihood of the placement of the outcome variable (Hosmer et al., 2013).

The data were collected via a demographic questionnaire and the New Generalized Self-Efficacy Scale (Chen et al., 2001). The survey was given to consenting participants who fell within the following parameters of the study: (a) they were required to be at least 18 years of age, (b) involved in NWM for at least 6 months, and (c) were residents of the United States. The predictor variables included characteristics of NWM distributors that encompassed the length of time in business, their motivation for joining, hours worked per week, number of people on their team, self-efficacy, age, and education level. The outcome variable was the monthly income level which was defined and divided into four levels:

- Success Level 1 = over a 6-month average, less than \$1,000/month from direct sales income alone (\$12,000 annually or less).
- Success Level 2 = over a 6-month average, at least \$1000 but no more than \$4,199/month from direct sales income alone (\$12,000-\$50,400 annually).
- Success Level 3 = over a 6-month average, at least \$4,200 but no more than \$8,499/month from direct sales income alone (\$50,400-\$102,000 annually).
- Success Level 4 = over a 6-month average, at least \$8,500/month from direct sales income alone (\$102,000 annually or more).

Target Population and Sample

Population

The population selected for this study were NWM entrepreneurs in the United State who sold products or services and sponsored new distributors to their sales team. The study was open

to any qualified NWM distributor according to the inclusion criteria. The study was also open to any NWM distributor from any direct sales company in any location throughout the United States. The study did not discriminate for the type of product or service sold by the distributor. According to the Direct Selling Association (2016), some notable statistics about this NWM population include 5.3 million U.S. workers, of which 800,000 are full time, 74% are women, 8.2% are under the age of 25, 26% are 35–44, 6.8% are 65+, 77% are White, 20% are Latinos, and 52% are college graduates.

Sample

The sample was comprised of NWM distributors. Qualified distributors included those who currently reside in the United States, were at least 18 years of age, and had been working in NWM for at least 6 months. The criteria for working in NWM for 6 months meant they had been collecting a paycheck for at least that long. The income level selected from the participant did not include income from outside NWM. The sample represented various states ($n = 23$) and direct sales and network marketing companies ($n = 25$) from around the United States.

Power Analysis

The mlogit was conducted by using a series of binary logistic regressions, a procedure that requires information to be known before data collection; since that is not possible, many researchers have suggestions as to how to conduct an a priori power analysis in order to determine the sample size for a study using the mlogit. An a priori power analysis was conducted to determine the necessary sample size ensure that the results were powerful enough to detect a significant difference given the effect size of a study.

Typically, G*Power software is used to calculate the sample size for a study. However, the mlogit regression model is not a statistical analysis currently supported by G*Power

software; therefore, other methods of determining the appropriate sample size for this study were considered. There were a few articles in the research literature that suggested possible methods of determining the proper sample size for a study using a mlogit regression analysis (Hosmer et al., 2013; Intellectus Statistics, 2017; Jong et al., 2019). Researchers suggested that a minimum of 10 events (i.e. participant answers) per predictor variable should be observed (Hosmer et al., 2013; Jong et al., 2019). Based on those suggestions, and the seven predictor variables included in this study, a minimum sample size of 70 would suffice to achieve empirical validity.

Regardless of the method chosen to determine an accurate sample size when using a mlogit regression, there must always be more observations (i.e., the participants' data) than the number of predictor variables included in this study (Hosmer et al., 2013; Jong et al., 2019). An increase in the number of observations increases the validity of the results (i.e., increases the probability of correctly determining what individual predictor variables in the model significantly predict the outcome variable).

Procedures

Participant Selection

The non-probability purposive sample was composed of individuals in the direct sales industry (Leedy & Ormrod, 2010; Warner, 2013). The researcher used a snowball sampling method, and potential participants were asked to complete the study's online survey. Volunteers were recruited by social media, email, word-of-mouth, and in person at community events. Prospective participants were also asked to share study details with others they knew in NWM. Inclusion criteria required that participants be adults at least 18 years of age, reside in the United States, and had been collecting income from an NWM company for at least 6 months to qualify. The study was not dependent upon the type of product NWM distributors sold; they were only

required to be earning a monthly income. Prospective participants were excluded from the study if they did not meet the inclusion criteria or did not give consent at the beginning of the survey.

Protection of Participants

For the protection of volunteers, identifying information was not collected during the study. Consenting participants took the online assessment anonymously; the results were collected by Survey Monkey, a web-based provider (Survey Monkey, n.d.). The SSL encryption was enabled, and the IP address tracking was disabled in the survey software (Survey Monkey, n.d.). Participants were first presented with the consent form which provided details about the study and links to the survey software's privacy policy and security statement. Data were collected using a series of demographic questions and a self-efficacy assessment that was given to willing participants who fell within the parameters of the study. Participants were told in their consent form that they could leave the study at any time (American Psychological Association, 2010). There was no incentive offered for participants.

Data Collection

The dissertation researcher created an online survey that included questions pertaining to all the variables. The data on the predictability of success in NWM were collected using a series of demographic questions and a self-efficacy assessment that was given to willing participants who fell within the parameters of the study. Consenting participants took the 5-minute assessment online anonymously; a web-based provider (i.e., Survey Monkey) collected the results. The predictor variables contained characteristics of NWM distributors that included length of time in business, their motivation for joining, hours worked per week, number of people on their team, self-efficacy, age, and education level. The outcome variable was the monthly income level that was defined and divided into four nominal levels.

Participants who gave their consent for the online survey advanced to the demographic portion of the survey. Once participants completed the 11 demographic questions, they received instructions to complete the New Generalized Self-Efficacy Scale (NGSE) portion of the survey (Chen et al., 2001). Permission was given by the scale authors for its use without written notice if used for research purposes and was cited properly. Once participants completed the NGSE, they were directed to a page thanking them for their time and participation in the study. If a participant chose to withdraw from the study at any time, they were redirected to a page thanking them for their time, and there was no further access to the survey.

Survey data were kept in electronic form and password-protected on a separate hard drive. The hard drive was kept in a fireproof and safety lockbox that is locked in the residence of the researcher (American Psychological Association, 2010; Data Security & Destruction, n.d.). Only the researcher, the researcher's supervisor, and the dissertation committee had access to the study data. Additionally, Capella University's Institutional Review Board (IRB), the Research Compliance Committee, or its designees may review the research records.

Data Analysis

The quantitative data analyzed in this study were income level (DV; nominal), length of time in business (IV; interval), motivation for joining (IV; nominal), hours worked per week (IV; interval), number of people on team (IV; ratio), self-efficacy (IV; interval), age (IV; interval), and education level (IV; interval). Raw data were collected using Survey Monkey online survey software and a secure web server in which the participant's responses were saved and exported into an encrypted Microsoft Excel spreadsheet. The data were organized in Excel using a code system to identify each survey answer, the variables, and each category level. The data were then uploaded to the Intellectus Statistics online computer software for analysis and reporting

(Intellectus Statistics, 2017). Intellectus Statistics was chosen for its ease of uploading and manipulating data for a mlogit. The uploaded data in Intellectus Statistics were analyzed using the mlogit and labeled for descriptive statistics to examine the linear relationships among variables and find multiple log odds and probabilities (Warner, 2013).

To examine the research question, the mlogit was used to investigate whether the length of time in business, motivation for joining, hours worked per week, the number of people on a team, self-efficacy, age, and education level (independent variables) would predict the levels of income (dependent variable). The mlogit was an appropriate statistical analysis since the purpose of the research was to assess if a set of nominal, ordinal, or interval/ratio predictor variables would predict a dependent variable with more than two levels (El-Habil, 2012; Hosmer et al., 2013; Jong et al., 2019).

Mlogit analysis, by design, can overcome restrictive assumptions of linear regression. For example, normality and homoscedasticity of the residuals were not assumed (Roberts & Ilardi, 2008). There were a number of assumptions that the logistic regression did require (Warner, 2013): (a) the outcome variable should be measured at the nominal level, (b) there should be no outliers, (c) one or more predictor variables that are continuous, ordinal or nominal, (d) observations should be independent, and (e) there should be no multicollinearity.

Multicollinearity occurs when two or more independent variables are highly correlated with each other (Stevens, 2009; Warner, 2013). Multicollinearity was assessed by calculating variance inflation factors (VIF). VIF values over 10 would suggest the presence of multicollinearity (Menard, 2009).

The overall model significance for the mlogit was examined by the collective effect of the independent variables using the χ^2 omnibus test of model coefficients. McFadden's R^2 was

used to estimate the variability accounted for by the independent predictor variable. The Wald coefficient was used to assess individual predictors. Predicted probabilities of an event occurring were determined by $\text{Exp}(B)$, the odds ratio. For significant predictors, an odds ratio greater than one indicates that with a one-unit increase in the independent variable, the dependent variable will be X times more likely to be coded 1 (Intellectus Statistics, 2020). Significant predictors with an odds ratio of less than one will be evaluated by $1/\text{Exp}(B)$, meaning that a one-unit increase in the independent variable will be X times more likely to be coded 0. Finally, the response category of income used for the mlogit was Success Level 1, since it had the highest number of observations (Schroeder, 1990; Senaviratna & Cooray, 2019). The highest level of success would have been Success Level 4; however, it only had nine observations. The best fit for the model was to use Level 1 to stay within the parameters of the model.

Descriptive analysis. Descriptive statistics were used to summarize the demographic data percentages transcribed within frequency tables. The frequency tables identified the number of observations within each category. Descriptive statistics were also used to show the mean, standard deviation, variance, skewness, and kurtosis for the interval variables (i.e., age, education, length, self-efficacy, team size, and hours).

Hypothesis testing. The hypothesis for the overarching research question was, “Entrepreneurial success in network marketing cannot be predicted.” The research question hypothesis and all sub-question hypotheses were tested using the mlogit to determine whether there were correlations between the outcome variable (income) and the predictor variables (length, motivation, hours, team size, self-efficacy, age, and education level). The mlogit was chosen because the test can determine if the independent variables (length, motivation, hours, team size, self-efficacy, age, and education level) are predictive of the dependent variable

(income) with more than two levels (El-Habil, 2012; Hosmer et al., 2013; Jong et al., 2019; Menard, 2009).

Instruments

An online survey was prepared by this dissertation researcher, and questions pertaining to most of the variables were created, except for the NGSE (Chen et al., 2001). Self-efficacy was the focal point of all the variables considered, therefore, the NGSE was included in the survey to assess self-efficacy levels (Chen et al., 2001). The demographic information that was collected included the following: U.S. state of residency, name of direct sales company, gender, and employment status (not including NWM business). Other questions on the survey asked about predictor variables (length of time in business, motivation for joining, hours worked per week, team size, self-efficacy, age, and education level). The last set of questions included those from the NGSE.

New Generalized Self-Efficacy Scale

The self-efficacy assessment used was the NGSE, an 8-item self-report that measures individuals' perceptions of their ability to perform across a variety of different situations (Chen et al., 2001). The total self-efficacy score from participants indicate their perception of the ability to perform successfully. The NGSE was chosen because of its capability to measure an individual's perception of their abilities in an entrepreneurial environment (Urban, 2010). Permission was given by the scale authors for use, without written notice, for research purposes when cited properly. The scale questions were embedded in the survey system (i.e., item 8 in the survey). The assessment took less than 5-minutes to complete and assessed individuals on a five-point Likert scale (5 = *strongly agree*, 1 = *strongly disagree*) for a total score outcome ranging from high self-efficacy to low self-efficacy. The overall self-efficacy scores derived from the

NGSE were used in the analysis. Table 1 presents the self-efficacy scores categories that were used for analysis.

