

# ANTECEDENT FACTORS OF WOMEN ENTREPRENEURS' SUCCESS: EMPOWERING WOMEN AND GENDER EQUALITY

**Maheran Zakaria, UiTM Machang**  
**Mohd Arpi Arifin, Kelantan State Secretary Office**  
**Muhammad Saiful Anuar Yusoff, UiTM Machang**  
**Eka Nurmala Sari, UMSU Sumatera Utara**  
**Nor Balkish Zakaria, Accounting Research Institute, UiTM**

## ABSTRACT

*Women have been discriminated against in all spheres of lives including education, employment, political representation and economy. Indeed, they are persistently overshadowed by men. Turning women into successful entrepreneurs is amongst the strategies in empowering women and reducing gender inequality. In realizing the strategies, abundances of programs on women entrepreneurship have been adopted by many countries of emerging economies including Malaysia. Despite the vast amount of public monies spent by the government on those programs, a dearth of them has succeeded. Hence, what makes them successful needs to be investigated. Emulating Social Cognitive Theory and prior literature, the objective of this study is to predict the antecedent factors of women entrepreneurs' success concerning self-efficacy, technology usage, virtue ethics and social support. A total of 500 questionnaires were randomly distributed to women entrepreneurs of a Malaysian microcredit provider. Approximately 384 borrowers responded, but only 347 were usable for analysis. Data were analyzed using Smart PLS version 3. Results indicated that all the predicted factors were significantly related to women entrepreneurs' success. Self-efficacy obtained the highest magnitude of effect, followed by technology usage, virtue ethics and social support. The results provide competent insight to policymakers, microcredit providers, academia and the like in a quest of predicting the factors of women entrepreneurs' success. Hence, incorporating these factors in formulating national policies and strategies is hoped to realize the aspirations of the sustainable development goal of the united nation to empower women and reduce gender inequality by 2030.*

**Keywords:** Empowerment, Entrepreneur, Gender, Inequality, Success, Women

## INTRODUCTION

For centuries women have often been placed in the back seat as the privileges are always in the men's favour. This tradition, however, has slowly evolved. The emergent role of women in unlocking the stagnation of economic growth has gradually been recognized (Meyer, 2018). Women as agents for change are undeniable, though many have yet realized their full potential (Xavier et al., 2012). Hence, empowering women and gender equality by 2030 is one of the main agendas proposed by the United Nation Sustainable Development Goals for strengthening the economy and social development of all nations.

Women are capable to succeed in various spheres of life that include politics, employment, economy and entrepreneurship (Solesvik et al., 2018). Entrepreneurship specifically, has been recognized as the catalyst for economic growth and development of a person. It is also amongst the

effective mechanisms to alleviate poverty. Unleashing the entrepreneurial talent in women is one of the key solutions to make them successful (Meyer, 2018), and thus become on par or even better than men. Being socially and financially successful is a way of women empowerment and thus reduces existing gender inequality and discrimination.

Indeed, gender inequality is a global issue. The United Nations Development Program has initiated Gender Inequality Index (GII) to measure inequality between genders in various dimensions such as health, education, political representations, labor market and economy for a respective nation. The higher is the index score, the more likely is the disparities between gender and the more loss suffered by that particular nation in human development. The GII 2020 indicated that Malaysia was at 59th place out of 189 nations and obtained a score of 0.253. By comparing to another country in the region namely Singapore, Malaysia was far behind, in which the latter obtained a better score of 0.065 and at the higher position of 12th place.

To date, the Malaysian government has initiated a multitude of policies and initiatives to empower women as well as to mitigate gender inequality. In light of this, a vast amount of public monies has been spent every year by the government on women entrepreneurship programs. For instance, in the 2020 budget, RM200 million were allocated to promote women's participation in entrepreneurship (The Star Online, 19th Oct 2019). The funds also are intended to transform them into quality, poised, resilient and successful entrepreneurs.

Also, various agencies have been established to encourage and support women in becoming successful entrepreneurs (Teoh & Chong, 2007). This has been seen by the influx of women in the entrepreneurial landscape. Their role has consequently shifted from housewives to breadwinners. They are trained to form strategic decisions and can contribute to both aspects, financial and non-financial assistance to families and communities. Hence, involvement in entrepreneurship would dramatically vest women in greater control and power.

