

UNDERSTANDING THE PERCEPTION OF WOMEN ENTREPRENEURS AND THEIR ADOPTION OF SOCIAL MEDIA: STRATEGIES AND CHALLENGES IN THE KINGDOM OF SAUDI ARABIA

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ABSTRACT

This article examines the effect of perception of women entrepreneurs on adopting social media platforms and how the socio-cultural and financial challenges are moderating this effect. For this purpose, women entrepreneurs from Jeddah, Riyadh, and Khobar were approached, and 253 responses were gathered. For the empirical analysis purpose, confirmatory factor analysis (CFA) and structural equation modelling (SEM) was carried out. The outcomes of the study have suggested that only financial challenges moderate the relation of perception of women entrepreneurs with the implementation of social media. It is found that socio-cultural positively but insignificantly moderates the effect of perception of women entrepreneurs on the adoption of social media, but financial challenges affect positively and significantly. In this regard, the study also provides implications for policymakers.

Keywords: Women Entrepreneurs, Social Media, Challenges, Strategies, Saudi Arabia.

INTRODUCTION

Over the centuries, Saudi Arabia has maintained a culture that is based on the aspects of feudalism, religious, and traditional morals. Such societies are considered to be strongly patriarchal, where the rights of women are practised at minimal levels (Ahmad, 2011; Alturki & Braswell, 2010; Sadi & Al-Ghazali, 2010). However, the role of women has generally focused on a child brought up and reserving to the homes. Considering the strict patriarchy in the country, the change has been taken place, and the change is known to be dramatic as the traditional norms of the society are changing in the country (Danish & Smith, 2012; Naguib & Jamali, 2015). According to the article of Minkus-McKenna (2009), it has been highlighted that diversity, information, and change are considered as the main actors of the present society, and hence this era is known to be the age of innovation, technology, and information. Within the scope of technological innovation, the conditions of the competition mainly require restructuring at different stages of life.

Arabian Business Global (2019) reported that in Saudi Arabia, 600,000 women were recruited as a workforce in both the private and public sectors in the first quarter of 2019. The study further evaluated the growth rate and asserted that the turnover is 282% within a year. However, when it comes to businesses registered under the name of women in Kingdom of Saudi Arabia (KSA), Al-Kwafi et al. (2020) quoted the annual business statistics in Saudi Arabia by mentioning that there are only 4% businesses named under women whereas, remaining 96% businesses are registered under the name of men. Concerning the statistics, it is deemed that governmental initiatives are needed to break these stereotypes as women are considered as unfeasible for owning businesses in KSA (Arab News, 2017). In furtherance, another report of

Arabian Business Global (2019a) has highlighted that Vision 2030 is introducing women to the new dimensions and levels of economic empowerment and leadership.

The growing number of entrepreneurial activities in Saudi Arabia by women in recent years is a new indication of the success that women are achieving in diversified fields. A study conducted by Naguib & Jamali (2015) highlighted that the small businesses owned by women are successful due to the effective implementation of social media, which is helping them in reaching out to their customers. Furthermore, the facts presented in the report of Saudi Gazette (2018), which highlighted that women in the Business Network Platforms launched by Small and Medium Enterprise General Authority (Monshaat), had held different women entrepreneurs with the innovative fields. An ideal situation is provided to the women entrepreneurs of Saudi Arabia by the platform which is mainly for women entrepreneurs that belong to different fields like technology, development, and services which helps in building a proper vision of entrepreneurship in Saudi Arabia leading to economic development (Danish & Smith, 2012). However, only a handful of studies have focused on evaluating the challenges of adopting social media encountered by women entrepreneurs of KSA. Hence, this research intends to examine the views of female entrepreneurs regarding challenges and issues they are facing along with the strategies used to overcome them that mainly relates to the adoption of social media. The central gap identified in the study is based on the fact that there are no ample studies carried out, which can mainly focus on women entrepreneurship in Saudi Arabia, along with their adoption of social media platforms. Previous researches that are carried in the context of Saudi Arabia are mainly related to women entrepreneurship, whereas there are traditional approaches that are proposed in previous researches. No previous researches have focused on the use of social media platforms in women entrepreneurship especially, in the context of KSA. This research mainly focuses on the adoption of social media channels. The focus is on the problem that the women in Saudi Arabia are not provided with equal opportunities and rights; therefore, they could practice and implement their business ideas. Also, it is imperative to say that social media provides many opportunities for women entrepreneurs to establish their business and get success in the market. Therefore, reflecting on the problem, the objectives of the study are designed as,

1. To evaluate the significance of women entrepreneurship in Saudi Arabia.
2. To identify the challenges of women entrepreneurship and the adoption of social media in Saudi Arabia.
3. To evaluate the perception of women entrepreneurs about the strategies and challenges concerning the adoption of social media in Saudi Arabia.

The research question which has been set of this research paper is as,

Q. What are the perceptions of women entrepreneurs about the strategies and challenges about the adoption of social media in Saudi Arabia?

The paper continues by setting up writing literature for understanding key ideas relating to female entrepreneurship. The sample consists of women entrepreneurs who are operating their business, both physical and through online channels in Jeddah, Riyadh, and Khobar. In particular, the study has also focused on investigating both socio-cultural and financial challenges along with the constraints faced coupled with strategies that can be used for improved adoption of social media.

LITERATURE REVIEW

Women Entrepreneurs

Globally, the concept of entrepreneurship is commonly recognised as the most crucial segment for the country's economic growth. Notably, countries that are going through a transition period are more likely to gain some important outcomes from entrepreneurship in terms of generating more jobs and enhancing the well-being of citizens (Paul & Shrivatava, 2016; Caputo et al., 2016). In this regard, female entrepreneurs have brought some useful and concrete ideas that foster economic development, growth, and employment. The study carried out by (Sarkar, 2017), defines women entrepreneurs as those women who possess professional skills and specific financial capacities, or women who also practised training in those specific areas. Moreover, women entrepreneurship is considered a stride towards uniformity and an essential source of poverty alleviation in a country (Aslam et al., 2013; Paoloni et al., 2018).

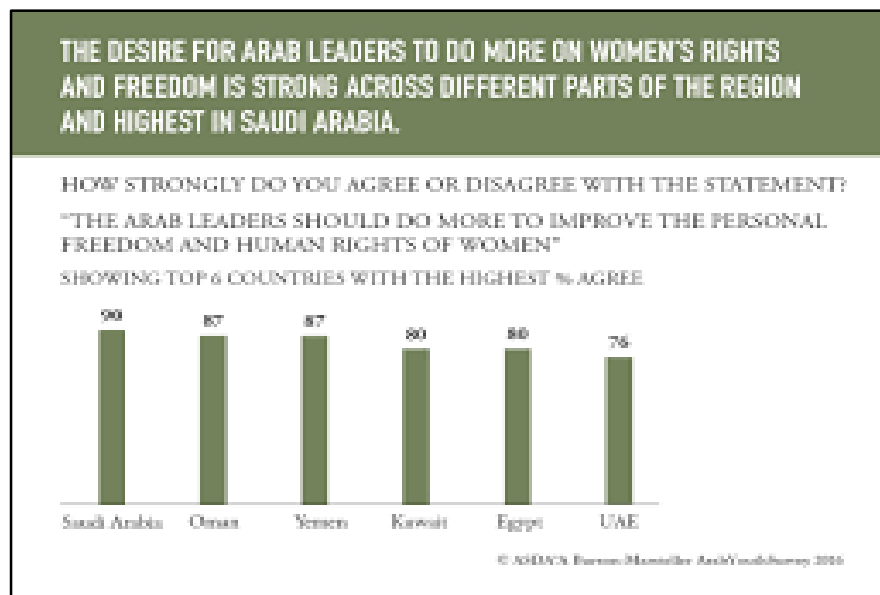
As per the study of Hashmi (2019), over the years women have shown noticeable progress in the economic growth; however, their overall impact towards the economy is still considered to be moderate as only 37% of all the global firms are owned by women's, and the leadership positions that women hold is only 18% of the overall enterprises (Gashi & Gashi, 2019). Following the same study, the global earnings to women are predicted to rise from \$13 trillion to \$ 18 trillion in the next five years. Therefore, economies need to pay close attention to women and encourage them to exploit their capabilities for strengthening the economic position of the country. In the current situation, the concept of women empowerment is not just limited to developing job opportunities for them, but it requires women to set up their businesses to more opportunities for the sake of social and economic development (Sangolagi & Alagawadi, 2016). Countries are looking for opportunities for female entrepreneurs to start-up their businesses because of the significant potential that women hold among themselves, which is being reflected from the achievements that they make either in education, sports, or even in the business sector.