Table 1

Interval Self-Efficacy Scale

Score Range	Categorization	Interpretive Guideline
36-40	High	High level of perception to perform successfully
32-35	Above Average	Above average level of perception to perform successfully
28-31	Average	Average level of perception to perform successfully
24-27	Below average	Below average level of perception to perform successfully
8-23	Low	Low level of perception to perform successfully

Validity. The NGSE was created after the psychometric stability of the Generalized Self-Efficacy Scale (GSE) and Sherer General Self-Efficacy Scale (SGSE) were questioned (Sherer & Adams, 1983; Sherer et al., 1982). Chen et al. (2001) conducted three studies in which they re-worded and re-assessed the individual items until they created an assessment that outperformed the previous tests. Once they compared the psychometric properties, including validity and interpretability, to the previous versions, they found the NGSE to have higher construct validity and reliability than other self-efficacy measures (Chen et al., 2001). Predictive validity showed positive and significant results ($\phi = .15$ to $.43$, $p < .001$) when compared to the GSE and the SGSE (Chen et al., 2001).

Reliability. The internal consistency and reliability of the NGSE were sampled on undergraduate students in multiple countries. Cronbach's alpha coefficients of $.86$ and $.90$ were reported. There was a test-retest coefficient of $.64$ (Chen et al., 2001).

Ethical Considerations

Ethical considerations were made, and the study presented minimal risk for participants. Potential participants were recruited in three ways, either face-to-face at community events, email, or social media. A snowball sampling was also used to find and recruit more potential participants (American Psychological Association, 2010; U.S. Department, 1979). Participating in a 5-minute online survey format required little effort from the participant and limited the overall intrusiveness of the survey experience. The online format also forced the researcher to practice justice in research since this format allowed any person to be considered for participation if they met the inclusion criteria. Informed consent was required prior to entering the study and participants were given the opportunity to end the survey at any time (American Psychological Association, 2010; U.S Department, 1979). The SSL encryption was enabled, and the IP address tracking was disabled in the survey software to protect the participants and maintain anonymity (Survey Monkey, n.d.). There was no ill intent to harm, deceive, or force participants (American Psychological Association, 2010). The study was approved by the Institutional Review Board (IRB) of Capella University. The collected data were downloaded to a password-protected private external hard drive, stored for 7 years, and at that time will be destroyed (Leedy & Ormrod, 2010; Survey Monkey, n.d.). The hard drive will be kept in a fireproof and safety lockbox that is locked in the residence of the researcher (American Psychological Association, 2010; Data Security & Destruction, n.d.; Survey Monkey, n.d.).

Summary

Chapter 3 described the research methodology, population and sample size, and data collection procedures. The instruments used, data analysis procedures, and ethical considerations were also discussed. The purpose of the study was to determine the predictive variables in direct

sales and to fill the gap in psychological research in the United States from the direct sales industry. The design was quantitative and non-experimental; it measured the predictive relationship between self-efficacy and other predictive factors and entrepreneurial success in NWM. Chapter 4 discusses the findings of the data analysis and presents the results of the study. Chapter 5 provides a discussion of the implications of the results, conclusions, limitations, and recommendations for further research.

CHAPTER 4. RESULTS

This dissertation has presented an introduction to the research topic, problem, and design in Chapter 1. The theoretical framework and literature review were discussed in Chapter 2. And the methodology and procedures used for data collection and analysis was described in Chapter 3. Chapter 4 provides a non-evaluative account of the reporting data including a description of the sample, hypothesis testing, and statistical analysis. The results will be evaluated and interpreted in Chapter 5.

Background

The purpose of this study was to determine if there was a statistically significant relationship between self-efficacy and other predictive factors and direct sales success and to fill the gap in current U.S. psychological research from the direct sales industry. The study is relevant because there are over 20 million direct sales entrepreneurs in the United States, but there is scant research applicable to the direct sales industry or the field of psychology (Ali, 2011; Direct Selling Association, 2016). The study used a quantitative, non-experimental design approach. Data were collected via an online survey through a web software provider. The sample comprised of NWM distributors who currently reside in the United States, were at least 18 years of age, and had worked in NWM (i.e., collecting a paycheck) for a period of at least 6 months. Data were then uploaded into Intellectus Statistics for analysis.

The following research questions, sub-questions, and hypotheses were formed for an investigation into predictors variables for NWM success:

Primary research question: Can entrepreneurial success in network marketing be predicted?

H_{0_0} : Entrepreneurial success in network marketing cannot be predicted.

H_{1_0} : Entrepreneurial success in network marketing can be predicted.

Sub-Question 1. Can entrepreneurial success in network marketing be predicted by the collective variables of how long they have been in business, their motivation for joining, hours worked per week, number of people on a team, self-efficacy, age, and education level?

H_{0_1} : Entrepreneurial success in network marketing scores on the collective variables of how long they have been in business, their motivation for joining, hours worked per week, number of people on a team, self-efficacy, age, and education level do not significantly contribute to the prediction of monthly income.

H_{1_1} : Entrepreneurs' scores on the collective variables of how long they have been in business, their motivation for joining, hours worked per week, number of people on a team, self-efficacy, age, and education level do significantly contribute to the prediction of monthly income.

Sub-Question 2. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by how long they have been in business?

H_{0_2} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by how long they have been in business.

H_{1_2} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by how long they have been in business.

Sub-Question 3. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by their motivation for joining?

H_{0_3} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by their motivation for joining.

H_{1_3} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by their motivation for joining.

Sub-Question 4. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by hours worked per week?

H_{0_4} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by hours worked per week.

H_{1_4} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by hours worked per week.

Sub-Question 5. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by the number of people on a team?

H_{0_5} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by number of people on a team.

H_{1_5} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by number of people on a team.

Sub-Question 6. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by self-efficacy?

H_{0_6} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by self-efficacy.

H_{1_6} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by self-efficacy.

Sub-Question 7. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by age?

H_{0_7} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by age.

H_{1_7} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by age.

Sub-Question 8. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by education level?

H_{0_8} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by education level.

H_{1_8} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by education level.

Description of the Sample

The required sample size was 70 participants, as suggested by previous literature (El-Habil, 2012; Hosmer et al., 2013; Jong et al., 2019; Menard, 2009). There were 113 responses to the survey with an 81% completion rate. Of those who opened the survey, one individual did not give consent, 10 individuals did not qualify, and 11 individuals left the study at various points. The average amount of time spent taking the survey was 4 minutes. The final sample consisted of 91 NWM participants from 25 different direct selling companies; there were 90 female participants ($n = 90, 99\%$) with one male participant ($n = 1, 1\%$). Frequencies and percentages are presented for all eight variables and demographic information. Summary statistics were calculated for each interval and ratio variables.

Descriptive Statistics

Frequencies and percentages were calculated for all variables regardless of the level of measurement because a coding system was used, making mean observations difficult to interpret. Summary statistics were calculated for each interval and ratio variable.

State. Frequencies and percentages were calculated for the location of the participant by state. The most frequently observed category of state was Colorado ($n = 38, 42\%$). Frequencies and percentages are presented in Table 2.

Table 2

Frequency Table for State

State is Variable	n	%
Colorado	38	41.76
Missouri	3	3.30
Arizona	2	2.20

Table 2. Frequency Table for State (continued)

State is Variable	<i>n</i>	%
California	12	13.19
Washington	3	3.30
Texas	4	4.40
Tennessee	1	1.10
Iowa	2	2.20
New Mexico	2	2.20
Florida	4	4.40
Oklahoma	3	3.30
Kentucky	2	2.20
Indiana	1	1.10
Virginia	2	2.20
New York	1	1.10
Oregon	2	2.20
North Carolina	3	3.30
Maryland	1	1.10
North Carolina	3	3.30
Maryland	1	1.10
Georgia	1	1.10
Pennsylvania	1	1.10
Michigan	1	1.10
New Jersey	1	1.10
South Carolina	1	1.10

Note. Due to rounding errors, percentages may not equal 100%.

Employment. This question pertained to work status separate from NWM. The most frequently observed category of employment was full-time employment ($n = 28, 31\%$).

Frequencies and percentages are presented in Table 3.

Table 3*Frequency Table for Employment*

Employment is Variable	<i>n</i>	%
Employed, working full-time	28	30.77
Employed, working part-time	11	12.09
Not employed, looking for work	1	1.10
Not employed, NOT looking for work	17	18.68
Retired	7	7.69
Disabled, not able to work	1	1.10
Stay-at-home parent/caretaker	24	26.37
Full-time student	2	2.20

Note. Due to rounding errors, percentages may not equal 100%.

Income. The most frequently observed category of income was those making less than \$1000 per month ($n = 44$, 48%). Frequencies and percentages are presented in Table 4.

Table 4*Frequency Table for Income*

Income is Variable	<i>n</i>	%
Success Level 1: < \$1,000/month	44	48.35
Success Level 2: \$1,000–\$4,199/month	25	27.47
Success Level 3: \$4,200–\$8,499/month	13	14.29
Success Level 4: \$8,500/month or more	9	9.89

Note. Due to rounding errors, percentages may not equal 100%.

Motivation. The most frequently observed category of motivation for joining was the hope for financial freedom ($n = 33$, 36%). The item “To get out of the house” was omitted with 0 observations. Frequencies and percentages are presented in Table 5.

Table 5*Frequency Table for Motivation*

Variable	<i>n</i>	%
To get discounts on the products	32	35.16
The hope for financial freedom	33	36.26
The desire to own a business and be your own boss	20	21.98
For the self-development that is provided by the company	3	3.30
To get out of the house	0	0
To use your corporate talents for network marketing success	2	2.20
For the desire to lead your own team	1	1.10

Note. Due to rounding errors, percentages may not equal 100%.

Frequencies and percentages for the remaining variables. The most frequently observed categories were: (a) length of time in NWM was 5–10 years ($n = 23$, 25%); (b) category of hours per week was 11–20 hours ($n = 30$, 33%); (c) category of education was a bachelor's degree ($n = 35$, 38%); (d) category of age was 36–45 ($n = 25$, 31%); (e) category of NGSE scores was 40 (i.e., high self-efficacy) ($n = 16$, 18%); and (f) category of team size was 5–50 team members ($n = 54$, 59%). Frequencies and percentages are presented in Table 6.

Table 6*Frequency Table for Nominal Variables*

Variable	<i>n</i>	%
Length		
Less than 1 year	16	17.58
1 year–less than 3 years	21	23.08
3 years–less than 5 years	20	21.98
5 years–less than 10 years	23	25.27
10 years or more	11	12.09

Table 6. *Frequency Table for Nominal Variables (continued)*

Variable	<i>n</i>	%
Hours		
< 5	18	19.78
5–10	23	25.27
11–20	30	32.97
21–30	14	15.38
31–40	4	4.40
40 <	2	2.20
Education		
No degree	1	1.10
High school degree or GED	18	19.78
Associate's Degree	19	20.88
Bachelor's Degree	35	38.46
Master's Degree	16	17.58
Doctorate Degree	2	2.20
Age		
18–25	1	1.10
26–35	5	27.47
36–45	8	30.77
46–55	1	23.08
56–65	5	16.48
66 or older	1	1.10
NGSE		
27	1	1.10
30	2	2.20
31	9	9.89
32	1	12.09
33	2	2.20
34	3	14.29
35	7	7.69
36	8	8.79
37	9	9.89
38	3	3.30
39	0	10.99
40	6	17.58
Team size		
0–50	4	59.34
51–100	9	9.89
101–200	8	8.79
201–500	9	9.89
501 <	1	12.09

Note. Due to rounding errors, percentages may not equal 100%. NGSE = the New Generalized Self-Efficacy Scale.

Summary statistics. Interval and ratio variables were evaluated for symmetry and outliers. There were no variables with a skewness greater than 2 in absolute value, therefore, all interval and ratio variables were considered to be symmetrical about its mean. There were no variables with a kurtosis greater than or equal to 3, therefore, variable distributions were considered normal with no outliers (Westfall & Henning, 2013). The summary statistics can be found in Table 7 and show symmetry with no outliers.

Table 7

Summary Statistics Table for Interval and Ratio Variables

Variable	<i>M</i>	<i>SD</i>	<i>n</i>	<i>SE_M</i>	Min	Max	Skewness	Kurtosis	<i>Mdn</i>
Length	2.91	1.30	91	0.14	1.00	5.00	0.01	-1.13	3.00
Hours	2.64	1.16	91	0.12	1.00	5.00	0.22	-0.71	3.00
Education	2.57	1.03	91	0.11	1.00	4.00	-0.22	-1.10	3.00
Age	2.30	1.07	91	0.11	1.00	4.00	0.26	-1.17	2.00
NGSE	2.45	0.72	91	0.08	1.00	3.00	-0.91	-0.52	3.00
Team size	2.05	1.48	91	0.15	1.00	5.00	1.00	-0.58	1.00

Note. NGSE = the New Generalized Self-Efficacy Scale.