Additionally, as part of the eradication programs, the government has set up a microcredit institution in pursuit of empowering women specifically for those who are in low household income. The institution provides borrowers with small credit besides training designed to elevate entrepreneurial skills and development. This is either to assist them in setting up new businesses or supporting existing businesses. As of 2019, almost 99 percent, or approximately 400,000 of its borrowers were rural women entrepreneurs (Jumbri et al., 2020). This microcredit program emulates what is practiced by Grameen Bank in Bangladesh. Inadvertently, the model has effectively created successful women entrepreneurs which have been replicated by many microcredit institutions all over the world.

Though abundances of interventions have been implemented, gender inequality persists. Women's participation is scarce and thus far from promising (Kanapathipillai & Azam, 2019). Many encountered a multitude of obstacles and challenges specifically in the start-up phase. Entrepreneurship is still dominated by men. Although women have gradually become significant players in the entrepreneurial landscape, they are always overshadowed by men.

According to Ling et al., (2017), women entrepreneurs in Malaysia faced various challenges in running their businesses. Intertwined with numerous obligations and responsibilities such as taking care of families, doing house works besides having to focus on business activities. Accountable to those duties, they hinder them from attending training, seminars and workshops on entrepreneurial development. This will also limit their knowledge on technology, networking and socializing; hence, they are unable to exploit the opportunities for the advantages of their business.

Indeed, the probability of success is significantly slim for women entrepreneurs in Malaysia (Ling et al., 2017; Alam et al., 2011). Even worse, the Covid-19 pandemic has a harder impact on women and exacerbated existing inequalities. This puts them at a higher risk of stumbling into poverty (Batool & Ullah, 2017). Thus, women are vulnerable to any uncertainties and always on the

losing ends, which make a difference between stagnation and growth, failure and success of their business.

The above phenomenon indicates that the existing policies, strategies and programs have yet to make women entrepreneurs succeed and being empowered. Gender inequality therefore persists or even widens. Intrigued with the aforementioned issues, a study is essential in a quest of looking for antecedent factors of women entrepreneurs' success. Many factors have been examined and indicated by previous studies which were significantly related to entrepreneurial success, amongst others are social supports (Alzamel et al., 2019; Farooq et al., 2018; Farrukh et al., 2017; Malino et al., 2018; Batool & Ullah, 2017), self-efficacy (Baron et al., 2016; Gielnik et al., 2015; Lex et al., 2020) and technology usage (Afolayan et al., 2015; Jasra et al., 2011; Radzi et al., 2017).

Apart from that the importance of virtue ethics manifested by honest, good ethical values are also important factors for one to become successful entrepreneurs (Amin et al., 2019). Despite that, embracing virtue ethics is vital for entrepreneurial success, but the factor is rarely being empirically tested by entrepreneurship literature. Pinto-Gray (2019) suggested that in predicting entrepreneurial success, future studies should consider virtue ethics. Emulating Social Cognitive Theory and previous studies, the objective of this study is to examine the relationship between self-efficacy, technology usage, virtue ethics and social support with women entrepreneurs' success.

With this regard, the paper starts with an introduction and is followed by reviewing the literature. Next, it describes the methodology before discussing on findings. Finally, it ends up with a conclusion that includes practical and theoretical implications together with limitations and suggestions for future studies.

## **LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **Social Cognitive Theory**

The underlying theory of this study is based on Social Cognitive Theory. The theory posits that positive outcomes or behavioural changes are influenced by individual experiences together with the skill to exploit the environment and social factors (Bandura, 1997). The theory has been frequently used by prior studies and successful in predicting positive outcomes. In the context of this study, the positive outcome is women entrepreneurs' success.

### **Women Entrepreneurs' Success**

Entrepreneurs are those who innovate and carry out business. They are prime movers in economic development, willing to undertake risk and always endeavor to invent (Hasni et al., 2012). Allowing women to be involved in entrepreneurship or job creation activities, earn independent income, form strategic decisions and become successful in business is one way of empowerment. Indeed, successful women entrepreneurs would be empowered to control and exercise authority, possess high self-esteem and thus agile to any vibration of the economy and digital technology.

Running a business is not an easy task or overnight success. Even more, women entrepreneurs are vulnerable to the economic crisis, uncertainties and gender disparities. Many fail to sustain even with the government interventions. Nevertheless, the financial rewards that come from being successful in business are crucial to empower women. These are also the key factors in motivating them to work hard and take tremendous risks. As such, what factors make women entrepreneurs successful are crucial to be investigated. In light of this issue, the study will review prior literature concerning the phenomenon of interests that relates to factors of women entrepreneurs' success.