Challenges Faced by Women Entrepreneurs

Regardless of the enormous recognition that women entrepreneurs have received for their contribution to different economic activities, the growth in the numbers of women entrepreneurs has still stayed significantly restrained (Moses et al., 2016). Generally, women entrepreneurs are dealt with several operational and social constraint, which continues to confine them from initiating and running economic enterprises (Raghuvanshi et al., 2017). In a male-dominant business environment, women entrepreneurs have found it challenging to attain their full potential due to the immeasurable restrictions and limitations they experience while setting up practical business ventures. The challenges that women entrepreneurs faced are mainly revolved around financial and socio-cultural challenges (Mauchi, 2014; Ghiat, 2014). Similarly, in the context of Saudi Arabia, women entrepreneurs are exposed to several challenges that hinder their abilities to start and run their business operations. Based on Islamic laws interpretation, the government of KSA has traditionally put several limitations on women about their profession and their rights to run their own business (Basaffar et al., 2018). However, it has also been discussed through the findings of Moshashai et al. (2018), the government of KSA is now undergoing structural changes in the majority of its policies or reforms. It can be stated that the government has now realised the importance of women empowerment and the role they can play in different sectors, including the business sector. Besides all these initiatives and development

that has taken place in the current era, the intervention of women and their extended role in different sector is still a debate in the low conservative KSA's societies (Samara et al., 2015). According to Islam (2014), the government of KSA has focused on empowering women and is devoted to giving rights to women that Islam as a religion has provided. However, there is still a considerable debate among Saudi academicians that whether the government policies and reforms are inspired by religion or there are social and cultural norms that are creating hurdles and restrictions for women in the social and financial terms.

The lack of capital or financial challenge has been identified as the major challenges that are women entrepreneurs faced around the world (Thieu et al., 2017; Goel & Rajkumar, 2018). Women entrepreneurs mostly end up losing their businesses not due to the failure of the business, but mainly because of financial constraints. Moreover, under the study carried out by Anggadwita et al. (2017), women entrepreneurs have faced more challenges from prevailing socio-cultural issues, which are mostly linked with societal structure and cultural expectations like attitudes, gender roles, etc. Notably, in the context of developing nation's women, entrepreneurs are dealt with several challenges, which are associated with negative social attitudes occurring from forcefully entrenched biased cultural norms, values, and practices (Panda, 2018). Following the report of Kinninmont & Kinninmont (2017), 90% of the respondents from Saudi Arabia is agreed with the statement, which states that Arab leaders should need to put more effort to enhance human rights and personal freedom of women (Figure 1). This implies that KSA is not fully exploiting the skills of their women entrepreneurs, and their women's entrepreneurs are still exposed to several challenges.



Source: Kinninmont & Kinninmont (2017)

FIGURE 1 VISION 2030 AND SAUDI ARABIA'S SOCIAL CONTRACT AUSTERITY AND TRANSFORMATION

Based on the overall review of previous literature, the following hypotheses are developed for this study:

H1: Financial challenges moderates the relationship between social media usage and perception of women entrepreneurs.

H2: Socio-culture challenges moderate the relationship between social media usage and perception of women entrepreneurs.

Importance of Social Media in Women Entrepreneurship

The applications and platforms of social media are viewed as an important tool for entrepreneurship, which allows entrepreneurs to realise the opportunities and changes in business formation through communications and interactions with peers on different networks (Rai & Sijariya, 2020). These platforms have open up opportunities for entrepreneurs to quickly reach out to their target audience and improve the competitiveness of their business (Ameen & Willis, 2016). Similarly, for women entrepreneurs, the usage of social media platforms plays a crucial role in overcoming financial barriers, which are considered to be a key barrier amongst women entrepreneurs (Cesaroni et al., 2017). Similarly, in the context of KSA, the usage of social media holds colossal importance for women entrepreneurs, as it enables them to overcome cultural and regulatory complications for setting up physical shops (Dahari et al., 2019). The introduction of social media platforms allows the entrepreneurs to save high costs, especially for women it is more appealing as it enables them to achieve their desired business goals while managing their personal lives by being close to their family members.

According to Damanhour (2017), social media has also enabled women, entrepreneurs, to identify entrepreneurial opportunities through online selling. The low operating cost and investment that is associated with social media start-ups is another crucial aspect that encourages women to run their businesses. Moreover, the limited complications for new start-up through social media is another key benefit for women entrepreneurs, as it does not require any significant level of technological understanding (Al-Arfaj & Solaiman, 2019). Therefore, the usage of social media carries out immense importance for women entrepreneurs to overcome some of the significant challenges.

Perception of Women Entrepreneurs Regarding Effective Social Media Usage

In the current business environment, social media platforms are perceived as an essential measure of entrepreneurship activities, which provides women entrepreneurs with an opportunity for business growth (Mack et al., 2017). As per the study of Beninger et al., (2016), most of the women entrepreneurs view Facebook as an essential tool, which allows them to manage the right balance between family and networking life.

In the context of Saudi Arab, the usage of social media has gained massive popularity amongst women entrepreneurs and has been perceived as a useful source for overcoming social restrictions that are imposed on women entrepreneurs. As per the report of Assaf (2017), a wide array of women entrepreneurs is utilising different social media platforms to carry out their business activities. Following the same report, in KSA, 'Insta-businesses' is viewed as a major source of economic independence for women, and also a part of an informal economy. Similarly, several studies (Genç & Öksüz, 2015; Al-Haidari, 2017) have revealed the positive attitude of women entrepreneurs towards the usage of social media channels, as they perceive social media platforms as a useful way for instant messaging, low-cost information disclosure, and an effective way to overcome socio-cultural and financial restrictions. Moreover, the component of flexibility is heartily welcomed by women entrepreneurs, as social media allows women to

effectively manage their businesses along with their family responsibilities (Gavino et al., 2019). Conclusively, as per the review of previous literature, the positive perception of women entrepreneurs has been found regarding the adoption of social media usage. In this regard, the following hypothesis can be deduced:

H3: There is a significant effect of the perception of women entrepreneurs on the adoption of social media.