Description of the Coding Process

Questions and answers from the online survey were coded into variable categories and levels for the mlogit model. This section shows the coded categories and levels after items were merged or omitted (see Chapter 3, Data Analysis). The characters in parenthesis represent the code.

1. Demographic Information

Location: U.S. State (1–50)

Name of Network Marketing Company

- Sex: Male (1), Female (2)
2. What is your employment Status (not including NWM business)?
- Employed: full-time (1), part-time (2)
- Non-Employed: looking (3), not looking (4)
- Retired (5)
- Disabled, not able to work (6)
- Stay-at-home parent/caretaker (7)
- Full-time student (8)
3. How long have you been working for your network marketing company? (length)
- Less than 1 year (1)
- 1 year–less than 3 years (2)
- 3 years–less than 5 years (3)
- 5 years–less than 10 years (4)
- 10 years or more (5)
4. What was your motivation for joining network marketing? Please select the one that carries the most weight for your decision. (motivation)
- To get discounts on the products. (1)
- The hope for financial freedom. (2)
- The desire to own a business and be your own boss. (3)
5. How many hours per week do you dedicate toward your network marketing company? (hours)
- Less than 5 (1)
- 5–10 (2)
- 11–20 (3)
- 21–30 (4)
- 31 or more (5)
6. How many people do you have on your team, in which you are the head of the team? In other words, how many are in your downline? (team size)
- 0–50 (1)
- 51–100 (2)
- 101–200 (3)
- 201–500 (4)

- 501 or more (5)
7. What is your age? Please select your age range. (age)
- 18–35 (1)
 - 36–45 (2)
 - 46–55 (3)
 - 56 or older (4)
8. What is your education level? (education)
- No degree, high school degree or GED (1)
 - Associate Degree (2)
 - Bachelor’s Degree (3)
 - Master’s Degree or Doctoral Degree (4)
9. Please select the amount of income you receive per month from your network marketing company alone. Do not include any other income. (income)
- (Success Level 1) = over a 6-month average, less than \$1,000/month from direct sales income alone (\$12,000 annually or less)
- (Success Level 2) = over a 6-month average, at least \$1000 but no more than \$4,199/month from direct sales income alone (\$12,000-\$50,400 annually)
- (Success Level 3) = over a 6-month average, at least \$4,200 but no more than \$8,499/month from direct sales income alone (\$50,400-\$102,000 annually)
- (Success Level 4) = over a 6-month average, at least \$8,500/month from direct sales income alone (\$102,000 annually or more)
10. The NGSE scores were merged to describe the below average to average scores, above average scores, and high self-efficacy scores. The NGSE measure’s 8 items are rated on a 5-point Likert-type scale from strongly disagree (1) to strongly agree (5).
- Below Average to Average: scores 27– 31 (1)
 - Above Average: scores 32–35 (2)
 - High Self-Efficacy: scores 36–40 (3)

Hypothesis Testing

To examine the overarching research question, the mlogit was used to investigate whether length of time in business, motivation for joining, hours worked per week, number of people on team, self-efficacy, age, and education level (independent variables) predicted success, in the levels of income (dependent variable). The data was uploaded to the Intellectus Statistics

online software for analysis and reporting. The mlogit model is used to explore associations between outcome variable categories and potential explanatory variables to predict which category an individual is more likely to belong to (Hosmer et al., 2013; Jong et al., 2019; Menard, 2009). For mlogit regression models, a base category (i.e., reference group) is selected for the outcome group (Hosmer et al., 2013; Jong et al., 2019; Menard, 2009). The coefficients for all the other outcome groups describe how the independent variables are related to the probability of being in that group versus the reference group. Using a base option, Success Level 1 was chosen for the baseline comparison group because it was the strongest category of income with 48% of participants included in that category. A mlogit regression analysis was conducted to assess if length, hours, education, motivation, age, NGSE, and team size had a significant effect on the odds of observing each response category of income relative to Success Level 1.

Initially, there was difficulty running the mlogit because the sample size was too small in some category levels. Logistic regression models use maximum likelihood to estimate the parameters, which generally requires a minimum of 10 observations per parameter for the results to be considered accurate (Intellectus Statistics, 2017; Hosmer et al., 2013; Jong et al., 2019). The mlogit model will still run as long as there are at least three observations per level but with a small sample size warning. It is best to omit or merge data to fit the parameters without damaging the other datasets (Schroeder, 1990; Senaviratna & Cooray, 2019). Therefore, for the nominal predictor variable, motivation, levels 4–7 (i.e., for self-development $n = 3$, to get out of the house $n = 0$, to use corporate talents in NWM $n = 2$, and desire to lead own team $n = 1$) were omitted since each level contained three or fewer observations. The nominal variable, motivation, is qualitative in nature, and therefore, could not be merged. For the interval predictor variable hours, Levels 5 (31–40) and 6 (40 or more) were combined to create six observations for

a new Level 5 (31 or more hours). For the interval predictor variable age, Level 1 (18–25) was merged with Level 2 (26–35) to create 26 observations for a new Level 1 (18–35) because the original Level 1 only had one observation. Also, for the age variable, Level 5 (56–65) was merged with Level 6 (66 or older) to create 16 observations for a new Level 5 (56 or older) since the original Level 6 only had one observation. For the interval predictor variable education, Level 1 (no degree) was merged with Level 2 (high school degree or GED) to create 19 observations for a new Level 1 (no degree to high school degree or GED) since the original Level 1 only had one observation. Also, for education, Level 5 (Master’s Degree) was merged with Level 6 (Doctorate) to create 18 observations for a new Level 5 (Master’s or Doctorate) since the original Level 6 only had two observations. Finally, for the interval predictor variable of self-efficacy, the NGSE scores were merged to describe the below-average to average scores, above-average scores, and high self-efficacy scores. The NGSE scores 27–31 were merged to represent 12 observations in the below-average to average level. The NGSE scores 32–35 were merged to represent 33 observations in the above-average level, and the NGSE scores 36–40 were merged to represent 46 observations in the high self-efficacy level.

Assumptions. The assumption of the absence of multicollinearity was examined using variance inflation factors.

Variance inflation factors. Variance inflation factors (VIFs) were calculated to detect the presence of multicollinearity between predictors. Indications of increased effects of multicollinearity in the model would show high VIF. There is cause for concern if VIFs are greater than 5.00, whereas VIFs of 10.00 should be considered the maximum upper limit (Menard, 2009). All predictors in the regression model had VIFs less than 10.00. Table 8 presents the VIF for each predictor in the model.

Table 8

Variance Inflation Factors for Length, Hours, Education, Motivation, Age, NGSE, Team Size

Variable	VIF
Length	1.69
Hours	1.55
Education	1.09
Motivation	1.12
Age	1.45
NGSE	1.12
Team size	1.67

Results. The model was evaluated based on an alpha of 0.05. The results of the multinomial logistic regression model were significant, $\chi^2 (24) = 87.08, p < .001$, suggesting that length, hours, education, motivation, age, NGSE, and team size had a significant effect on the odds of observing at least one response category of income relative to Success Level 1. McFadden's R-squared was calculated to examine the model fit, where values greater than .2 are indicative of models with excellent fit (Louviere et al., 2000). The McFadden R-squared value calculated for this model was 0.42. Since the overall model was significant, each predictor variable was examined further.

Examining predictors. The following regression coefficients are described as follows:

- The coefficient for length in response category Success Level 2 of income was not significant, $B = 0.18, \chi^2 = 0.33, p = .563$, suggesting that length did not have a significant effect on the odds of observing the Success Level 2 category of income relative to Success Level 1.
- The regression coefficient for hours in response category Success Level 2 of income was significant, $B = 1.16, \chi^2 = 8.12, p = .004$, suggesting that a one-unit increase in hours would increase the odds of observing the Success Level 2 category of income relative to Success Level 1 by 218.52%.

- The regression coefficient for education in response category Success Level 2 of income was not significant, $B = 0.10$, $\chi^2 = 0.09$, $p = .760$, suggesting that education did not have a significant effect on the odds of observing the Success Level 2 category of income relative to Success Level 1.
- The regression coefficient for motivation2 in response category Success Level 2 of income was not significant, $B = 0.32$, $\chi^2 = 0.16$, $p = .687$, suggesting that motivation2 did not have a significant effect on the odds of observing the Success Level 2 category of income relative to Success Level 1.
- The regression coefficient for motivation3 in response category Success Level 2 of income was not significant, $B = -0.14$, $\chi^2 = 0.03$, $p = .873$, suggesting that motivation3 did not have a significant effect on the odds of observing the Success Level 2 category of income relative to Success Level 1.
- The regression coefficient for age in response category Success Level 2 of income was not significant, $B = 0.39$, $\chi^2 = 1.10$, $p = .295$, suggesting that age did not have a significant effect on the odds of observing the Success Level 2 category of income relative to Success Level 1.
- The regression coefficient for NGSE in response category Success Level 2 of income was not significant, $B = 0.45$, $\chi^2 = 0.84$, $p = .361$, suggesting that NGSE did not have a significant effect on the odds of observing the Success Level 2 category of income relative to Success Level 1.
- The regression coefficient for team size in response category Success Level 2 of income was significant, $B = 1.04$, $\chi^2 = 6.15$, $p = .013$, suggesting that a one-unit increase in team size would increase the odds of observing the Success Level 2 category of income relative to Success Level 1 by 184.01%.
- The regression coefficient for length in response category Success Level 3 of income was significant, $B = 1.56$, $\chi^2 = 4.76$, $p = .029$, suggesting that a one-unit increase in length would increase the odds of observing the Success Level 3 category of income relative to Success Level 1 by 374.78%.
- The regression coefficient for hours in response category Success Level 3 of income was significant, $B = 2.94$, $\chi^2 = 11.43$, $p < .001$, suggesting that a one-unit increase in hours would increase the odds of observing the Success Level 3 category of income relative to Success Level 1 by 1787.28%.
- The regression coefficient for education in response category Success Level 3 of income was not significant, $B = 0.50$, $\chi^2 = 0.52$, $p = .471$, suggesting that education did not have a significant effect on the odds of observing the Success Level 3 category of income relative to Success Level 1.

- The regression coefficient for motivation2 in response category Success Level 3 of income was significant, $B = 3.71$, $\chi^2 = 5.44$, $p = .020$, suggesting that a one-unit increase in motivation2 would increase the odds of observing the Success Level 3 category of income relative to Success Level 1 by 3995.79%.
- The regression coefficient for motivation3 in response category Success Level 3 of income was not significant, $B = 1.98$, $\chi^2 = 1.49$, $p = .223$, suggesting that motivation3 did not have a significant effect on the odds of observing the Success Level 3 category of income relative to Success Level 1.
- The regression coefficient for age in response category Success Level 3 of income was not significant, $B = -0.37$, $\chi^2 = 0.34$, $p = .562$, suggesting that age did not have a significant effect on the odds of observing the Success Level 3 category of income relative to Success Level 1.
- The regression coefficient for NGSE in response category Success Level 3 of income was not significant, $B = 0.49$, $\chi^2 = 0.32$, $p = .571$, suggesting that NGSE did not have a significant effect on the odds of observing the Success Level 3 category of income relative to Success Level 1.
- The regression coefficient for team size in response category Success Level 3 of income was significant, $B = 1.46$, $\chi^2 = 7.91$, $p = .005$, suggesting that a one-unit increase in team size would increase the odds of observing the Success Level 3 category of income relative to Success Level 1 by 332.56%.
- The regression coefficient for length in response category Success Level 4 of income was not significant, $B = 1.31$, $\chi^2 = 3.09$, $p = .079$, suggesting that length did not have a significant effect on the odds of observing the Success Level 4 category of income relative to Success Level 1.
- The regression coefficient for hours in response category Success Level 4 of income was significant, $B = 2.67$, $\chi^2 = 9.56$, $p = .002$, suggesting that a one-unit increase in hours would increase the odds of observing the Success Level 4 category of income relative to Success Level 1 by 1345.87%.
- The regression coefficient for education in response category Success Level 4 of income was not significant, $B = 0.07$, $\chi^2 = 0.01$, $p = .917$, suggesting that education did not have a significant effect on the odds of observing the Success Level 4 category of income relative to Success Level 1.
- The regression coefficient for motivation2 in response category Success Level 4 of income was not significant, $B = 2.57$, $\chi^2 = 2.61$, $p = .106$, suggesting that motivation2 did not have a significant effect on the odds of observing the Success Level 4 category of income relative to Success Level 1.