As such, what makes women entrepreneurs successful is crucial to be investigated. In light of this issue, the study will review prior literature concerning the factors that relate to successful entrepreneurs. Social Cognitive Theory predicts that the mixture of individual and social factors will lead one to attain positive outcomes or desired goals.

Based on prior literature, the study identifies several individual factors namely self-efficacy, technology usage and virtue ethics. Also, social support is identified as a social factor that is equally important in the pursuit of entrepreneurial success. The integration of these factors is predicted to lead one to achieve their desired goal that is the women entrepreneurs' success.

### **Self-Efficacy and Women Entrepreneurs' Success**

Self-efficacy refers to one's belief in his/her capability to succeed in accomplishing the desired outcome (Bandura, 1982). Entrepreneurs who are high in self-efficacy are more likely to be high in motivation and capability towards achieving the desired goal or become successful. Empirical evidence has supported that self-efficacy has a positive relationship with entrepreneurial success (Baron et al., 2016; Lex et al., 2020; Miao et al., 2017; Palmer et al., 2019).

Baron, et al., (2016) conducted a meta-analysis study and found that there was a positive relationship between self-efficacy and entrepreneurial success. Lex, et al., (2020) also confirmed the significant role of self-efficacy in the relationship with entrepreneurial success. Likewise, Palmer, et al., (2019) found that self-efficacy is a significant contributor to entrepreneurial success. It is similar to a study conducted by Miao, et al., (2017), in which the study found a correlation between self-efficacy and entrepreneurial success.

Though previous studies did not examine specifically gender, the present study predicts that women entrepreneurs exhibit the same direction and outcome. Emulating Social Cognitive Theory and prior studies (Baron et al., 2016; Lex et al., 2020; Miao et al., 2017; Palmer et al., 2019), the following hypothesis is formulated.

*H1: Self-Efficacy is positively related to women entrepreneurs' success.*

### **Technology Usage and Successful Women Entrepreneurs**

In the wake of the Covid-19 pandemic, going digital is not just an indulgence, thus, it is a vital necessity. Entrepreneurs who succeed during this challenging era are those who can adapt to the customers' needs and the willingness to embrace technology to gain a competitive edge (Zakaria et al., 2020). Advertisement to millions of people only at the click of a button is one of the most valuable applications of technology. The web and social media such as Facebook, Twitter, YouTube and WhatsApp are effective avenues for business promotion. Interestingly, apart from visibility features, they are accessible to an unlimited number of online audiences.

In the 21st century era, the use of technology is essential to facilitate efficient information flow for the business. Though technology usage has rarely been used in entrepreneurial studies, few studies have confirmed its significant relationship with the success of small business owners (Afolayan et al., 2015; Ndofireppi et al., 2018; Radzi et al., 2017; Westhuizen & Joel Goyayi, 2020).

Afolayah, et al., (2015) found a positive relationship between technology usage and the success of 161 small business owners in Nigeria. Another study conducted by Radzi, et al., (2017) also indicated that technology usage was related to the success of 199 small business owners in Malaysia. The results were also in tandem with a study conducted by Westhuizen & Joel Goyayi (2020), in which technology usage was positively related to the success of 109 small business owners in South Africa. Likewise, Ndofirepi, et al., (2018) found the relationship between

technology usage and the success of 130 small business owners who had undergone a compulsory business course in South Africa.

Though the relationship between technology usage and success was highly being examined among small business owners, the study predicted that a similar outcome will be exhibited by women entrepreneurs. Emulating social cognitive theory and prior studies (Afolayan et al., 2015; Ndofireppi et al., 2018; Radzi et al., 2017; Westhuizen & Joel Goyayi, 2020), the following hypothesis is formulated.

*H2: Technology usage is positively related to women entrepreneur's success.*

### **Virtue Ethics and Women Entrepreneurs' Success**

Virtue ethics are inspired by the Greek philosopher Aristotle (384-322 B.C) (Brook & Dunn, 2019). Aristotle regarded that ethics are manifested by the possession of practical wisdom, the ability to see what the right is to do in the circumstances. These character traits will dispose of one to act ethically and thereby make him or her a morally good human being. Some of the character traits include honesty, fairness, respect, trustworthiness, generosity and compassion.