Conceptual Framework

Explained in below Figure 2

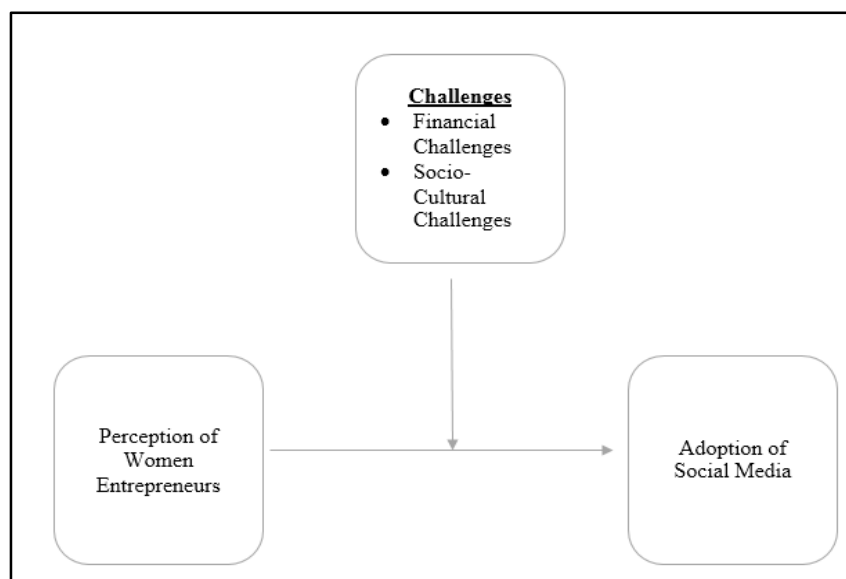


FIGURE 2
CONCEPTUAL FRAMEWORK OF THE STUDY

METHODS

Participants

A total of 300 women entrepreneurs from Jeddah, Riyadh, and Khobar, the kingdom of Saudi Arabia, took part in the survey process. Here, it becomes essential to mention that the survey questionnaire was provided via email and through social media channel Facebook. As a result, the researcher was able to assess the desired respondents; meanwhile, the age group of the respondents was observed as 25 to 36 years old. All participants were informed about the context of the study to make them understand the purpose of the survey. Similarly, participants were also briefed that their participation in the study was voluntary, and they can also opt-out any time without any permission. Therefore, a total of 253 correct and appropriate responses were gathered that could be used for the empirical evidence, so the response rate of the study was 84.33%. This sample size is an appropriate sample to conduct a survey where few scholars, such as Yu-TeTu & Hsu (2013) has used a sample smaller than the present study. Therefore, a response rate of 84.33% is better, along with the sample size of 253.

Procedure

The targeted sample size of the study was 300; however, some of the questionnaires were not appropriately filled, and some questionnaires were intentionally left by participants. Meanwhile, some of the participants had spent very little time to attempt the questionnaire. Therefore, it was determined that any participant completing the questionnaire within three minutes would be considered invalid, given that the questionnaire contained in-depth questions that require the real attention of entrepreneurs that should be reflected in their response. Despite being told that their participation is voluntary, but some of them filled the questionnaire in less than three minutes, and their exclusion was also necessary from the data to ensure data contains real measurable sense and makes analysis right. It has also been used by various scholars in their studies, such as McPeake et al. (2014) and Liu & Wronski (2018). The authors had determined a time threshold that each respondent must pass, where minimum time spending was set at as low as possible, and it was also determined that length and difficulty of the survey were negatively associated with the response rate. In this regard, in the following study, a minimum of 5 minutes was considered as a cut-off, and no upper limit was determined to ensure that the provided questionnaire is appropriately filled by each respondent irrespective of the time constraint (Saleh & Bista, 2017). In this sense, this approach eventually benefited from improving the quality of the survey process as respondents were provided with the questionnaire without any limitation so they could contribute to the theoretical and practical innovation more adequately. As discussed, the questionnaires were provided in Jeddah, Riyadh, and Khobar among the entrepreneurs of various business divisions. However, there can be an identified number of businesses that are owned by women, especially in these cities.

Therefore, the researcher followed the non-probability sampling technique to support the survey process. Regarding the findings of Taherdoost (2016), a non-probability sampling technique is considered to be an effective sampling technique that authorises researchers to take the proportion of population instead of the entire population. Irrespective of the drawbacks of this sampling technique in lights of generalisability and related issues, the technique is vitally crucial in presenting and predicting the viewpoint of the entire population based on the selection proportion of the population. Additionally, it has also been discussed in the findings of Etikan (2016), a non-probability convenience sampling technique is also distinct because of its convenience and freedom that add in the survey process. With consideration of this, it can be stated that a non-probability convenience sampling technique was appropriate and justified sampling technique for the context of the current research.

Instrument Development

The instrument was developed based on the 5-point Likert scale survey questionnaire in which 1 represented the strongly disagree opinion of the participants and five represented strongly agreed opinion of respondents, and the questionnaire contained four sections as follows

- Demographics: There were three specific questions in this section, where respondents were asked about the age group in which they fall, marital status, and status of their education. Participants were asked to tick mark given options in the demographics.
- Perception of Women Entrepreneurs: There were five questions in this section that was specifically designed to measure the perception of women entrepreneurs towards social media. The average of each participant's response to five questions provided a comprehensive opinion of each participant, which was used as the independent variable of the study.

- **Adoption of Social media:** There were four questions in this section, which were also specifically designed to measure the women's opinion on the adoption of social media towards social media. Meanwhile, similar to the previous section, in this section average of each participant's response to five questions was taken and considered a comprehensive opinion of each participant, which was used as the dependent variable of the study.
- **Challenges Faced by Women Entrepreneurs:** In this section, there were two sub-sections; socio-cultural challenges and financial challenges. The purpose of this section was to measure the extent to which participants are facing socio-cultural and financial challenges while being an entrepreneur. In the meantime, each sub-section consisted of three questions, and the average technique was also used for each sub-section to get a comprehensive opinion of each participant on socio-cultural and financial challenges.

Data Analysis

As discussed, the data was collected through a survey questionnaire; however, for analysis, Smart PLS 3 statistical software has been used. It is statistical software that uses the partial least square (PLS) path modelling method in which PLS-based structural equations modelling (SEM) is used. SEM models are being used for their flexibility regarding the distribution assumptions, and in this condition, data that does not meet with the normality can also be used for empirical analysis (Tenenhaus, 2008). SEM modelling belongs to the family of the confirmatory factor analysis (CFA) in which the structure of factors is verified that does the relation between observed variables and the latent variable exists (Thompson, 2004).

The study contained three main variables; perception of women entrepreneurs, adoption of social media, barriers women entrepreneurs facing, and this section also contained two sub-sections measured as socio-cultural challenges and financial challenges. Meanwhile, the statistical technique structural equation model (SEM) was used to create three SEM models; the first model was a basic model that was constructed that attempt to determine how predictor variables are affecting the regressand variable of the study. Meanwhile, the second model of SEM interaction of financial challenges and perception of women entrepreneurs was used to develop an interaction variable to determine how does financial challenges moderates the effect of an independent variable over the dependent variable. Here it becomes essential to give credit to Lee et al. (2010), who have also used this technique previously.

In the third model, the interaction of socio-cultural challenges and perceptions of women entrepreneurs to determine how socio-cultural challenges were moderating the effect of an independent variable over the dependent variable. Meanwhile, the bootstrapping technique was used to approach correct distribution and improve results. The bootstrapping technique is a resampling technique that corrects any distribution through random sampling distribution and thus improves the results of data that is also not normal or non-parametric (Bai et al., 2016). Therefore, in the following study bootstrapping results were used to interpret how variables have been affecting the dependent variable and that how it is being moderated by another variable. Furthermore, reliability, convergent validity, and discriminant validity were also used in the study to ensure that the constructs used in the study are reliable and valid.