- The regression coefficient for motivation3 in response category Success Level 4 of income was not significant, $B = 1.48$, $\chi^2 = 0.86$, $p = .353$, suggesting that motivation3 did not have a significant effect on the odds of observing the Success Level 4 category of income relative to Success Level 1.
- The regression coefficient for age in response category Success Level 4 of income was not significant, $B = -0.22$, $\chi^2 = 0.11$, $p = .740$, suggesting that age did not have a significant effect on the odds of observing the Success Level 4 category of income relative to Success Level 1.
- The regression coefficient for NGSE in response category Success Level 4 of income was not significant, $B = 0.37$, $\chi^2 = 0.19$, $p = .666$, suggesting that NGSE did not have a significant effect on the odds of observing the Success Level 4 category of income relative to Success Level 1.
- The regression coefficient for team size in response category Success Level 4 of income was significant, $B = 1.65$, $\chi^2 = 9.02$, $p = .003$, suggesting that a one-unit increase in team size would increase the odds of observing the Success Level 4 category of income relative to Success Level 1 by 421.81%.

Table 9 presents the results of the multinomial logistic regression model.

Table 9

Multinomial Logistic Regression Table With Income Predicted by Length, Hours, Education, Motivation, Age, NGSE, and Team Size

Variable	Response	B	SE	χ^2	p	OR
Intercept	Success Level 2	-7.97	2.67	8.89	.003	0.00
Length	Success Level 2	0.18	0.30	0.33	.563	1.19
Hours	Success Level 2	1.16	0.41	8.12	.004*	3.19
Education	Success Level 2	0.10	0.34	0.09	.760	1.11
Motivation2	Success Level 2	0.32	0.80	0.16	.687	1.38
Motivation3	Success Level 2	-0.14	0.90	0.03	.873	0.87
Age	Success Level 2	0.39	0.38	1.10	.295	1.48
NGSE	Success Level 2	0.45	0.49	0.84	.361	1.56
Team size	Success Level 2	1.04	0.42	6.15	.013*	2.84
Intercept	Success Level 3	-22.30	6.17	13.06	< .001	0.00
Length	Success Level 3	1.56	0.71	4.76	.029*	4.75
Hours	Success Level 3	2.94	0.87	11.43	< .001*	18.87
Education	Success Level 3	0.50	0.69	0.52	.471	1.65

Table 9. *Multinomial Logistic Regression Table With Income Predicted by Length, Hours, Education, Motivation, Age, NGSE, and Team Size (continued)*

Variable	Response	B	SE	χ^2	p	OR
Motivation2	Success Level 3	3.71	1.59	5.44	.020*	40.96
Motivation 3	Success Level 3	1.98	1.62	1.49	.223	7.22
Age	Success Level 3	-0.37	0.63	0.34	.562	0.69
NGSE	Success Level 3	0.49	0.86	0.32	.571	1.63
Team size	Success Level 3	1.46	0.52	7.91	.005*	4.33
Intercept	Success Level 4	-19.58	5.92	10.92	< .001	0.00
Length	Success Level 4	1.31	0.75	3.09	.079	3.71
Hours	Success Level 4	2.67	0.86	9.56	.002*	14.46
Education	Success Level 4	0.07	0.70	0.01	.917	1.08
Motivation2	Success Level 4	2.57	1.59	2.61	.106	13.01
Motivation3	Success Level 4	1.48	1.60	0.86	.353	4.41
Age	Success Level 4	-0.22	0.66	0.11	.740	0.80
NGSE	Success Level 4	0.37	0.86	0.19	.666	1.45
Team size	Success Level 4	1.65	0.55	9.02	.003*	5.22

Note. $\chi^2(24) = 87.08, p < .001$, McFadden $R^2 = 0.42$; * $p < .05$

Summary of the Hypothesis Testing

The hypothesis testing suggested length, hours, education, motivation, age, NGSE, and team size had a significant effect on at least one level income relative to success. However, once all the predictor variables were assessed across all levels of success, they were not all found to be significant. It was determined that the length of time in business, hours worked per week, number of people on the team, and the hope for financial freedom significantly predicted entrepreneurial success in direct sales. Age, education, self-efficacy, and the desire to own their own business did not help to predict entrepreneurial success.

The hypothesis for the research question, “Can entrepreneurial success in network marketing be predicted?” and sub-questions were tested using the mlogit to determine whether there were correlations between the outcome variable (income) and the predictor variables

(length, motivation, hours, team size, self-efficacy, age, and education level). The questions, associated hypotheses, and results were:

Primary research question. Can entrepreneurial success in network marketing be predicted?

H_{0_0} : Entrepreneurial success in network marketing cannot be predicted.

H_{1_0} : Entrepreneurial success in network marketing can be predicted.

The results showed that the null hypothesis was rejected where the results of the multiple regression model were significant, $\chi^2(24) = 87.08, p < .001$, suggesting that length, hours, education, motivation, age, NGSE, and team size had a significant effect on the odds of observing at least one response category of income relative to success.

Sub-Question 1. Can entrepreneurial success in network marketing be predicted by the collective variables of how long they have been in business, their motivation for joining, hours worked per week, number of people on a team, self-efficacy, age, and education level?

H_{0_1} : Entrepreneurial success in network marketing scores on the collective variables of how long they have been in business, their motivation for joining, hours worked per week, number of people on a team, self-efficacy, age, and education level do not significantly contribute to the prediction of monthly income.

H_{1_1} : Entrepreneurs' scores on the collective variables of how long they have been in business, their motivation for joining, hours worked per week, number of people on a team, self-efficacy, age, and education level do significantly contribute to the prediction of monthly income.

The results showed that there was a failure to reject the null hypothesis for Sub-Question 1. All the predictor variables were assessed across all levels of success, they were not all found to be significant, and they did not all intercept.

Sub-Question 2. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by how long they have been in business?

H_{0_2} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by how long they have been in business.

H_{1_2} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by how long they have been in business.

The results showed that the null hypothesis was rejected for Sub-Question 2. Length was significantly related to predicting success at Success Level 3 of income, $B = 1.56$, $\chi^2 = 4.76$, $p = .029$.

Sub-Question 3. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by their motivation for joining?

H_{0_3} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by their motivation for joining.

H_{1_3} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by their motivation for joining.

The results showed that the null hypothesis was rejected for Sub-Question 3. Motivation 2 was significantly related to predicting success at Success Level 3 of income, $B = 3.71$, $\chi^2 = 5.44$, $p = .020$.

Sub-Question 4. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by hours worked per week?

H_{0_4} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by hours worked per week.

H_{1_4} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by hours worked per week.

The results showed that the null hypothesis was rejected for Sub-Question 4. Hours was significantly related to predicting success at Success Level 2 of income, $B = 1.16$, $\chi^2 = 8.12$,

$p = .004$; Success Level 3 of income, $B = 2.94$, $\chi^2 = 11.43$, $p < .001$; and Success Level 4 of income, $B = 2.67$, $\chi^2 = 9.56$, $p = .002$.

Sub-Question 5. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by the number of people on a team?

H_{0_5} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by number of people on a team.

H_{1_5} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by number of people on a team.

The results showed that the null hypothesis was rejected for Sub-Question 5. Team size was significantly related to predicting success at Success Level 2 of income, $B = 1.04$, $\chi^2 = 6.15$, $p = .013$; Success Level 3 of income, $B = 1.46$, $\chi^2 = 7.91$, $p = .005$; and Success Level 4 of income, $B = 1.65$, $\chi^2 = 9.02$, $p = .003$.

Sub-Question 6. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by self-efficacy?

H_{0_6} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by self-efficacy.

H_{1_6} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by self-efficacy.

The results showed that there was a failure to reject the null hypothesis for Sub-Question 6. NGSE was not significantly related to predicting success at any of the income levels.

Sub-Question 7. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by age?

H_{0_7} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by age.

H_{1_7} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by age.

The results showed that there was a failure to reject the null hypothesis for Sub-Question

7. Age was not significantly related to predicting success at any of the income levels.

Sub-Question 8. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by education level?

H_{0_8} : When all the other variables are held constant, entrepreneurial success in network marketing will not be predicted by education level.

H_{1_8} : When all the other variables are held constant, entrepreneurial success in network marketing will be predicted by education level.

The results showed that there was a failure to reject the null hypothesis for Sub-Question

8. Education was not significantly related to predicting success at any of the income levels.

Summary

The goal of this dissertation research was to determine if entrepreneurial success in network marketing could be predicted. It was determined that the length of time in business, hours worked per week, number of people on the team, and the hope for financial freedom significantly predicted entrepreneurial success in direct sales. Age, education, self-efficacy, and the desire to own their own business did not help to predict entrepreneurial success. The implications of these findings are discussed in Chapter 5.

CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

The purpose of this dissertation research was to determine if there was a statistically significant relationship between self-efficacy and other factors (predictor variables) and direct sales success as represented in the income levels (outcome variable) of NWMs. A goal of this researcher was to fill a gap in I/O psychology research and between research conducted in the United States versus international studies in which NWM distributors' entrepreneurial traits are examined (Ali, 2011; Nyberg & Wright, 2015). The dissertation project examined whether entrepreneurial success in NWM could be predicted, and results could be used to inform the field of I/O psychology and the direct sales industry regarding the significance of the association between self-efficacy, six other factors, and direct sales. Chapter 5 presents the study's purpose, research problem, and results of the study together for discussion and conclusion. The chapter also provides a summary of the study, discussion of the results, conclusions, limitations, implications, and recommendations for further research.

Summary of the Results

This quantitative, non-experimental, cross-sectional survey study used a mlogit regression model to measure the predictive relationship between age, education, motivation, length, self-efficacy, team size, hours, and four NWM income success levels (i.e., Level 1 = < \$1,000/month, Level 2 = \$1,000–\$4,199/month, Level 3 = \$4,200–\$8,499/month, and Level 4 = \$8,500 or more) (Leedy & Ormrod, 2010). The theoretical basis for this study, social cognitive theory, represented the perspective that the individual plays a crucial part in how

they behave and may influence outcomes based on their specific beliefs and actions (Bandura, 1977). In this study, social cognitive theory was applied to that of I/O psychology, in which entrepreneurialism and self-efficacy were examined in the unconventional workplace of NWM. The research literature indicates that researchers know entrepreneurship is considered a mindset (Baumgartner et al., 2013), and a place of work that links it to I/O psychology (Nyberg & Wright, 2015; Salas et al., 2017). Researchers have linked self-efficacy to the workplace (Bandura, 1991; Joo & Nam, 2019; Loeb et al., 2016; Ozyilmaz et al., 2018; Peterson, 2020), and entrepreneurship to self-efficacy (Gielnik et al., 2019; Mobaraki & Zare, 2012). However, researchers do not know whether direct sales are associated with entrepreneurship or self-efficacy, or if self-efficacy predicts entrepreneurial/direct sales success. There has not been a study encompassing all those variables; thus, there was a gap in the research. This study is significant since it helps to fill the gap in the I/O psychology field, sets the stage for further research, and can offer greater understanding of the success among highly paid NWM distributors. To evaluate the relationships between the predictor and outcome variables, the research question and sub-questions were as follows:

RQ. Can entrepreneurial success in network marketing be predicted?