Embracing virtue ethics would instill public confidence in entrepreneurs. These traits need to be cultivated over time so that they remain stable in one's character. This is because the stakeholders would trust and can rely on the entrepreneurs' reputation. A qualitative study conducted by Amin, et al., (2019) elicited that virtue ethics is one of the important factors for women entrepreneurs' success. According to Pinto-Garay (2019), virtue ethics are less likely to be empirically tested in entrepreneurial studies despite their important role. Emulating Social Cognitive Theory, Amin, et al., (2019) and the suggestion of Pinto-Garay (2019), the following hypothesis is formulated:

*H3: Virtue ethics is positively related to women entrepreneurs' success.*

### **Social Support and Women Entrepreneurs' Success**

Entrepreneurs need social supports from family, friends and neighbours in pursuit of success. Bhansing, et al., (2018) elucidated that social support is essential in achieving the desired goals. In the context of an organization, supervisory or peer support is important for its success, while support from family and friends might be of importance in the entrepreneurial context.

Many entrepreneurship studies have found social support as a significant factor of entrepreneurial success (Alzamel et al., 2019; Farooq et al., 2018; Farrukh et al., 2017; Molino et al., 2018; Sahban et al., 2016). Alzamel, et al., (2019) found a positive relationship between social support and entrepreneurial success of 216 undergraduate female students in Saudi Arabia. Farooq, et al., (2018) also found that social support positively influenced the entrepreneurial business success of 381 fresh business graduates.

Likewise, another study carried out by Farrukh, et al., (2017) indicated a significant relationship between social support and entrepreneurial success. Molino, et al., (2018) confirmed that social support was positively related to the social support and business success of 658 Italian entrepreneurs. In similar, Sahban, et al., (2016) revealed that there was a positive relationship between social support and the success of 381 Indonesian students who were entrepreneurs. Emulating Social Cognitive Theory and prior studies (Alzamel et al., 2019; Farooq et al., 2018; Farrukh et al., 2017; Molino et al., 2018; Sahban et al., 2016), focusing on the social context could provide a deeper understanding on the effect of an environmental factor, particularly on the women entrepreneurs' success. Therefore, it is hypothesized that:

*H4: Social support is positively related to women entrepreneurs' success.*

## METHODOLOGY

### Data Collection

The population of the study was borrowers of a prominent microcredit provider from the states in Malaysia. The microcredit provider was set up to assist women entrepreneurs who are in the low household income group by providing them small credit. As of 2020, there were about 45,000 borrowers in the state. According to Krejcie & Morgan (1970), the suggested sample size for this volume of population is about 380 respondents.

In light of this, approximately 500 questionnaires were randomly sent to borrowers, selected from the population list. However, extra questionnaires were distributed as a precaution of non-response, incomplete and invalid answers. Also, it is to assure that the number of respondents was not below the recommended sample size.

The questionnaires were given to an officer of the microcredit provider institution to be distributed to the identified borrowers. They were guaranteed that their responses were treated in confidential and anonymous procedure. After a week, the researchers collected the questionnaires from the officer in-charge. For those who did not respond, the researchers would send them text messages. This was to notify them of the importance of their input in pursuit of their success. Finally, 384 borrowers responded, but only 347 were usable for analysis.

### Research Design

A pre-test was carried out before the final survey. In this phase, a total of thirty-five questionnaires were personally distributed to two groups. The first group consisted of five people who were experts in the field. The remaining thirty questionnaires were sent to thirty women entrepreneurs who were the borrowers of the microcredit provider. This was to assure that the instrument language was clear, coherent and reasonable. Besides, it could augment face validity and avoid ambiguity in instruments. All instruments were adapted, from scales that had been tested and validated by prior studies (Radzi et al., 2017; Chen et al., 2001; Zimert et al., 1988). Meanwhile, virtue ethics were adapted from Swaim (2004). After considering all recommendations, remarks and comments, the instruments were modified.

### Questionnaire Design

The questionnaire was assigned into two parts. In the earlier parts, the respondents were requested to indicate their perceptions of women entrepreneurs' success. Eight items were used to measure perceived women entrepreneurs' success, which was adopted from a prior study (Radzi et al., 2017). Technology usage was also adopted from Radzi, et al., (2017) measured by four items. Self-efficacy and social supports were both measured by eight items adopted from Chen, et al., (2001); Zimert, et al., (1988) respectively. Finally, virtue ethics were measured by 8 items.