RESULTS

Construct Reliability and Validity

A measure is constructed and developed to measure certain variables, and it is often used in survey analysis and social experiments. Therefore, it is crucial that constructs also have to be

reliable and valid to empirically conduct tests on the data collected through those measures (Kim & Kim, 2010). If the constructs are unable to produce consistent results and do not measure what they were designed to measure, in this condition, empirical investigation is worthless as gathered data can be questioned, and empirical results cannot be trusted (Negri, Bassi, and Fave, 2019). Therefore, to overcome the issue of reliability and validity following tests were conducted in which Table 1 illustrates the results of factors loading and construct reliability and convergent validity.

Table 1				
RELIABILITY AND VALIDITY				
Constructs	Factor Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Adoption of Social Media		0.79	0.86	0.55
ASM1	0.68			
ASM2	0.66			
ASM3	0.73			
ASM4	0.81			
ASM5	0.81			
Perception of Women Entrepreneurs		0.82	0.88	0.59
PWE1	0.81			
PWE2	0.76			
PWE3	0.66			
PWE4	0.80			
PWE5	0.79			
Socio-Cultural Challenges		0.73	0.84	0.64
SCC1	0.79			
SCC2	0.83			
SCC3	0.78			
Financial Challenges		0.74	0.85	0.65
FC1	0.85			
FC2	0.74			
FC3	0.83			

In order to determine the internal consistency of the constructs, Cronbach's alpha and composite reliability are being used interchangeably. Similarly, in the subsequent investigation, both were used to examine if constructs have internal consistency. The scholarly work by Huang (2017) and Ul-Hameed et al. (2019) suggests that to assume that constructs have internal consistency, it is a prerequisite that Cronbach's alpha and composite reliability value has to be above the threshold of 0.7. Since the value of Cronbach's alpha and composite reliability is over the 0.7 thresholds; hence it can be claimed that constructs being used in the study are reliable. Besides, the threshold for factor loadings is considered to be 0.6 (Avkiran & Ringle, 2018). In this aspect, all the factor loadings can be deemed as reliable.

On the other hand, the average variance extracted (AVE) is being used to measure the variance that has been explained by the construct, and residual variance is considered as an error of measurement. The work of scholars such as Kuikka & Laukkanen (2016) and Huang et al. (2018) suggests that average variance extracted (AVE) of the construct must be greater than 0.5 to conform to the convergent validity of the construct. Since the value of AVE of all constructs is higher than suggested thresholds, hence it can be claimed that constructs being used in the study do have validity and can be classified as valid.

Discriminant validity

Discriminant validity tries to measure the extent to which a construct varies from another construct given that the difference between the construct must exist; this determines the accuracy of the construct conceptually. The Table 2 provides discriminant validity being measured through Heterotrait-Monotrait Ratio (HTMT).

Heterotrait-Monotrait Ratio (HTMT)	Adoption of Social Media	Financial Challenges	Perception of Women Entrepreneurs	Socio-Cultural Challenges
Adoption of Social Media				
Financial Challenges	0.777			
Perception of Women Entrepreneurs	0.675	0.676		
Socio-Cultural Challenges	0.831	0.682	0.828	

Samar, Ghani, and Alnaser (2017) suggested that the HTMT value of the construct should not cross 0.9 to validate the constructs and assume that constructs are conceptually accurate. Similarly, Table 2 shows that the HTMT value of all constructs is less than 0.9 and meets with the threshold. Therefore, it is evident that constructs that were not supposed to be related are unrelated; hence constructs can be stated as conceptually accurate. Since the constructs used in the study are reliable and are valid; therefore, this allows the researcher to conduct empirical testing further to accomplish research objectives.

Basic Model

In the basic model of SEM, financial challenges, perception of women entrepreneurs, and socio-cultural challenges have been included in determining how they affect the adoption of social media by women entrepreneurs in the Kingdom of Saudi Arabia. Table 3 illustrates the results of the model after bootstrapping, and the model has an R-squared of 0.719, which implies that 71.9% of the variance of the regressand can be estimated by the predictor variables and moderating variables of the study.

Path	Path Coefficients	T Statistics	P Values
Financial Challenges → Adoption of Social Media	0.089	1.482	0.139
Perception of Women Entrepreneurs → Adoption of Social Media	0.498***	10.611	0.000
Socio-Cultural Challenges → Adoption of Social Media	0.360***	6.142	0.000
R-Squared	0.719		
Adjusted R-Squared	0.716		
*** (Significant at 0.01), ** (Significant at 0.05) and * (Significant at 0.10)			

The coefficient value represented by the original sample for the financial challenges is 0.089, with $p=0.139$ implying that financial challenges do not affect the adoption of social media among the women entrepreneurs. Meanwhile, the perception of women entrepreneurs has a coefficient of 0.498 with $p=0.00$, indicating that the perception of women entrepreneurs has a significant positive effect on the adoption of social media in the Kingdom of Saudi Arabia.

Moderation of Socio-cultural Challenges

In this second model of SEM, it has been determined how predictor variables affect the regressand and that how the effect of the variable is moderated by the interaction variable $SCC \times PWE^1$ of the model. In this regard, Model 2, presented in Table 4, illustrates the strength of the model in terms of estimation. R-squared is often termed as the coefficient of determination that has been used by statisticians to describe the strength of models in terms of estimation and prediction. The basic purpose of R-square to tell to what extent the independent variables and moderating variables could explain or estimate the dependent variable of study (Zhang, 2017). Meanwhile, the R-squared of this model is 0.72, which implies that 72% of the variance of the adoption of social media can be explained by all predictor variables and moderating variables of the study. Meanwhile, referring to the estimation and effect of variable table 4 illustrates results:

Path	Path Coefficient	T Statistics	P Values
Perception of Women Entrepreneurs → Adoption of Social Media	0.52***	11.48	0.00
SCC*PWE → Adoption of Social Media	0.04	1.11	0.27
Socio-Cultural Challenges → Adoption of Social Media	0.41***	8.82	0.00
R-Squared	0.72		
Adjusted R-Squared	0.72		

Table 4 shows that if there is one unit of variance in the perception of women entrepreneurs, $SCC \times PWE$, socio-cultural challenges would influence a variation of 0.52 [$p=0.00$], 0.04 [$p=0.27$] and 0.41 [$p=0.00$] respective. This implies that there is a positive and significant impact of perception of women entrepreneurs and socio-cultural challenges on the adoption of social media, but interaction variable ($SCC \times PWE$) does not have a significant effect

¹SCC=Socio-cultural challenge, and PWE=Perception of women entrepreneurs; and their interaction is $SCC \times PWE$

since its effect is relatively low and negligible. This also indicates that the effect of perception of women on the adaption of social media is not moderated by the interaction variable.

Moderation of Financial Challenges

In this third model of SEM, it has been determined how independent variables affect the dependent variable and that how that effect is being moderated by the interaction variable $FC*PWE^2$ of the model. In this regard, Table 5 illustrates the strength of the model in terms of estimation. The R-squared of the third SEM model is 0.68, implying that variables included in the model have explanatory power of 68%. This shows that a 68% variance of the regressed adoption of social media can be predicted or estimated by the independent variable and interaction of the model (Zhang, 2017). However, remaining variability that intact is residual of the model that could only be explained by other factors. Furthermore, Table 5 illustrates the effect of each predictor variable on the predicted variable.

	Original Sample	T Statistics	P Values
FC*PWE → Adoption of Social Media	0.07***	2.16	0.03
Financial Challenges → Adoption of Social Media	0.28***	5.35	0.00
Perception of Women Entrepreneurs → Adoption of Social Media	0.64***	15.06	0.00
R-Squared	0.68		
Adjusted R-Squared	0.68		

It has also been found that if a single unit of change in the $FC*PWE$, financial challenges, and perception of women entrepreneurs would bring a change 0.07 [$p=0.03$], 0.28 [$p=0.00$] and 0.64 [$p=0.00$]. This implies that all variables have a significant and positive effect on the adoption of social media, and that effect is also being moderated by $FC*PWE$.