SQ 1. Can entrepreneurial success in network marketing be predicted by the collective variables of how long they have been in business, their motivation for joining, hours worked per week, number of people on a team, self-efficacy, age, and education level?

SQ 2. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by how long they have been in business?

SQ 3. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by their motivation for joining?

SQ 4. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by hours worked per week?

- SQ 5. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by the number of people on a team?
- SQ 6. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by self-efficacy?
- SQ 7. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by age?
- SQ 8. When all the other variables are held constant, can entrepreneurial success in network marketing be predicted by education level?

Results

The quantitative research design addressed the research questions by analyzing 91 volunteers across 23 states and 25 different direct sales companies. The results of the mlogit regression model were significant, suggesting that length, hours, education, motivation, age, NGSE, and team size had a significant effect on at least one level income relative to success. Therefore, the answer to the primary research question was affirmed; entrepreneurial success in NWM can be predicted. However, once all the predictor variables were assessed across all levels of success, they were not all found to be significant. Therefore, the answer to sub-question 1 was that all the variables collectively do not predict entrepreneurial success.

The variables needed to be assessed individually in order to find which variables were significant in predicting success. For the rest of the sub-questions, if any of the variables were significant at any of the success levels, they were interpreted as predictive. Length in years of business and hope for financial freedom were shown to be predictive at Success Level 3 of income. The number of work hours per week and number of members on a team were shown to be predictive at Success Levels 2, 3, and 4 of income. NGSE scores (i.e., self-efficacy), age, and education were not shown to be significant or predictive at any of the success levels. Table 10

presents a visual of the significant results of the mlogit regression model in relation to the prediction of income levels.

Table 10

Prediction Results Table for Income

Predictor Variable	Level 1	Level 2	Level 3	Level 4
Number of years in direct sales			.029	
Number of work hours per week		.004	<.001	.002
Education level				
The hope for financial freedom			.020	
The desire to own a business and be your own boss				
Age				
Self-Efficacy				
Number of members on team		.013	.005	.003

Discussion of the Results

This dissertation researcher's goal was to determine if there was a statistically significant relationship between self-efficacy and other predictive factors and direct sales success. This study can help to fill the gap in the United States psychological research on the direct sales industry. The study is relevant because there are over 20 million direct sales entrepreneurs in the United States but there is scant research that informs the direct sales industry or the field of psychology (Ali, 2011; Direct Selling Association, 2016). The researcher used a quantitative, non-experimental design approach and data were collected via an online survey through a web software provider. The population sample comprised of NWM distributors who lived in the United States, were at least 18 years of age, and had been worked in NWM (i.e., collecting a

paycheck) for a period of at least 6 months. Data were then uploaded into Intellectus Statistics for analysis.

Considering the description of the sample of 91 NWM participants being 99% female, this study supports previous research that showed the majority of those in direct sales are women. Of the 91 participants, only one participant was a man, and there were 90 women participants (Direct Selling Association, 2016; Keep & Vander Nat, 2014; World Federation of Direct Selling Associations, 2019). The sample gave an adequate representation of direct sales across 23 different U.S. states with the highest frequencies in Colorado and California and 25 different NWM companies. It could be concluded that entrepreneurial success across direct sales companies might be similar; however, a study looking into differences across direct sales models would need to be conducted to make that assumption fully. The researcher noted that the majority of participants were either employed, worked full-time outside of NWM ($n = 28$), or were stay-at-home caretakers ($n = 24$). Because these two frequencies are at the extremes, whether home full-time and available to run a business or working outside the home full-time and able to run a business, data might be considered for another study to look into what one or both are doing to be successful.

Research Question

The hypotheses for the research question was, “Can entrepreneurial success in network marketing be predicted?” and sub-questions were tested using the mlogit to determine whether there were correlations between the outcome variable (income) and the predictor variables (length, motivation, hours, team size, self-efficacy, age, and education level). The results of the study, as well as the recorded frequencies of the sample, helped to offer insight on the direct

sales industry and success traits in NWM distributors. The results of this study showed that further research in the direct sales field is necessary to fill the gap in scholarly literature.

Entrepreneurial success in NWM can be predicted. The study was significant, and the predictors were significantly correlated with NWM entrepreneurial success. The correlations between variables can not only educate practitioners on the NWM workplace but they can also position NWM for more detailed research. This result opens the direct sales industry for further research on the consideration of the type of workplace NWM presents, and the type of mindset, motivation and entrepreneurial efforts necessary for success (Albaum & Peterson, 2011; Baumgartner et al., 2013; Mushipe, 2013). Entrepreneurial success in NWM could not be predicted by the collective variables and was therefore evaluated individually. This result correlated with the expected findings; the study showed there was not a dependency of all seven predictor variables interfacing in order for NWM success to occur.

Income. The highest frequency for income success levels was Level 1 and made up almost 50% of the sample (i.e., < \$1,000/month; $n = 44$). One conclusion that could be made from the data is that the majority of those in the direct sales population would fall into the Level 1 income success category. This supports previous direct sales research that showed 5.3 million out of 20 million NWM workers are working to build their business with 800,000 full-time and the rest part-time (Direct Selling Association, 2016). Of the 91 observations, 22 participants made \$4,200 to \$8,500 or more per month, presumably enough to live on and call NWM a career.

Length. The highest frequency observed for length of years in the NWM business was 5–10 years ($n = 23$); however, the 1–3 ($n = 21$) and 3–5 ($n = 20$) year categories were also closely correlated, indicating that being in business for a shorter period of time does not mean an

individual will not have higher success and that being in business for a longer amount of time does not necessarily mean that a person will be highly successful. It was expected that the length of time in business would predict success; however, the length was found to be a predictor of NWM entrepreneurial success for Level 3 only. Those who actively stay in NWM longer are more likely to increase their income level in direct sales.

Motivation. The highest frequency observed for motivation was “the hope for financial freedom” ($n = 33$) with “to get a discount on the products” ($n = 32$) as the next highest frequency. Although product discounts may be a motivator for joining NWM, it was not a predictor of success. The hope for financial freedom was the only motivation that showed predictability. As expected, this does indicate that NWM success can be predicted by their motivation for joining. The reasons for joining NWM could indicate what type of worker the entrepreneur will be and whether they will have the mindset, motivation and entrepreneurial efforts necessary for success (Albaum & Peterson, 2011; Baumgartner et al., 2013; Mushipe, 2013).

Hours. The highest frequency for hours worked per week was 11–20 ($n = 30$). As expected, there was a correlation between hours worked per week and NWM entrepreneurial success. This variable was significant at predicting an increase at all three higher success levels. Time management efforts correlated with job commitment and performance (Seong, 2016). The hours worked per week by NWM workers may indicate their level of commitment and contribution to their level of income.

Team size. The highest frequency observed for team size was 5–50 team members ($n = 54$); this accounted for almost 60% of participants. Notably, there were 11 participants who had over 500 team members; however, they did not all select the highest income level on the

survey. Regardless, team size was significant at predicting an increase at all three higher success levels. As expected, the number of people on a team did predict NWM entrepreneurial success. Growing larger teams in NWM allows for the NWM business owner to achieve goals, to be more accepted into higher ranks within their company, and to become a leader, as well as helping others succeed in NWM (Keep & Vander Nat, 2014; North et al., 2014).

Self-efficacy. The highest frequency observed for self-efficacy (NGSE scores) was 40 ($n = 16$); however, 46 participants scored in the high self-efficacy range, and 33 scored in the above-average range. This frequency showed that almost 80% of participants had a self-efficacy of above average to high, yet all were not in the higher income categories. For the purpose of this study, self-efficacy did not predict NWM entrepreneurial success at any income level. While this does not necessarily contribute to social cognitive theory by assessing predictability in NWM, it still adds to the theoretical basis by using it within a new discipline, that of NWM direct sales. Because self-efficacy was generally above average to high among the sample of NWM distributors, researchers might benefit from discovering why this phenomenon is present in those who did not select higher income levels. This study shows the need for further research in NWM, considering the type of workplace, the kind of mindset, and entrepreneurial efforts necessary for success (Albaum & Peterson, 2011; Baumgartner et al., 2013; Mushipe, 2013). Studying self-efficacy and other entrepreneurial traits of NWM representatives is only one step in understanding this type of workforce in the United States.

Age and education. While age and education were not shown as predictive variables, it is worth noting that the highest frequency for age ($n = 28$) fell between 36–45 and the highest frequency for education ($n = 35$) was a bachelor's degree; both support previous research in NWM statistics (Direct Selling Association, 2016). There were participants in each of the

original categories for age and education, showing that people of all ages and education levels take part in NWM. This study showed that age and education levels did not play a significant role in predicting whether an individual was successful in direct sales, making it appealing for anyone to join.

Conclusions Based on the Results

This section provides a discussion of the conclusions of the study and how they relate to the literature reviewed, the theoretical framework of self-efficacy and entrepreneurship, and the stakeholders who may benefit from the study's findings. Social cognitive theory guided this study via the constructs of self-efficacy and entrepreneurialism in direct sales. Bandura (1977) recognized the probability of an individual's behavior as being conditioned through the use of repeated feedback and actions and how those actions also impacted the environment. By adding the person into the mix, Bandura incorporated cognitive factors such as memory, anticipation, planning, and judging (Bandura, 1977). Individuals can use these cognitive skills to manipulate their environment and their behavior (Bandura, 2006). Bandura's concepts of self-efficacy and reciprocal determinism have been of great interest to many researchers because they have several implications, such as improved therapeutic and counseling methods (Bandura, 1997; Drummond & Jones, 2006; Graham & Weiner, 1996; Hines, 1997). Additionally, the study of self-efficacy has wide implications in business including qualities that might apply to workplace settings such as adult learning, job satisfaction, and self-actualization (Gelfand et al., 2017; Landy & Conte, 2010; Nyberg & Wright, 2015). According to Staples et al. (1998), employees who possess a high self-efficacy demonstrate more positive attitudes and greater performance at work than those of low perceived efficacy. Thus, it has been established that self-efficacy beliefs are highly correlated to behavioral changes and outcomes. Therefore, for the purpose of this project, self-

efficacy was considered as the best predictor of behavior in NWM and entrepreneurialism. The dissertation researcher considered social cognitive theory and self-efficacy as the theoretical framework for studying entrepreneurial success in NWM.

Comparison of the Findings With the Theoretical Framework and Previous Literature

The intent of this researcher was to examine the relationship between self-efficacy and other predictor traits and NWM entrepreneurial success. The results of this study indicate that self-efficacy did not play a significant role in the success of NWM entrepreneurship among the participants. Since there have not been psychological studies that involve these constructs and the direct sales population, it is difficult to compare the findings with previous research. The research could be compared to those dealing with self-efficacy in the workplace or in entrepreneurship; however, the workplace nature of direct sales is unique and therefore, it would be difficult to compare. However, a comparison may be drawn between these dissertation results and research that addresses maladaptive or negative self-efficacy and control theory, because this study showed a large number of NWM distributors with above-average to high self-efficacy yet were not successful in their income production (Bandura & Locke, 2003; Gielnik et al., 2019; Peterson, 2020). Likewise, not all NWM distributors who made a level four income scored high in self-efficacy. Considering previous research findings, these results could be presented with varying interpretations that can be linked back to social cognitive theory and reciprocal determinism. Perhaps the individual's personal experiences of success at work are positive but the NWM business uplines present difficulties related to trust, inflated outcome expectations, or create unrealistic beliefs in task performance capabilities (Ahearne et al.; Fallah et al., 2018; Panagopoulos & Ogilvie, 2015).

The results of this dissertation did support data points found on direct selling association websites from their own research concerning NWM distributors. The data supported previous direct sales association research that reported only 5.3 million out of 20 million NWM workers are attempting to build their businesses with 800,000 full-time and the rest part-time workers (Direct Selling Association, 2016). It was expected that there would be a correlation between hours worked per week and NWM entrepreneurial success. The results of this dissertation support the data research that NWM entrepreneurs who put more hours into their business each week performed better (Direct Selling Association, 2016; World Federation of Direct Selling Associations, 2019). The investigation also revealed, as expected, that the number of people on a team does predict NWM entrepreneurial success. Growing larger teams in NWM allows for the NWM business owners to achieve goals, be more accepted into higher ranks within their company, and become leaders, in addition to helping others succeed in NWM (North et al., 2014). Finally, considering the description of the sample of 91 NWM participants, this study supports previous research, which showed the majority of those in direct sales are women (Direct Selling Association, 2016; World Federation of Direct Selling Associations, 2019).