## FINDINGS

### Demographic Profiles

Respondents of the study consisted of 347 women entrepreneurs. From this amount, 256 or 73.8 % were married, 34 or 9.8 % were single-parent, 29 or 8.4 % were widower or widow and the

remaining 28 or 8.1 % were single. All respondents were Malays. In terms of age, the majority were aged between 40 – 49 years (106 respondents or 30.5 %), followed by 30 – 39 years (114 respondents or 32.9 %), 50 – 60 years (76 respondents or 21.9 %) and above 60 years (6 respondents or 1.7 %). Finally, a total of 239 or 68 % of the respondents had secondary or high school education, followed by diploma holder or above (70 respondents or 20.2 %), primary education (26 respondents or 7.5 %) and those without basic education (15 respondents or 4.3 %). The demographic profiles of the respondents are depicted in Table 1.

### Respondents' Demographic Profiles

<b>Profiles</b>	<b>Types</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Marital Status	Single	28	8.1
	Single parent	34	9.8
	Married	256	73.8
	Widow/ Widower	29	8.4
	Total	347	100.0
Age	20-29	45	13
	30-39	114	32.9
	40-49	106	30.5
	50-59	76	21.9
	Above 60	6	1.7
	Total	347	100.0
Education	Without basic education	15	4.3
	Primary/ lower school	26	7.5
	Secondary/ high school	236	68
	Diploma or higher education	70	20.2
	Total	347	100

N=347

### The Measurement Model

The Social Cognitive Theory underlies the research framework, which was used as a model in examining the factors of women entrepreneurs' success. The model was tested with Sequential Equation Model (SEM) using the approach of Smart Partial Least Square (PLS) version 3. It was analyzed in two stages namely measurement and structural models.

The measurement model was evaluated in stage one. In this stage, data were evaluated in terms of reliability and validity. The validity was analyzed for convergent validity, discriminant validity and Variable Inflation Factors (VIF). The reliability, on the other hand, was analyzed by Cronbach alpha and composite reliability. Meanwhile, effect size, predictive relevance and hypotheses testing were analyzed in the structural model of stage two (Table 2).

<b>Table 2 Measurement Model</b>						
<b>Construct</b>	<b>Item</b>	<b>Loading</b>	<b>Cronbach</b>	<b>rhoA</b>	<b>CR</b>	<b>AVE</b>
BSC	BSC1	0.892	0.893	0.904	0.926	0.757
	BSC2	0.889				
	BSC3	0.900				
	BSC4	0.796				
SE	SE1	0.906	0.914	0.915	0.946	0.854
	SE2	0.940				
	SE3	0.926				
TU	TU1	0.894	0.876	0.880	0.915	0.730
	TU2	0.892				
	TU3	0.838				
	TU4	0.789				
VE	VE1	0.759	0.903	0.904	0.928	0.722
	VE2	0.860				
	VE3	0.911				
	VE4	0.871				
	VE5	0.840				
SS	SS1	0.831	0.877	0.880	0.916	0.731
	SS2	0.823				
	SS3	0.896				
	SS4	0.867				

BSF: Women Entrepreneurs' Success, SE: Self-Efficacy, TU: Technology Usage, VE: Virtue Ethics., SS: Social Support.

**Convergent Validity**

Convergent validity is performed to measure whether the items in a similar concept conform. The convergent validity is evaluated by three assessments namely Average Variance Extracted (AVE), Composite Reliability (CR) and factor loadings as suggested by Hair et al., (2017). The amount of variances encompassed in the indicators that contributed to the latent construct is measured by the AVE. The CR gauges internal consistency within items.

Results showed that the AVEs for all constructs were between 0.722 and 0.854, which were above 0.5 as suggested by Hair, et al., (2017). The results further indicated the values of CR were from 0.722 to 0.854 and Cronbach Alphas were between 0.876 to 0.914, exceeding the threshold value of 0.7 (Hair et al., 2017).

Additionally, the results revealed that factor loadings for all items were between 0.876 to 0.926, which were higher than 0.60 as recommended by Chin (1998). Items with factor loadings of less than 0.6 were omitted from further analysis. Hence, the measurement model demonstrated that it had qualified all the convergent validity requirements. Table 2 depicts the results of the measurement model.