Summary of Hypothesis

Hypothesis	Coefficient (Significance)	Decision
H1: Financial challenges moderate the relationship between social media usage and perception of women entrepreneurs.	0.07***	Accepted
H2: Socio-culture challenges moderates the relationship between social media usage and perception of women entrepreneurs.	0.04	Rejected
H3: There is a significant effect of the perception of women entrepreneurs on the adoption of social media.	0.52***	Accepted

In accordance with Table 6, the first hypothesis of the study is accepted since the coefficient is positive and significant, indicating that financial challenges positively moderate the interconnection between the social media usage and perception of women entrepreneurs. In contrast, the second hypothesis is rejected since the coefficient is positive, but the effect is insignificant, implying that socio-cultural challenges do not moderate the interconnection

²FC=Financial challenge, and PWE=Perception of women entrepreneurs; and their interaction is SSC*PWE

between the social media usage and perception of women entrepreneurs. The last hypothesis is also accepted, where the effect of perception of women is found significant in the adoption of social media adoption.

DISCUSSION

To summarize the findings of the study, the SEM modelling of the three models revealed that perception of women entrepreneurs and socio-cultural challenges as a whole has a positive and significant effect on the adoption of social media and financial challenges have a positive but statistically insignificant effect. Secondly, the moderating effect of the socio-cultural challenge has been found positive and insignificant, and the moderating effect of financial challenges has been found positive and significant. In the business community, Facebook is an essential part of entrepreneurship activities that allows maintaining a balance between personal life and professional life (Mack et al., 2017; Beninger et al. 2016). Though this statement signifies the importance of social media in the formation of the social bindings among Saudis and Saudis with the other part of the world, nonetheless, the growing importance and use of social media channels in promoting, advertising, and managing businesses are also evident.

Women often use Facebook in pursuance of acquiring suppliers and clients through their connections and connections of their friends. Therefore, Facebook has been very famous and favourable for the women entrepreneurs, and as per the Assaf (2017); Genç & Öksüz, (2015); Al-Haidari, (2017) that women possess an encouraging attitude towards utilization of social media, and perceive it useful, cost-effective and efficient to meet with dynamic needs of the society. In contrast, the outcomes of the present study suggest that financial challenges moderate the effect of perception of women entrepreneurs on the adoption of social media significantly. This indicates that the adoption of social media has been an issue for female entrepreneurs. However, this challenge has become a turning point for them to avail opportunities, expand the business, and get support from the government and other state institutions through effective utilization of social media platforms. Hence, financial challenges have been affecting women positively and encourage them to adopt social media platforms.

However, it is found that socio-cultural positively but insignificantly moderates the effect of perception of women entrepreneurs on the adoption of social media in Saudi Arabia. This suggests that financial challenges do not create hurdles for the adoption of social media for the women, and but socio-cultural challenges create a hurdle for them. It also implies that women in Saudi Arabia are not effectively utilizing social media to attain work-life balance, as suggested by the findings of Mack et al. (2017); Beninger et al. (2016). In contrast, financial challenges encourage women to adopt social media based on the fact that it allows them to support their business and overcome financial challenges (Jose, 2018). However, the insignificant effect of socio-cultural challenges does not affect, but it should also positively influence the use of social media. It is because socio-cultural challenges create opportunities for entrepreneurs to create balance in their personal lives and professional lives.

PRACTICAL AND THEORETICAL SIGNIFICANCE

The findings of the study have provided both theoretical and practical significance. In Saudi Arabia, the number of women entrepreneurs has continued to increase. However, they are facing certain challenges that are affecting the overall growth of entrepreneurial activities in Saudi Arabia. Though this study is limited in its scope and preliminary, however, the findings of

the study can be beneficial for the government officials and SMEs sector so that they can put joint efforts to improve the opportunities provided to the women entrepreneurs.

The study can be beneficial for the women entrepreneurs as well who are looking for different entrepreneurial opportunities but are not provided with ample resources so that they can practice their business idea. One of the primary objectives of women entrepreneurship is to improve the economic condition of the country by providing females with adequate opportunities. When promoting the business through social media, the customers may be inclined towards buying the product, which can improvise the overall situation of entrepreneurship in Saudi Arabia. Also, the identification of key social media platforms will help in quickly capturing the attention of the customers, which is also important for the marketer in the SME sector for deciding on the most effective platform of social media. In this context, the government should also focus on providing opportunities to the women entrepreneurs by equally adopting social media platforms so that the entrepreneurial activities can thoroughly be practised.

As far as the theoretical significance is concerned, the following research has contributed towards the understanding of different concepts related to entrepreneurship along with the challenges which a women entrepreneur might face while practicing entrepreneurship. With respect to the public policy, the management areas, business environment, and training should be considered for the successful promotion of women-owned businesses. Precisely, there should be an increased societal awareness regarding the contribution of women in entrepreneurial opportunities of Saudi Arabia and the issues about the lack of financial support and government programs.

LIMITATIONS AND FUTURE RESEARCH

This study has provided significant theoretical contributions pertaining to the concept of entrepreneurship literature that is applicable in the context of Saudi Arabia. However, it is necessary to identify the limitations and take them into consideration. The first limitation is associated with the sample size as the Saudi women entrepreneurs contribute to a total of 39% of total KSA businesses, the research sample size could be improved in order to bring effectiveness in the results. The second limitation is related to the findings of the study, which are not generalizable to other industries of different nature or other developing countries as the researcher has mainly executed the survey from small and medium enterprises owners.

Lastly, the results were only limited to the quantitative findings where the survey was carried out from the Saudi Women Entrepreneurs. This could also be achieved through qualitative measures by interviewing government specialists and policymakers who could shed light on women entrepreneurship and their adoption of social media. A future study could have a look into the repeated exposures by having a qualitative perspective as well in order to authenticate the findings further. Also, a contrasting study can be carried out for presenting the findings where one developed and one developing country's women entrepreneurship can be compared. This will enable the researchers to have a better idea about the findings.