Interpretation of the Findings

The results of this study revealed a statistically significant positive relationship suggesting that length, hours, education, motivation, age, NGSE, and team size had a significant effect on at least one level income relative to success. The findings of the study indicated that success in direct sales could be predicted by workers joining for the motivation of financial freedom, staying in business longer, increasing the hours they work per week, and growing their business by adding more team members. However, data indicated no significant relationship between age, education, or self-efficacy, and entrepreneurial success in direct sales. The study's

findings point to the need for further research and benefits to the I/O psychology field, direct sales companies, and network marketing entrepreneurs.

The results of this study showed that the majority of those in the direct sales population are women and fall into the Level 1 income success category. Also, the reasons for joining NWM could indicate what type of worker the entrepreneur will be, whether they will have the mindset, motivation and entrepreneurial efforts necessary for success (Albaum & Peterson, 2011; Baumgartner et al., 2013). Those who actively stay in NWM longer, put in the hours necessary, and continue to build their teams, are more likely to increase their income level in direct sales (Albaum & Peterson, 2011; North et al., 2014). While this does not necessarily contribute to social cognitive theory by assessing predictability in NWM, it adds to the theoretical base by using it within a new discipline, that of NWM direct sales. Predicting success in NWM can be achieved; however, more research should be done to narrow down more specifically what those traits are that lead to success. There is still so much more to be investigated in this field. The current U.S. direct sales/NWM research has been informative in nature, but this dissertation study adds to that by providing more data in support of direct selling associations and the implications of psychological literature on direct sales.

Limitations

The most significant limitation of this study was the small sample size. Although the sample size was sufficient for the mlogit to run analysis, it presented results with warnings because of the small category sizes. Logistic regression models use maximum likelihood to estimate the parameters that generally require a minimum of 10 observations per parameter for the results to be considered accurate but present more robust analysis with higher observations per parameter (Intellectus Statistics, 2017; Hosmer et al., 2013; Jong et al., 2019). The mlogit

model will still run as long as there are at least three observations per level but with a small sample size warning. For example, the sample size was 91, but the hours' levels did not all have at least three observations (i.e., level 6 only had two observations for the 40 or more hours per week level). For that reason, it was best to omit or merge data to fit the parameters without damaging the other datasets (Schroeder, 1990; Senaviratna & Cooray, 2019). For example, level 6 of hours was merged with Level 5 to create a new Level 5 (i.e., 31 or more hours) and the size was increased to 6. Also, motivation levels with three or fewer observations were omitted, and only levels 1–3 were included because the motivation levels were more qualitative in nature and would cause damage to the data if merged.

The reason for the small sample size was the difficulty of data collection. It took several months to get volunteers to take the anonymous online survey. The snowball method did not work as expected; it was suspected that those who were asked to participate took the survey but did not pass it on to others. Perhaps NWM distributors are not accustomed to being surveyed within the direct sales industry, or perhaps they were afraid of getting in trouble with their NWM company, or perhaps they were afraid the outcome of the study would only add to the history of uninformed perceptions of the direct sales industry (Albaum & Peterson, 2011; Peterson & Wotruba, 1996). Whatever their reasoning, data collection was challenging. Instead of recruiting more participants and having a more robust study that could draw out recruiting even longer, the decision was made to analyze the data that were collected and view the sample size as a limitation, due to time and cost considerations. It may be easier for future researchers to design a qualitative study or one that does not require such a large sample size, at least until more research has been done, and there is less intimidation in taking part in this type of industry research.

The study's design presented some limitations. First, the study was performed using an anonymous online format; this approach made it difficult for the researcher to control any possible extraneous variables that would compromise the internal validity of the study (Myers, 2014). For example, the participant might have taken the survey using their phone and received a phone call during the survey. Another limitation was that of rater integrity; however, in order to increase rater integrity, the survey was anonymous; this limited risk to the participant and increased chances for rater integrity (Kaplan & Saccuzzo, 2009; Myers, 2014). With an anonymous survey of this type, there is no way to ensure whether all the participants genuinely qualified or answered the survey questions truthfully.

Implications for Practice

There are several practical implications this study provides to various stakeholders. First, professionals such as psychological and business coaches and practitioners may gain direct NWM industry perspectives regarding individual traits and thus be better equipped to train and coach those in NWM (Graham & Weiner, 1996; Hines, 1997). Organizational coaching requires a professional with qualifications that indicate industry knowledge and existing research, according to Pappas and Jerman (2015). Like coaches, other practitioners should also have NWM research to study, in order to fully understand the NWM individual and organizational culture and thus provide a professional service (Pappas & Jerman, 2015).

Direct sales companies may benefit from the study in two ways. The NWM culture is one that includes relationship building, face-to-face interaction, social media sales techniques, dynamic family changes, constant personal and professional development, knowledge of how to run and maintain a small to large business, leadership skills, and the constant need to be more extraverted (Direct Selling Association, 2016; Poon et al., 2017; Ragland et al., 2015). The

empirical outcome of the study and its predictor factor results may help direct sales organizations in their efforts to train and recruit representatives. This information might help direct sales companies to empower NWM distributors with knowledge of characteristics found in those who perform at a higher level of success. Also, the direct sales industry benefits from being more widely researched within the field of psychology as it lends credence to the U.S. perception of the NWM, a business sector that has not been taken seriously in America (Albaum & Peterson, 2011). Thus, with more scholarly research presented in psychology and business journals, NWM might be perceived as a legitimate workplace, and the American perspective might begin to change.

Finally, individuals who choose NWM as a career may benefit from understanding what variables are related to success in their field. They could use that information to adjust their recruiting, training, and coaching efforts. As more success factors are identified, the greater NWM representatives' business intelligence can become, and the chances for success will increase (Mesaros et al., 2016). This study showed that age, education, and self-efficacy did not play a significant role in predicting whether an individual is successful in direct sales; it appealing for anyone to join if they know that the roles are so fluid. The study also showed that increasing the hours people work and the size of their teams were substantial predictor factors for increasing their income levels. These factors can be used to help recruit and lead their teams toward higher levels of NWM entrepreneurial success.

Recommendations for Further Research

This study provided evidence that direct sales success could be predicted by putting in the hours, time, building bigger teams, and motivation. The results showed the likelihood of success in the industry and how NWM contributes to household income and psychological processes,

and therefore, the need for more research (Staples et al., 1998). A larger sample is recommended for replication of this study to increase maximum likelihood estimation, or researchers could reduce the number of predictors and predictor levels included in the model. Another suggestion would be to design a qualitative study or one that does not require such a large sample size, at least until more research has been done, to gain even more insight to the NWM phenomenon. A qualitative study would help researchers take a deeper look at reciprocal determinism in NWM representatives and how successful an individual might be based on their environmental feedback and support at home. Researchers could investigate what other factors might not only contribute to success but could also be predicted. Also, researchers might consider changing the way this particular population is recruited for future studies. The apprehension to be a participant and then to pass the survey information on to another potential participant was detrimental to recruitment efforts of this study, thereby, preventing this study from being even more significant.

Several observations were made that could lead to further research in the direct sales industry. Leadership could be assessed as teams grow, and the scope of the business requires more management. One observation was that there were 11 participants who claimed to have over 500 team members; however, they did not all select the highest income level on the survey. What does this say about the industry? How do the different recruitment and promotion models among NWM companies enhance or harm NWM entrepreneurial success? A study looking into differences across direct sales models would need to be conducted to understand why one distributor with the same amount of team members might do better in one NWM company than another. Also, when collecting data for this study, a few potential participants expressed their confusion regarding differences between the terms *direct sales* and *network marketing*, basing their knowledge on what their particular company taught them. It seems there needs to be a firm

description of first, what the overall industry refers to as *direct sales* and second, the classification of *network marketing* and how it might be different or the same as *multi-level marketing* or *relationship marketing*. Perhaps future research will help with those definitions. One observation about the sample was that many participants were either employed, worked full-time outside of NWM ($n = 28$) or were stay-at-home caretakers ($n = 24$). Because these two frequencies are at the extremes, (i.e., home full-time and available to run a business versus employed full-time and able to run a business) another recommendation for a study would be to investigate what one or both are doing to be successful. Researchers also might compare how direct sales characteristics differ between U.S. and international markets that might enhance an understanding of why more research has been done outside the United States.

Self-efficacy was not a predictive factor in this study, although the majority of participants fell into the above-average to high self-efficacy ranges. Researchers could study why those who do not necessarily make higher income in NWM showed higher self-efficacy, nonetheless. Perhaps the study by Gielnik et al. (2019) that involved self-efficacy and control theory should be re-examined with those in NWM to observe whether an imbalance occurred between high self-efficacy and self-mastery that hindered achievement among distributors. If direct sales companies are skilled at providing organizational trust and perceived respect, they may make the distributor feel valued and therefore will stay with the company longer because they believe they will one day become successful. Another perspective could be that those with higher self-efficacy had a more favorable and positive living environment whereby they received more support for joining NWM. Researchers could take a closer look at the psychology of those in NWM, such as personality types or emotional intelligence. I/O psychologists could consider studying other workplace traits such as leadership styles, influence, and motivation, or team

dynamics among NWM distributors. The field of psychology, overall, could benefit from further research focused on the direct sales industry and these constructs.

Conclusion

The purpose of this research was to determine if entrepreneurial success in direct sales could be predicted by self-efficacy and other predictive factors. The study's findings showed that success in direct sales could be predicted for workers who joined for the motivation of financial freedom, stayed in business longer, increased the hours they worked per week, and grew their business by adding more team members. However, data indicated there was no significant relationship between age, education, or self-efficacy, and entrepreneurial success in direct sales. The study's findings may be beneficial to I/O psychologists and workplace coaches because they support those in the industry and direct sales companies in their effort to train their distributors. These professionals can help the NWM entrepreneurs in their efforts to recruit, lead, and grow their businesses. Ultimately, the results of this study can help fill the gap in U.S. psychological research, provide direction for future research to be conducted on the direct sales industry, and inform the field of I/O psychology regarding this non-traditional, consumer-to-consumer sales and marketing industry.

REFERENCES

- Abeyssekera, N., & Jayakody, J. A. S. K. (2011). Relationship marketing perspective on salespersons' transformational leadership behavior effect. *Contemporary Management Research*, 7(2), 143-156. <https://doi.org/10.7903/cmr.3602>
- Ahearne, M., Mathieu, J., & Rapp, A. (2005). To empower or not to empower your sales force? An empirical examination of the influence of leadership empowerment behavior on customer satisfaction and performance. *Journal of Applied Psychology*, 90(5), 945. <https://doi.org/10.1037/0021-9010.90.5.945>
- Ahlin, B., Drnovšek, M., & Hisrich, R. (2014). Entrepreneurs' creativity and firm innovation: The moderating role of entrepreneurial self-efficacy. *Small Business Economics*, 43(1), 101-117. <https://doi.org/10.1007/s11187-013-9531-7>
- Albaum, G., & Peterson, R. A. (2011). Multilevel (network) marketing: An objective view. *Marketing Review*, 11(4), 347-361. <https://doi.org/10.1362/146934711X13210328715902>
- Ali, S. (2011). Motivations of home-based business operators, their support needs and awareness about existing support programs. *International Journal of Business Research*, 11(2), 175-188. <http://vuir.vu.edu.au/9320/>
- American Psychological Association. (2010). *Ethical principles of psychologists and code of conduct*. American Psychological Association. <http://www.apa.org/ethics/code/index.aspx>
- Babu, R., & Anand, P. (2015). Legal aspects of multilevel marketing in India: negotiating through murky waters. *Decision*, 42(4), 359-378. <https://dx.doi.org/10.1007/s40622-015-0105-1>
- Bandura, A. (1977). Self-efficacy. Toward a unifying theory of behavioral change. *Psychological Review*, 84(4), 191-215. <http://dx.doi.org/10.1037/0033-295X.84.2.191>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44(9), 1175-1184. <http://dx.doi.org/10.1037/0003-066X.44.9.1175>
- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes*, 50(2), 248-287. [http://dx.doi.org/10.1016/0749-5978\(91\)90022-L](http://dx.doi.org/10.1016/0749-5978(91)90022-L)
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman.