**Measurement Model**

<b>Table 3 MEASUREMENT MODEL</b>						
<b>Construct</b>	<b>Item</b>	<b>Loading</b>	<b>Cronbach</b>	<b>rhoA</b>	<b>CR</b>	<b>AVE</b>
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	SS3	0.896				
	SS4	0.867				
BSF: Women Entrepreneurs' Success, SE: Self-Efficacy, TU: Technology Usage, VE: Virtue Ethics, SS: Social Support.						

**Discriminant Validity**

Discriminant validity is to measure whether or not every construct is distinct in concept from one to another. The discriminant validity is analyzed by Heterotrait-Monotrait Ratio (HTMT) of correlations. Using the HTMT criterion involves comparing it to a predefined threshold. If the value of the HTMT is higher than this threshold, one can conclude that there is a lack of discriminant validity. Results indicated that all the correlations between constructs were less than the threshold value of 0.9, indicating that the measurement model demonstrated adequate discriminant validity (Gold et al., 2001; Teo et al., 2008). Table 3 depicts the results of discriminant validity.

**Discriminant Validity – HTMT Ratio**

	BSF	SE	TU	VE	SS
BSF					
SE	0.753				
TU	0.720	0.723			
VE	0.773	0.866	0.830		
SS	0.752	0.785	0.885	0.896	
BSF: Business Success Factor, SE: Self-Efficacy, TU: Technology Usage, VE: Virtue Ethics, SS: Social Support.					

**Variable Inflation Factors (VIF)**

VIF indicated the strength of the correlation between independent variables (exogenous constructs) which is explained by other independent variables. Multicollinearity occurs when two or more independent variables are highly correlated with one another in a regression model. Results indicated that the VIF values of all the correlations were between 2.805 and 3.969, which is below

5.0, confirming that there were no issues of multicollinearity (Hair et al., 2017). Table 4 depicts the VIF value for all independent variables.

### Inner VIF Value (Lateral Collinearity)

<b>Construct /Variable</b>	<b>Business Success Factor</b>
Self-Efficacy	2.805
Technology Usage	3.969
Virtue Ethics	3.886
Social Support	2.812

### Assessment of Structural Model

After fulfilling all the requirements of the measurement model, data would be further assessed in the structural model of stage two. In this stage, the data were analyzed in three assessments namely effect size, predictive relevance and hypotheses testing.

### Assessment of Effect Size

The effect size ( $f^2$ ) measures the magnitude of the impact of multiple independent variables on a dependent variable. The interpretation of the impact of  $f^2$  at the structural level is small when the effect is 0.020 to 0.150 (small), 0.150 to 0.350 (medium), or larger than 0.350 (large). Results indicated that the values of  $f^2$  ranged from 0.020 to 0.069 for hypothesized relationships, indicating that the independent variables have a small effect on the dependent variable namely women entrepreneurs' success.

### Predictive Relevance

This assessment is to examine the predictive relevance ( $Q^2$ ) of the dependent variables (Stone, 1974). According to Hair et al., (2017), the structural model with  $Q^2$  above than zero value is assumed to have predictive relevance. Results indicated that the  $Q^2$  was higher than zero, which means that the structural model can provide a prediction of the endogenous latent variables indicators.

### Hypotheses Testing

After fulfilling all the requirements of the measurement model, data would be proceeded for hypotheses testing. This is to examine whether or not the hypothesized relationships between variables are supported. The relationships are indicated by path coefficient in beta value ( $\beta$ ) and tested for their significance through t-values obtained from the bootstrapping method, indicating how well the data support the hypotheses (Chin, 1998; Sang et al., 2010).