CONCLUSION

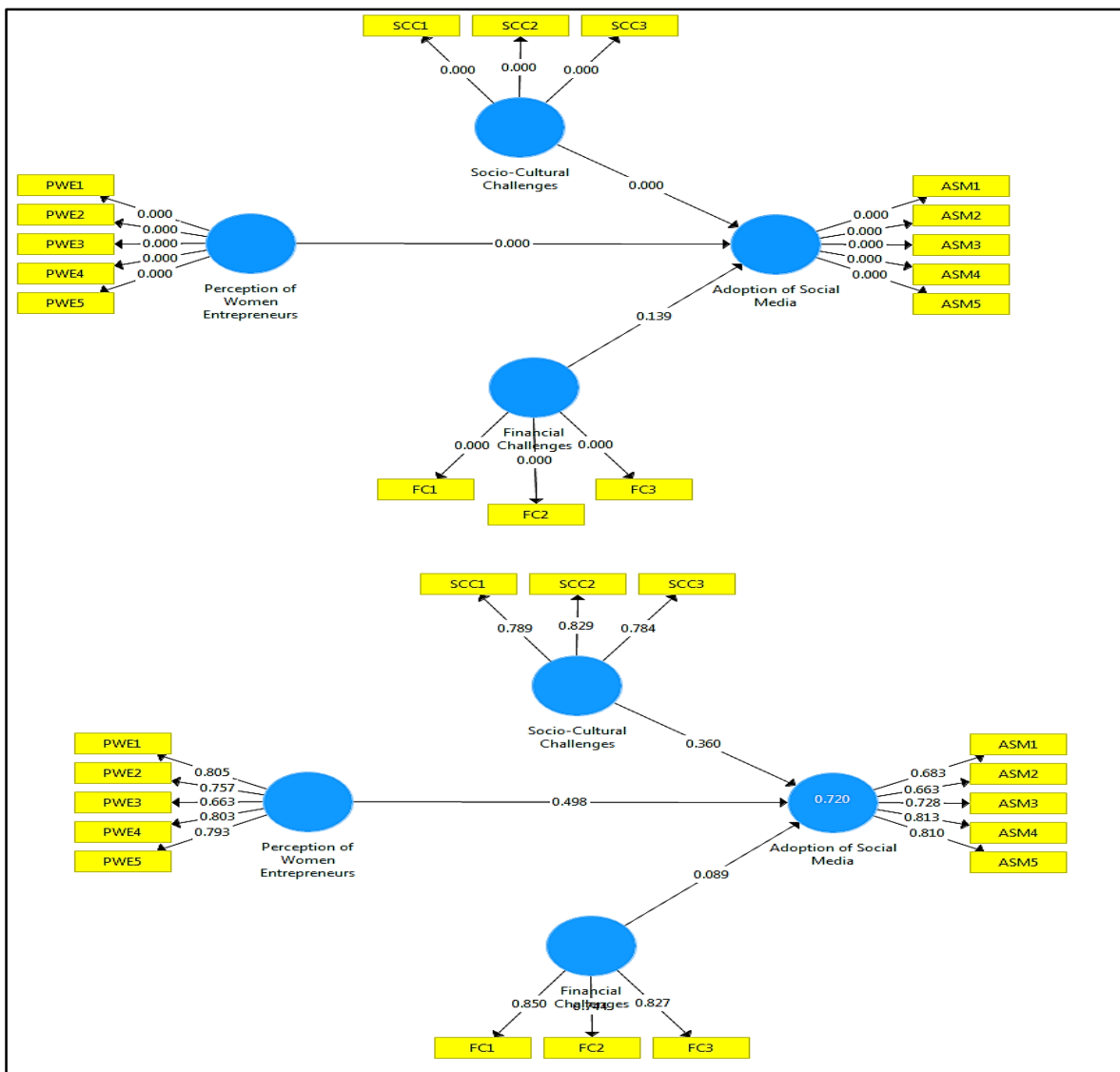
From the findings of the study, it can be concluded entrepreneurship is advancing with the specific focus in Jeddah, Riyadh, and Khobar as it seems to provide different support activities and prospects for women entrepreneurs in the country. The issues identified provided an insight into the overall challenges faced by women in developing countries about women

entrepreneurship. Also, the findings suggest that women entrepreneurs face difficulty in the adoption of social media for promoting their business to potential customers. Based on these findings, it can be suggested that female entrepreneurs should be provided with innovative opportunities to support their business activities with adequate social media platforms to reach out to customers. It can also be suggested that the appetite of entrepreneurship in Saudi Arabia among women is healthy, this suggests that the government of KSA needs to invest in providing access to education and training opportunities so that it can be practised effectively.

APPENDIX

Models

Explained in below Figures 3-5.