- Bandura, A. (2000). Exercise of human agency through collective efficacy. *Current Directions in Psychological Science*, 9(3), 75-78. <https://doi.org/10.1111/1467-8721.00064>
- Bandura, A. (2002). Social cognitive theory in cultural context. *Journal of Applied Psychology: An International Review*, 51(2), 269-290. <https://doi.org/10.1111/1464-0597.00092>
- Bandura, A. (2006). Toward a psychology of human agency. *Psychological Science*, 1(2), 164-180. <http://dx.doi.org/10.1111/j.1745-6916.2006.00011.x>
- Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, 38(1), 9-44. <https://doi.org/10.1177/0149206311410606>
- Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology*, 88(1), 87-99. <https://doi.org/10.1037/0021-9010.88.1.87>
- Baumgartner, D., Pütz, M., & Seidl, I. (2013). What kind of entrepreneurship drives regional development in European non-core regions? A literature review on empirical entrepreneurship research. *European Planning Studies*, 21(8), 1095-1127. <https://doi.org/10.1080/09654313.2012.722937>
- Beeler, L. L., Chaker, N. N., Gala, P., & Zablah, A. R. (2020). The divergent effects of organizational identification on salesperson and customer outcomes in a friend-selling context. *Journal of Personal Selling & Sales Management*, 40(2), 95-113. <http://dx.doi.org/10.1080/08853134.2019.1659741>
- Bennett, J. A. (2000). Mediator and moderator variables in nursing research: Conceptual and statistical differences. *Research in Nursing & Health*, 23(5), 415-420. [https://doi.org/10.1002/1098-240x\(200010\)23:5%3c415::aid-nur8%3e3.0.co;2-h](https://doi.org/10.1002/1098-240x(200010)23:5%3c415::aid-nur8%3e3.0.co;2-h)
- Betz, N. E., & Klein, K. L. (1996). Relationships among measures of career self-efficacy, generalized self-efficacy, and self-esteem. *Journal of Career Assessment*, 4(3), 285-298. <https://doi.org/10.1177/106907279600400304>
- Brandt, M. J., Wetherell, G., & Henry, P. J. (2015). Changes in income predict change in social trust: A longitudinal analysis. *Political Psychology*, 36(6), 761-768. <https://doi.org/10.1111/pops.12228>
- Cervone, D. (1997). Social-cognitive mechanisms and personality coherence: Self-knowledge, situational beliefs, and cross-situational coherence in perceived self-efficacy. *Psychological Science*, 8(1), 43-50. <https://doi.org/10.1111/j.1467-9280.1997.tb00542.x>
- Chandra, Y. (2018). Mapping the evolution of entrepreneurship as a field of research (1990-2013): A scientometric analysis. *PLoS ONE*, 13(1), 1-24. <https://doi.org/10.1371/journal.pone.0190228>

- Chen, G., Gully, S. M., & Eden, D. (2001). New general self-efficacy scale. *Psychtests*, <https://doi.org/10.1037/t08800-000>
- Chirkov, V. I., Ryan, R. M., Kim, Y., & Kaplan, U. (2003). Differentiating autonomy from individualism and independence: A self-determination theory perspective on internalization of cultural orientations and well-being. *Journal of Personality and Social Psychology*, *84*(1), 97-110. <https://doi.org/10.1037/0022-3514.84.1.97>
- Choi, N. G., DiNitto, D. M., & Kim, J. (2014). Discrepancy between chronological age and felt age: Age group difference in objective and subjective health as correlates. *Journal of Aging and Health*, *26*(3), 458-473. <https://doi.org/10.1177/0898264314523449>
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11*(4), 319-338. https://doi.org/10.1207/S15327965PLI1104_01
- Deci, E. L., & Ryan, R. M. (2008). Facilitating optimal motivation and psychological well-being across life’s domains. *Canadian Psychology*, *49*(1), 14-23. <https://doi.org/10.1037/0708-559>
- Deci, E. L., Ryan, R. M., Gagné, M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001). Need satisfaction, motivation, and well-being in the work organizations of a former Eastern Bloc country. *Personality and Social Psychology Bulletin*, *27*(8), 930-942. <https://doi.org/10.1177/0146167201278002>
- Deci, E., & Vansteenkiste, M. (2004). Self-determination theory and basic need satisfaction: Understanding human development in positive psychology. *Ricerche di Psicologia* *27*(1), 17–34. https://www.researchgate.net/publication/232549169_Self-determination_theory_and_basic_need_satisfaction_Understanding_human_development_in_positive_psychology
- Demo, D., & Acock, A. (1988). The impact of divorce on children. *Journal of Marriage and the Family*, *50*(3), 619-648. <https://doi.org/10.2307/352634>
- Dhiman, S. (2011). Personal mastery and authentic leadership. *Organization Development Journal*, *29*(2), 69-83. https://www.researchgate.net/publication/285789283_Personal_mastery_and_authentic_leadership
- Di Domenico, M., Daniel, E., & Nunan, D. (2014). “Mental mobility” in the digital age: entrepreneurs and the online home-based business. *New Technology, Work & Employment*, *29*(3), 266-281. <https://doi.org/10.1111/ntwe.12034>
- Diefendorff, J. M., & Mehta, K. (2007). The relations of motivational traits with workplace deviance. *Journal of Applied Psychology*, *92*(4), 967-977. <https://doi.org/10.1037/0021-9010.92.4.967>

- Direct Selling Association. (2016). www.dsa.org
- Droney, D. (2016). Networking health: multi-level marketing of health products in Ghana. *Anthropology & Medicine*, 23(1), 1–13. <http://dx.doi.org/10.1080/13648470.2015.1057104>
- Drummond, R., & Jones, K. D. (2006). *Assessment procedures for counselors and helping professionals*. Pearson Prentice Hall.
- El-Habil, A. M. (2012). An application on multinomial logistic regression model. *Pakistan Journal of Statistics & Operation Research*, 8(2), 271-291. <https://doi.org/10.18187/pjsor.v8i2.234>
- Fallah, H., Jafariyan, H., & Savabieh, S. (2018). Investigation of market orientation and self-efficacy effects on sale force performance: Mediator role of sales force creativity and innovation implementation. *Journal of Relationship Marketing*, 17(3), 188–203. <http://dx.doi.org/10.1080/15332667.2018.1440147>
- Federal Trade Commission. (2018, January). FTC business guidance concerning multilevel marketing. <https://www.ftc.gov/tips-advice/business-center/guidance/business-guidance-concerning-multi-level-marketing>
- Feist, J., & Feist, G. J. (2006). *Theories of personality* (6th ed.). McGraw-Hill.
- Ferrell, L., Gonzalez-Padron, T. L., & Ferrell, O. C. (2010). An assessment of the use of technology in the direct selling industry. *Journal of Personal Selling & Sales Management*, 30(2), 157–165. <http://dx.doi.org/10.2753/PSS0885-3134300206>
- Franco, W., & Gonzalez-Perez, M. A. (2016). International expansion opportunities for multi-level marketing via personal networks: An ethnographic study from Colombia. *International Journal of Business & Society*, 17(1), 28–46. <http://dx.doi.org/10.33736/ijbs.509.2016>
- Gardner, D. G., & Pierce, J. L. (1998). Self-esteem and self-efficacy within the organizational context. *Group and Organization Management*, 23(1), 48-70. <http://doi.org/10.1177/1059601198231004>
- Gelfand, M. J., Aycan, Z., Erez, M., & Leung, K. (2017). Cross-cultural industrial organizational psychology and organizational behavior: A hundred-year journey. *Journal of Applied Psychology*, 102(3), 514–529. <https://doi.org/10.1037/apl0000186>
- Gibson, J. L., Payne, S. C., Morgan, W. B., & Allen, J. A. (2018). The Society for Industrial and Organizational Psychology's guidelines for education and training: An executive summary of the 2016/2017 revision. *American Psychologist*, 73(5), 678–682. <https://doi.org/10.1037/amp0000266>

- Gielnik, M. M., Bledow, R., & Stark, M. S. (2019). A dynamic account of self-efficacy in entrepreneurship. *Journal of Applied Psychology, 105*(5), 487-505. <https://doi.org/10.1037/apl0000451>
- Gist, M. E., & Mitchell, T. R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review, 17*(2), 183-211. <http://doi.org/10.2307/258770>
- Graham, S., & Weiner, B. (1996). Theories and principles of motivation. In D. C. Berliner & R. C. Calfee (Eds.). *Handbook of educational psychology* (pp. 63-84). Simon & Schuster Macmillan.
- Groß, C., & Vriens, D. (2019). The role of the distributor network in the persistence of legal and ethical problems of multi-level marketing companies. *Journal of Business Ethics, 156*(2), 333-355. <http://doi.org/10.1007/s10551-017-3556-9>
- Hanoteau, J., & Rosa, J. (2019). Information technologies and entrepreneurship. *Managerial & Decision Economics, 40*(2), 200–212. <https://doi.org/10.1002/mde.2996>
- Harrison, D. E., & Hair, J. F. (2017). The use of technology in direct-selling marketing channels: Digital avenues for dynamic growth. *Journal of Marketing Channels, 24*(1/2), 39–50. <http://dx.doi.org/10.1080/1046669X.2017.1346979>
- Hébert, R. F., & Link, A. (1982). *The entrepreneur*. Praeger.
- Hines, A. (1997). Divorce-related transitions, adolescent development and the role of the parent-child relationship: A review of the literature. *Journal of Marriage and the Family, 59*(2), 375-388. <http://doi.org/10.2307/353477>
- Hosmer, D. W., Lemeshow, S., & Sturdivant, R. X. (2013). *Applied logistic regression* (3rd ed.). Wiley.
- Intellectus Statistics. (2017). *Intellectus Statistics* [Online computer software]. <http://analyze.intellectusstatistics.com/>
- Intellectus Statistics. (2020). *Intellectus Statistics* [Online computer software]. <https://analyze.intellectusstatistics.com/>
- Jong, V. M. T., Eijkemans, M. J. C., Calster, B., Timmerman, D., Moons, K. G. M., Steyerberg, E. W., & Smeden, M. (2019). Sample size considerations and predictive performance of multinomial logistic prediction models. *Statistics in Medicine, 38*(9), 1601–1619. <http://doi.org/10.1002/sim.8063>
- Joo, B., & Nam, K. (2019). The effects of transformational leadership, learning goal orientation, and psychological empowerment on career satisfaction. *New Horizons in Adult Education & Human Resource Development, 31*(3), 47–64. <http://dx.doi.org/10.1002/nha3.20247>