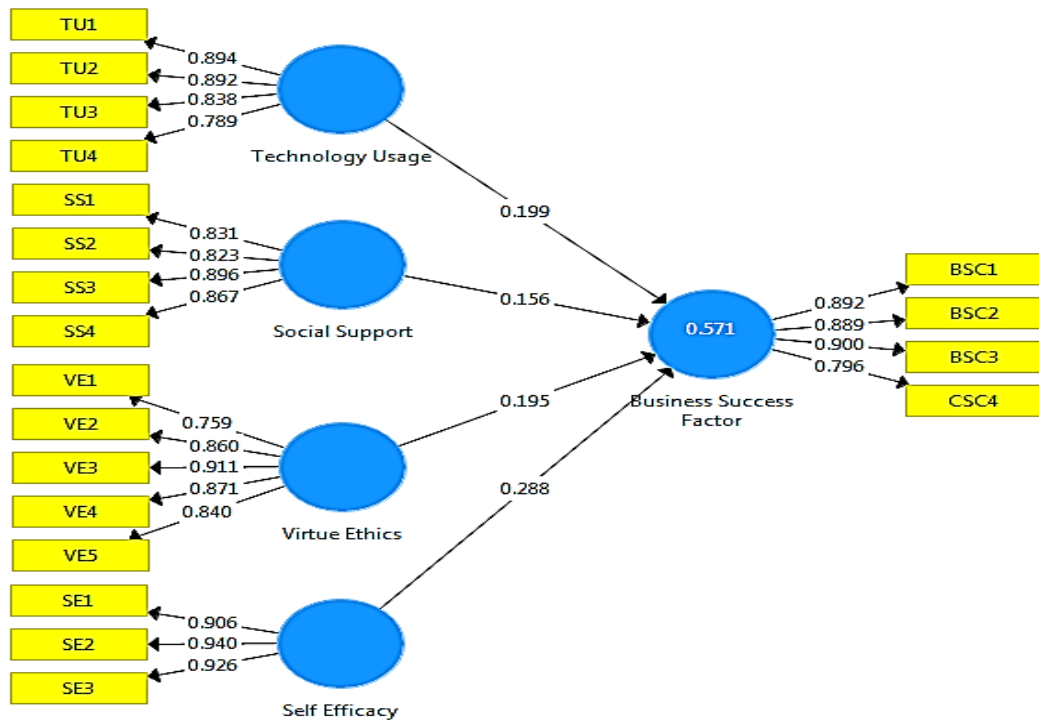
The coefficient of determination,  $R^2$  is also assessed.  $R^2$  denotes the number of variances on every independent variable which explains the dependent variable as shown in percentage value. Results indicated that women entrepreneurs' success was explained by 57.1 % of the self-efficacy, social support, technology usage and virtue ethics. The results also indicated that all hypothesized relationships were supported, in which the women entrepreneurs' success were positively related to

self-efficacy ( $\beta_1=0.288, p<0.01$ ), technology usage ( $\beta_2=0.199, p<0.01$ ), virtue ethics ( $\beta_3=0.199, p<0.01$ ) and social support ( $\beta_4=0.156, p<0.01$ ). Table 5 depicts the Structural Model (results of path coefficients, hypotheses testing, effect size and predictive relevance). Additionally, the structural model is depicted in Figure 1.

**Structural Model**

Table 5 STRUCTURAL MODEL								
Hypothesis	Relationship	Std. Beta	Std. Error	t-value	Results	R <sup>2</sup>	f <sup>2</sup>	Q <sup>2</sup>
H1	SE -> BSF	0.288	0.052	5.517	Supported	0.566	0.069	0.402
H2	TU -> BSF	0.199	0.073	2.741	Supported		0.023	
H3	VE -> BSF	0.195	0.077	2.517	Supported		0.023	
H4	SS -> BSF	0.156	0.063	2.483	Supported		0.020	

WES: Women Entrepreneurs' Succes, SE: Self-Efficacy, TU: Technology Usage, VE: Virtue Ethics, SS: Social Support.  
 \* $p<0.05$ , t value is greater than 1.645. \*\* $p<0.01$ , t value is greater than 2.33. N: 347.



**FIGURE 1  
STRUCTURAL MODEL**

**DISCUSSION**

The Social Cognitive Theory that underlies the model of this study is fit and reliable in predicting the factors of women entrepreneurs' success. Results indicated that the percentage of the

total variance of independent variables namely self-efficacy, technology usage, social support and virtue ethics which contributed to women entrepreneurs' success was 57.1 %. Hence, the results provide useful insights into what leads to women entrepreneurs' success.

Self-efficacy was the first factor hypothesized to be related to women entrepreneurs' success. Results supported hypothesis H<sub>1</sub> ( $\beta_1=0.288, p<0.01$ ). The results were also aligned to Social Cognitive Theory and prior studies (Nguyen et al., 2017; Baron et al., 2016; Lex et al., 2020; Miao et al., 2017; Palmer et al., 2019). This factor obtained the highest magnitude of impact and hence belief in self-capability is the paramount factor for women entrepreneurs' success.