**FIGURE 3
BASIC MODEL WITH BOOTSTRAPPING**

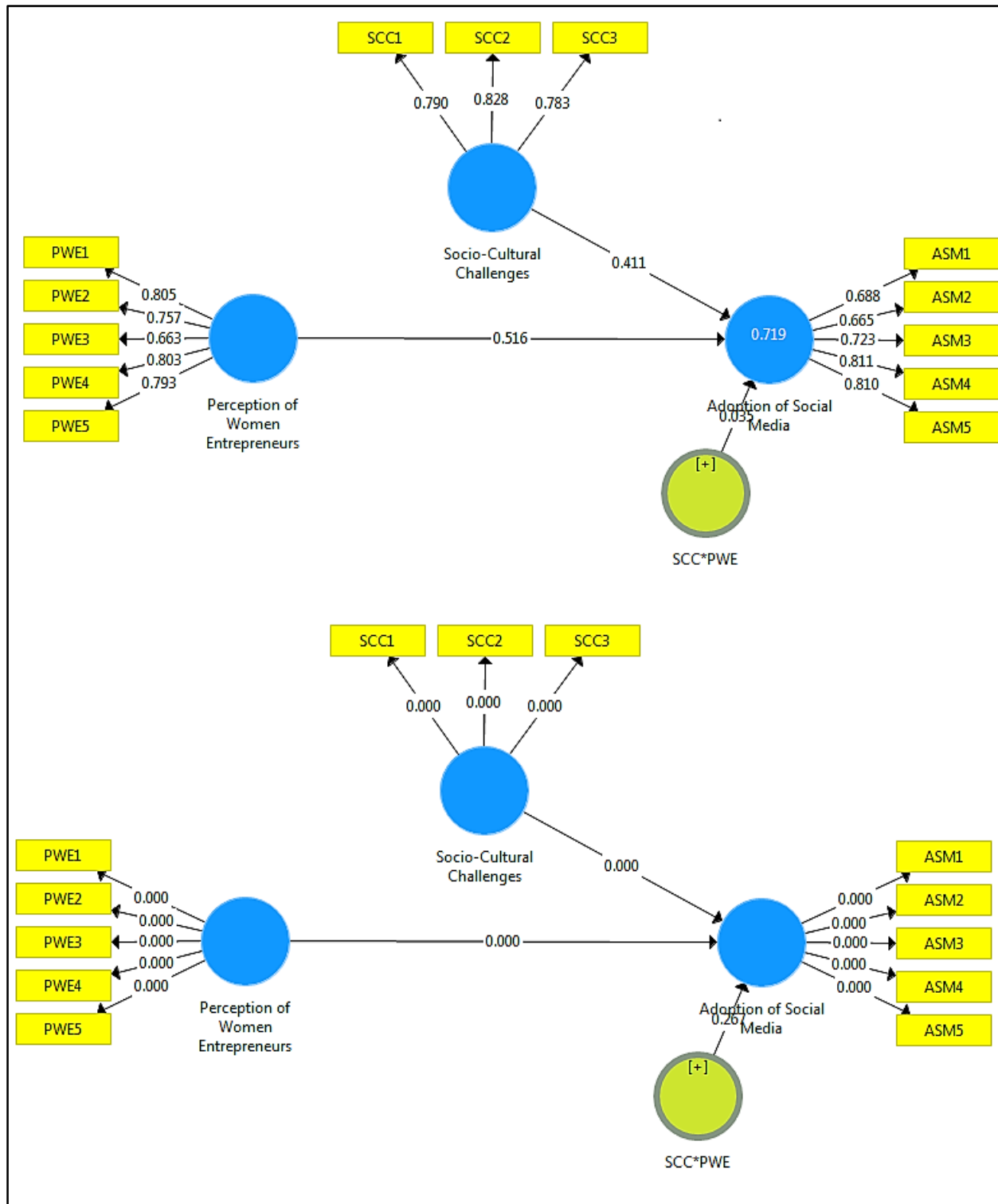


FIGURE 4
MODERATION OF SOCIO-CULTURAL CHALLENGES MODEL

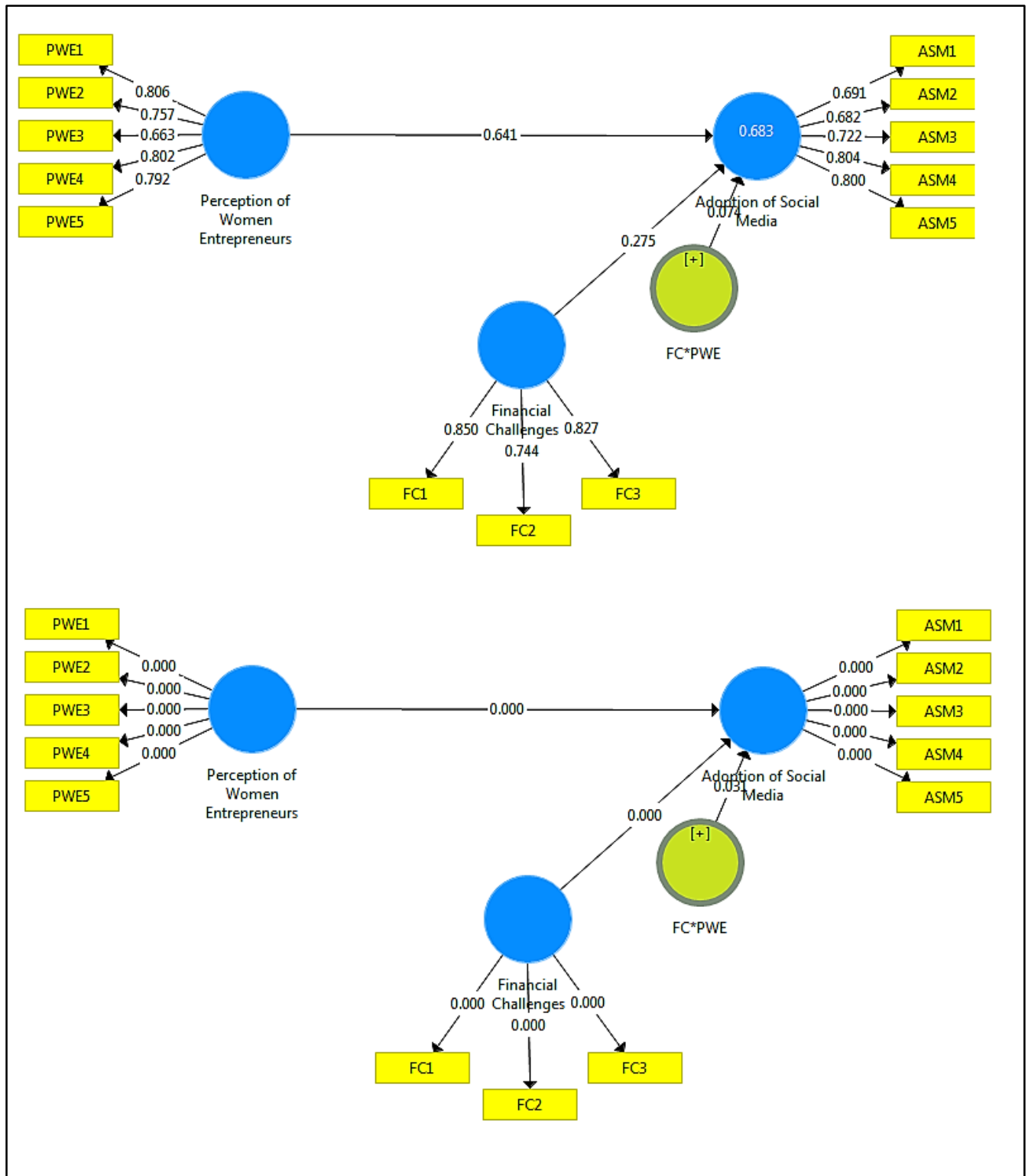


FIGURE 5
MODERATION OF FINANCIAL CHALLENGES

Questionnaire

UNDERSTANDING THE PERCEPTION OF WOMEN ENTREPRENEURS AND THEIR ADOPTION OF SOCIAL MEDIA: STRATEGIES AND CHALLENGES IN THE KINGDOM OF SAUDI ARABIA (Table 7 and Table 8)

Name:

Age:

18- 24 years

25-30 years

31-36 years

37-42 years

43 years and above

Education

Primary and Secondary

Diploma/Certification

Graduate

Masters

PhD

Table 7 PLEASE RATE YOUR RESPONSES BY ✓ THE VALUE THAT YOU THINK IS MORE APPROPRIATE				
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

Table 8 QUESTIONS					
PERCEPTION OF WOMEN ENTREPRENEURS					
Female entrepreneurs often have less relevant training and education prior to engaging in entrepreneurial activity.					
Limited social media platforms are provided to women entrepreneurs					
Difficulties in measuring the impact and effectiveness of enterprise					
Limited awareness among women entrepreneurs for effectively using social media in KSA					
Male domination in the entire business and entrepreneurship					
ADOPTION OF SOCIAL MEDIA					
Women entrepreneurship can positively prevail through the adoption of social media in KSA					
Women entrepreneurs adopt and use social media for marketing their ventures					
Women entrepreneurs in Saudi Arabia create brand recognition amongst their target audience through Social Media adoption					
Women entrepreneurs can easily connect with customers through Social Media.					
Facebook and Instagram are widely used by women entrepreneurs for promoting their products and services.					
CHALLENGES FACED BY WOMEN ENTREPRENEURS					
Socio-Cultural Challenges					

Women entrepreneurs are not getting family support.					
Conflicting gender roles					
Encounter harassments in registering and operating business					
Financial Challenges					
Difficulties in finding and building a venture team					
Very little support from management consultancy, legal consultancy, marketing, financial, enterprise planning and development					
Difficulties in finding and building a venture team					

REFERENCES

- Ahmad, S.Z. (2011). Evidence of the characteristics of women entrepreneurs in the Kingdom of Saudi Arabia. *International journal of gender and entrepreneurship*, 3(2),123-143.
- Al-Arfaj, A.A., & Solaiman, E. (2019). How Entrepreneurs Begin and Manage Home-based Businesses. In *Proceedings of the 9th International Conference on Communities and Technologies-Transforming Communities* (pp. 65-75). ACM.
- Al-Haidari, N.N. (2017). The use of social media in business by women entrepreneurs in the KSA: The case of Instagram (*Doctoral dissertation, University of Cape Town*).
- Al-Kwif, O.S., Tien Khoa, T., Ongsakul, V., & Ahmed, Z.U., 2020. Determinants of female entrepreneurship success across Saudi Arabia. *Journal of Transnational Management*, 25(1), 3-29.
- Alturki, N., & Braswell, R. (2010). *Businesswomen in Saudi Arabia: Characteristics, challenges, and aspirations in a regional context*. Retrieved from https://www.academia.edu/35892321/Businesswomen_in_Saudi_Arabia_Characteristics_Challenges_and_Aspirations_in_a_Regional_Context.
- Ameen, N.A., & Willis, R. (2016). The use of mobile phones to support women's entrepreneurship in the Arab countries. *International Journal of Gender and Entrepreneurship*, 8(4), 424-445.
- Anggadwita, G., Luturlean, B.S., Ramadani, V., & Ratten, V. (2017). Socio-cultural environments and emerging economy entrepreneurship. *Journal of Entrepreneurship in Emerging Economies*, 9(1), 85-96.
- Arab News. (2017). *Saudi female entrepreneurs increase by 35% in 10 years: Report*. Retrieved from <https://www.arabnews.com/node/1200291/saudi-arabia>
- Arabian Business. (2019). *Saudi Arabia's female workforce grows by 282% in a year*. Retrieved from <https://www.arabianbusiness.com/politics-economics/427914-women-in-workforce-in-saudi-sees-2825-increase>.
- Arabian Business. (2019a). *Opinion: Saudi women entrepreneurs are agents of change*. Retrieved from <https://www.arabianbusiness.com/startup/412833-opinion-saudi-women-entrepreneurs-are-agents-of-change>
- Aslam, S., Latif, M., & Aslam, M. (2013). Problems faced by women entrepreneurs and their impact on working efficiency of women in Pakistan. *Middle-East Journal of Scientific Research*, 18(8),1204-1215.
- Assaf, T. (2017). The Kingdom of Saudi Arabia: Status of the Entrepreneurship Ecosystem. *WAMDA: Amman, Jordan*.
- Avkiran, N., & Ringle, C. (2018). Partial least squares structural equation modeling. *Handbook of Market Research*, (Vol. 267).
- Bai, H., Sivo, S.A., Pan, W., & Fan, X. (2016). Application of a new resampling method to SEM: a comparison of S-SMART with the bootstrap. *International Journal of Research and Method in Education*, 39(2), 194-207.
- Basaffar, A.A., Niehm, L.S., & Bosselman, R. (2018). Saudi Arabian women in entrepreneurship: challenges, opportunities and potential. *Journal of Developmental Entrepreneurship*, 23(02), 1850013.
- Beninger, S., Ajjan, H., Mostafa, R.B., & Crittenden, V.L. (2016). A road to empowerment: social media use by women entrepreneurs in Egypt. *International Journal of Entrepreneurship and Small Business*, 27(2-3), 308-332.
- Caputo, A., Mehtap, S., Pellegrini, M.M., & Al-Refai, R. (2016). Supporting opportunities for female entrepreneurs in Jordan. *International Journal of Entrepreneurship and Small Business*, 27(2/3), 384-409.