- Kaplan, R. M., & Saccuzzo, D. P. (2009). *Psychological testing: Principles, applications, and issues* (7th ed.). Cengage.
- Keep, W. W., & Vander Nat, P. J. (2014). Multilevel marketing and pyramid schemes in the united states. *Journal of Historical Research in Marketing*, 6(2), 188-210. <http://doi.org/10.1108/JHRM-01-2014-0002>
- Kirkpatrick, S. A., Locke, E. A., & Latham, G. P. (1991). *Using goal setting to improve performance*. Organizational Design & Development.
- Landy, F. J., & Conte, J. M. (2010). *Work in the 21st century: An introduction to industrial and organizational psychology* (3rd ed.). Wiley-Blackwell.
- Leedy, P. D., & Ormrod, J. E. (2010). *Practical research: Planning and design* (9th ed.). Pearson.
- Loeb, C., Stempel, C., & Isaksson, K. (2016). Social and emotional self-efficacy at work. *Scandinavian Journal of Psychology*, 57(2), 152-161. <http://doi.org/10.1111/sjop.12274>
- Louviere, J. J., Hensher, D. A., & Swait, J. D. (2000). *Stated choice methods: Analysis and Applications*. Cambridge University.
- Maurer, T. J. (2001). Career-relevant learning and development, worker age, and beliefs about self-efficacy for development. *Journal of Management*, 27(2), 123–140. <https://doi.org/10.1177/014920630102700201>
- Menard, S. (2009). *Logistic regression: From introductory to advanced concepts and applications*. SAGE.
- Mesaros, P., Carnicky, S., Mandicak, T., Habinakova, M., Mackova, D., & Spisakova, M. (2016). Model of key success factors for business intelligence implementation. *Journal of Systems Integration (1804-2724)*, 7(3), 3-15. <http://doi.org/10.20470/jsi.v7i3.264>.
- Mobaraki, M., & Zare, Y. (2012). Designing pattern of entrepreneurial self-efficacy on entrepreneurial intention. *Information Management & Business Review*, 4(8), 428-433. <http://doi.org/10.22610/imbr.v4i8.997>
- Msweli, P., & Sargeant, A. (2001). Modelling distributor retention in network marketing organisations. *Marketing Intelligence & Planning*, 19(7), 507-514. <http://doi.org/10.1108/EUM00000000006215>
- Msweli-Mbanga, P., & Lin, C. (2003). Redefining performance of direct sales people. *South African Journal of Business Management*, 34(3), 29–40. <https://doi.org/10.4102/sajbm.v34i3.685>

- Multilevel Marketing. (2007). *Encyclopedia of small business*. <https://www.encyclopedia.com/entrepreneurs/encyclopedias-almanacs-transcripts-and-maps/multilevel-marketing>
- Muncy, J. A. (2004). Ethical issues in multilevel marketing: Is it legitimate business or just another pyramid scheme? *Marketing Education Review*, 14(3), 47–53. <https://doi.org/10.1080/10528008.2004.11488877>
- Mushipe, Z. (2013). Entrepreneurship education—An alternative route to alleviating unemployment and the influence of gender: An analysis of university level students' entrepreneurial business ideas. *International Journal of Business Administration*, 4(2), 1-7. <http://doi.org/10.5430/ijba.v4n2p1>
- Myers, T. D. (2014). Achieving external validity in home advantage research: Generalizing crowd noise effects. *Frontiers in Psychology*, 5, 532. <http://doi.org/10.3389/fpsyg.2014.00532>
- Ng, T. W. H., & Lucianetti, L. (2016). Within-individual increases in innovative behavior and creative, persuasion, and change self-efficacy over time: A social-cognitive theory perspective. *Journal of Applied Psychology*, 101(1), 14–34. <https://doi.org/10.1037/apl0000029>
- North, R., Holahan, C., Carlson, C., & Pahl, S. (2014). From failure to flourishing: The roles of acceptance and goal reengagement. *Journal of Adult Development*, 21(4), 239-250. <http://doi.org/10.1007/s10804-014-9195-9>
- Nyberg, A., & Wright, P. (2015). 50 years of human capital research: assessing what we know, exploring where we go. *Academy of Management Perspectives*, 29(3), 287-295. <http://doi.org/10.5465/amp.2014.0113>
- Ozyilmaz, A., Erdogan, B., & Karaeminogullari, A. (2018). Trust in organization as a moderator of the relationship between self-efficacy and workplace outcomes: A social cognitive theory-based examination. *Journal of Occupational & Organizational Psychology*, 91(1), 181–204. <http://dx.doi.org/10.1111/joop.12189>
- Pajares, F. (1996). Self-efficacy beliefs and mathematical problem-solving of gifted students. *Contemporary Educational Psychology*, 21(4), 325-344. <http://doi.org/10.1006/ceps.1996.0025>
- Panagopoulos, N. G., & Ogilvie, J. (2015). Can salespeople lead themselves? Thought self-leadership strategies and their influence on sales performance. *Industrial Marketing Management*, 47, 190-203. <http://doi.org/10.1016/j.indmarman.2015.02.043>
- Pappas, J. P., & Jerman, J. (2015). The future of coaching among adult populations. *New Directions for Adult and Continuing Education*, 2015(148), 79-91. <http://doi.org/10.1002/ace.20154>

- Peterson, R. A. (2020). Self-efficacy and personal selling: review and examination with an emphasis on sales performance. *Journal of Personal Selling & Sales Management*, 40(1), 57–71. <http://dx.doi.org/10.1080/08853134.2019.1654390>
- Peterson, R., & Albaum, G. (2007). On the ethicality of internal consumption in multilevel marketing. *Journal of Personal Selling and Sales Management*, 27(4), 317-323. <http://dx.doi.org/10.2753/PSS0885-3134270403>
- Peterson, R. A., & Wotruba, T. R. (1996). What is direct selling? Definition, perspectives, and research agenda. *The Journal of Personal Selling & Sales Management*, 16(4), 1-16. <http://doi.org/10.1080/08853134.1996.10754070>
- Poon, P., Albaum, G., & Yin, C. (2017). Exploring risks, advantages and interpersonal trust in buyer-salesperson relationships in direct selling in a non-Western country. *International Journal of Retail & Distribution Management*, 45(3), 328-342. <http://doi.org/10.1108/IJRDM-08-2016-0124>
- Powers, W. T. (1973). *Behavior: The control of perception*. Hawthorne.
- Racolța-Paina, N. D., & Luncașu, A. (2014). The sales force of multi-level marketing companies in the context of the marketing communications mix. case study: Avon cosmetics Romania. *Proceedings of the International Conference Marketing—from Information to Decision*, 7, 185–200. <https://www.cceol.com/search/article-detail?id=48799>
- Ragland, C. B., Brouthers, L. E., & Widmier, S. M. (2015). Institutional theory and international market selection for direct selling. *Marketing Intelligence & Planning*, 33(4), 538-555. <http://doi.org/10.1108/MIP-02-2014-0033>
- Roberts, M., & Ilardi, S. S. (2008). *Handbook of research methods in clinical psychology*. Wiley.
- Saeid, N., & Eslaminejad, T. (2017). Relationship between student's self-directed-learning readiness and academic self-efficacy and achievement motivation in students. *International Education Studies [serial online]*. 10(1), 225-232. <http://doi.org/10.5539/ies.v10n1p225>
- Salas, E., Kozlowski, S. W. J., & Chen, G. (2017). A century of progress in industrial and organizational psychology: Discoveries and the next century. *Journal of Applied Psychology*, 102(3), 589–598. <https://doi.org/10.1037/apl0000206>
- Salimath, M. S., & Cullen, J. B. (2010). Formal and informal institutional effects on entrepreneurship: A synthesis of nation-level research. *International Journal of Organizational Analysis*, 18(3), 358-385. <http://doi.org/10.1108/19348831011062175>

- Schroeder, M. A. (1990). Diagnosing and dealing with multicollinearity. *Western Journal of Nursing Research*, 12(2), 175. <http://dx.doi.org/10.1177/019394599001200204>
- Schunk, D. H., & Pajares, F. (2002). The development of academic self-efficacy. In A. Wigfield & J. Eccles (Eds.), *Development of achievement motivation* (pp. 16-31). Academic Press.
- Senaviratna, N. A., & Cooray, T. M. (2019). Diagnosing multicollinearity of logistic regression model. *Asian Journal of Probability and Statistics*, 5(2), 1-9. <http://doi.org/10.9734/ajpas/2019/v5i230132>
- Seong, J. Y. (2016). Person–organization fit, family-supportive organization perceptions, and self-efficacy affect work–life balance. *Social Behavior & Personality: An International Journal*, 44(6), 911-922. <http://doi.org/10.2224/sbp.2016.44.6.911>
- Sethi, R., Chhimpa, A., & Khinvasara, S. (2015). Multilevel mischief—a myth or reality. *International Journal of Recent Research Aspects*, 2(4), 60–64. <https://www.academia.edu/28189393>
- Shelton, S. H. (1990). Developing the construct of general self-efficacy. *Psychological Reports*, 66, 987-994. <https://doi.org/10.1177/003329419006600301>
- Sherer, M., & Adams, C. H. (1983). Construct validation of the self-efficacy scale. *Psychological Reports*, 53(3), 899-902. <https://doi.org/10.2466/pr0.1983.53.3.899>
- Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The self-efficacy scale: Construction and validation. *Psychological Reports*, 51, 663–671. <https://doi.org/10.2466/pr0.1982.51.2.663>
- Society for Industrial and Organizational Psychology. (2020). <https://www.siop.org/>
- Sparks, J. R., & Schenk, J. A. (2006). Socialization communication, organizational citizenship behaviors, and sales in a multilevel marketing organization. *Journal of Personal Selling & Sales Management*, 26(2), 161–180. <https://doi.org/10.2753/PSS0885-3134260204>
- Stagner, R. (1982). Past and future of industrial/organizational psychology. *Professional Psychology*, 13(6), 892-903. <https://doi.org/10.1037/0735-7028.13.6.892>
- Staples, D. S., Hulland, J. S., & Higgins, C. A. (1998). A self-efficacy theory explanation for the management of remote workers in virtual organizations. *Journal of Computer-Mediated Communication* 3(4). <https://doi.org/10.1111/j.1083-6101.1998.tb00085.x>
- Stevens, J. P. (2009). *Applied multivariate statistics for the social sciences* (5th ed.). Routledge Academic.
- Survey Monkey. (n.d.). *Online survey development cloud-based software*. <https://www.surveymonkey.com>

- Uebel, T. (2013). "Logical positivism"- "Logical empiricism": What's in a name? *Perspectives on Science*, 21(1), 58-99. https://doi.org/10.1162/posc_a_00086
- U.S. Department of Health and Human Services, National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. (1979). *The Belmont report: Ethical principles and guidelines for the protection of human subjects of research (45 CFR 46)*. <http://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/>
- Urban, B. (2010). Cognitions and motivations for new venture creation decisions: Linking expert scripts to self-efficacy, a South African study. *International Journal of Human Resource Management*, 21(9), 1512-1530. <https://doi.org/10.1080/09585192.2010.488457>
- Vansteenkiste, M., Neyrinck, B., Niemiec, C. P., Soenens, B., De Witte, H., & Van Den Broeck, A. (2007). On the relations among work value orientations, psychological need satisfaction and job outcomes: A self-determination theory approach. *Journal of Occupational & Organizational Psychology*, 80(2), 251-277. <https://doi.org/10.1348/096317906X111024>
- Warner, R. M. (2013). *Applied statistics: From bivariate through multivariate techniques* (2nd ed.). SAGE.
- Waterman, A. S. (2013). The humanistic psychology-positive psychology divide: Contrasts in philosophical foundations. *American Psychologist*, 68(3), 124-133. <https://doi.org/10.1037/a0032168>
- Welter, F. (2017). Everyday entrepreneurship. In S. Nielsen, K. Klyver, M. Evald, & T. Bagrt (Eds.), *Entrepreneurship theory and practice* (pp. 1042-2587). Elgar.
- Westfall, P. H., & Henning, K. S. S. (2013). *Texts in statistical science: Understanding advanced statistical methods*. Taylor & Francis.
- Wilson, A. (1999). The empire of direct sales and the making of Thai entrepreneurs. *Critique of Anthropology*, 19(4), 401-422. <https://doi.org/10.1177/0308275X9901900406>
- World Federation of Direct Selling Associations. (2008). *WFDSA code of ethics*. <http://www.wfdsa.org/files/world-codes/code-book.pdf>.
- World Federation of Direct Selling Associations. (2019). *World federation statistical database*. <http://wfdsa.org/global-statistics/>
- Zimmerman, B. J., & Bandura, A. (1994). Impact of self-regulatory influences on writing course attainment. *American Educational Research Journal*, 31(4), 845-862. <https://doi.org/10.3102/00028312031004845>

Zimmerman, B. J., Bandura, A., & Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self- efficacy beliefs and personal goal-setting. *American Educational Research Journal*, 29(3), 663-676. <https://doi.org/10.3102/00028312029003663>