Technology usage was hypothesized to have a positive relationship with women entrepreneurs. Results supported hypothesis H<sub>2</sub>, ( $\beta_2=0.199, p<0.01$ ) and construed to prior studies (Afolayan et al., 2015; Radi et al., 2017; Westhuizen & Joel Goyayi, 2020; Ndofireppi et al., 2018). Indeed, in the new normal or Covid19 pandemic era, the avenue of business activities has to switch from physical to online, as the transmission of the virus. Embracing and mastering technology are therefore a crucial requirement that determines the success of women entrepreneurs as the business activities can only be performed virtually.

The third hypothesis was to examine the relationship between virtue ethics and women entrepreneurs' success. Likewise, the results supported hypothesis H<sub>3</sub> and were consistent with Social Cognitive Theory and a prior qualitative study conducted by Amin, et al., (2019). Indeed, to be successful entrepreneurs, women need to embrace virtues ethical values and honesty to gain trust, confidence and reliance from their customers.

Finally, the fourth hypothesis was formulated to examine a positive relationship between social support and women entrepreneurs' success. Results supported hypothesis H<sub>4</sub> ( $\beta_4=0.156, p<0.01$ ) which was in tandem with Social Cognitive Theory and prior studies (Alzamel et al., 2019; Farooq et al., 2018; Farrukh et al., 2017). Thus, support from family, friends and anybody who are important to the women entrepreneurs is essential in the pursuit of their success.

## **Theoretical Implications**

The present study supports Social Cognitive Theory, confirming that the theory is a fit and compelling model for predicting women entrepreneurs' success. The study also contributes to the body of knowledge of entrepreneurial literature on the importance of self-efficacy, technology usage, social supports and virtue ethics to women entrepreneurs' success. The discoveries are beneficial for future studies that can be applied to various contexts and nations.

## **Practical Implications**

The study contributes practical implications to policymakers, microcredit providers, academia, entrepreneurs and the like on the importance of four factors namely self-efficacy, technology usage, social supports and virtue ethics towards women entrepreneurs' success. Developing motivational programs that complement the existing skills by integrating self-efficacy, technology and virtue ethics is vital for women's entrepreneurial success. Apart from that, focusing on the most pressing needs required by women entrepreneurs is also essential. Moreover, motivation should be given to women persistently to keep them motivated and inspired in pursuit of success.

Social support is equally important as women should not be burdened with house works. They need support from family, friends and the surrounding by providing them the flexibility to balance housework and working lives. Hence, women entrepreneurs who are succeeding, would possess high self-esteem, become financially autonomy and able to take actions that surpass the expectations of others which might have been imposed upon them.

## CONCLUSION

The results indicated that all four factors namely self-efficacy, technology usage, social supports and virtue ethics are significantly related to women entrepreneurs' success. Self-efficacy obtained the highest magnitude of impact, followed by technology usage, virtue ethics and social support. The discoveries provide beneficial insights to the government, microcredit providers, academia and women entrepreneurs on the importance of believing in self-capability, mastering technology, being ethical and support from social groups in pursuit of success. Women entrepreneurs who succeed would be high in self-esteem, can form strategic decisions, financially independent and empowered to exercise control and authority. Therefore, a concerted effort should be performed by all parties to realize not only the aspiration of the sustainable development goal of the united nation but also the Malaysian government's agenda in empowering women and reducing gender inequality by 2030.

### Limitations and Suggestions for Future Studies

Despite that the study supports the theory and prior literature; it has few limitations to be pondered. First, the data were analyzed quantitatively, whereby the respondents were required to answer the given questions. They cannot freely express their experiences and predicaments which are essential in understanding the phenomena of study. To mitigate this issue, future studies are suggested to be conducted qualitatively by using a phenomenological approach. In this approach, the data will be interpreted on how the phenomenon existed based on respondents' experiences, opinions and views.

Another limitation identified is the respondents were chosen from one particular state in Malaysia. Results cannot be generalized to other states or represent the entire Malaysian population. To enhance validity, future studies are suggested to replicate the model and examine the phenomenon of interest in other states. Hence, it is interesting to discover the differences and similarities of the results in various geographical contexts.

Finally, the study is specifically focused on women entrepreneurs' success. Nevertheless, the success of women entrepreneurs, as opposed to men, is also important which has yet to be explored. Future studies, therefore, are suggested to conduct comparative studies that specifically focus on gender inequality in pursuit of entrepreneurial success.

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