- Cesaroni, F.M., Demartini, P., & Paoloni, P. (2017). Women in business and social media: Implications for female entrepreneurship in emerging countries." *African Journal of Business Management*, 11(14), 316-326.
- Dahari, Z., Abu Bakar, A.R., & Al-Gosaibi, S. (2019). Key Success Factors of Home-Based Business among Female Entrepreneur in Saudi Arabia. *Asia Pacific Journal of Business Review*, 3(2), 43-66.
- Damanhour, A.M.S. (2017). Women entrepreneurship behind the veil: Strategies and challenges in the kingdom of Saudi Arabia. *Journal of Research in Business, Economics, and Management*, 9, 1750-1762.
- Danish, A.Y., & Smith, H.L. (2012). Female entrepreneurship in Saudi Arabia: opportunities and challenges. *International Journal of Gender and Entrepreneurship*, 4(3), 216-235.
- Etikan, I., Musa, S.A., & Alkassim, R.S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, 5(1), 1-4.
- Gashi, R., & Gashi, H. (2019). Challenges of Female Entrepreneurs in Transition Countries: Case Study of Kosovo. *Prizren Social Science Journal*, 3, 67-77.
- Gavino, M.C., Williams, D.E., Jacobson, D., & Smith, I. (2019). Latino entrepreneurs and social media adoption: Personal and business social network platforms. *Management Research Review*, 42(4), 469-494.
- Genç, M., & Öksüz, B. (2015). A fact or an illusion: Effective social media usage of female entrepreneurs. *Procedia-Social and Behavioral Sciences*, 195, 293-300.
- Ghiat, B. (2014). Socio-cultural constraints of women entrepreneurs in Algeria. *Journal of Women's Entrepreneurship and Education*, 1(4), 33-46.
- Goel, S., & Rajkumar. (2018). Challenges for women entrepreneurship: A study of women entrepreneurs of small and medium enterprises in Rohtak District of Haryana. *Pacific Business Review International*, 11(2), 63-68.
- Hashmi, S. (2019). Entrepreneurship: Challenges or opportunities for women." *International Journal of Research in Social Sciences*, 9(5), 366-374.
- Huang, C.C. (2017). The impacts of brand experiences on brand loyalty: mediators of brand love and trust. *Management Decision*, 55(5), 216-235.
- Huang, G.H., Korfiatis, N. & Chang, C.T. (2018). Mobile shopping cart abandonment: The roles of conflicts, ambivalence, and hesitation. *Journal of Business Research*, 85, 165-174.
- Islam, S.I. (2014). Saudi women: Opportunities and challenges in science and technology. *Education Journal*, 3(2), 71-78.
- Jose, S. (2018). Strategic use of digital promotion strategies among Female emigrant entrepreneurs in UAE. *International Journal of Emerging Markets*, 13(6), 1699-1718.
- Kim, M.G., & Kim, J. (2010). Cross-validation of reliability, convergent and discriminant validity for the problematic online game use scale. *Computers in Human Behavior*, 26(3), 389-398.
- Kinninmont, J., & Kinninmont, J. (2017). *Vision 2030 and Saudi Arabia's Social Contract: Austerity and Transformation*. Chatham House.
- Kuikka, A., & Laukkanen, T. (2016). How Resistance to Change Affects on Brand Loyalty in Consumables Market.) In *Let's Get Engaged! Crossing the Threshold of Marketing's Engagement Era* (pp. 667-668). Springer, Cham.
- Lee, C.C., Czaja, S.J., & Schulz, R. (2010). The moderating influence of demographic characteristics, social support, and religious coping on the effectiveness of a multicomponent psychosocial caregiver intervention in three racial ethnic groups. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 65(2), 185-194.
- Liu, M., & Wronski, L. (2018). Examining completion rates in web surveys via over 25,000 real-world surveys. *Social Science Computer Review*, 36(1), 116-124.
- Mack, E.A., Marie-Pierre, L., & Redican, K. (2017). Entrepreneurs' use of internet and social media applications. *Telecommunications Policy*, 41(2), 120-139.
- Mauchi, F.N. (2014). *Challenges faced by women entrepreneurs: a case study of Mashonaland central province*.
- McPeake, J., Bateson, M., & O'Neill, A., (2014). Electronic surveys: how to maximise success. *Nurse researcher*, 21(3), 24-26.
- Minkus-McKenna, D. (2009). Women entrepreneurs in Riyadh, Saudi Arabia. *University of Maryland University College (UMUC) Working Paper Series*, 2.
- Moses, C., Olokundun, A.M., Falola, H.O., Ibidunni, A.S., Amaihian, A.B., & Inelo, F. (2016). A review of the challenges militating against women entrepreneurship in developing nations. *Mediterranean Journal of Social Sciences*, 7(1), 64-69.
- Moshashai, D., Leber, A.M. & Savage, J.D. (2018). Saudi Arabia plans for its economic future: Vision 2030, the National Transformation Plan and Saudi fiscal reform. *British Journal of Middle Eastern Studies*, 47(3), pp.381-401.

- Naguib, R., & Jamali, D. (2015). Female entrepreneurship in the UAE: A multi-level integrative lens. *Gender in Management: An International Journal*, 30(2), 135-161.
- Panda, S. (2018). Constraints faced by women entrepreneurs in developing countries: review and ranking. *Gender in Management: An International Journal*, 33(4), 315-331.
- Paoloni, P., Secundo, G., Ndou, V., & Modaffari, G. (2018). Women entrepreneurship and digital technologies: Towards a research agenda. In *IPAZIA Workshop on Gender Issues* (pp. 181-194). Springer, Cham.
- Paul, J., & Shrivatava, A. (2016). Do young managers in a developing country have stronger entrepreneurial intentions? Theory and debate. *International Business Review*, 25(6), 1197-1210.
- Raghuvanshi, J., Agrawal, R., & Ghosh, P.K. (2017). Analysis of barriers to women entrepreneurship: The DEMATEL approach. *The Journal of Entrepreneurship*, 26(2), 220-238.
- Rai, N., & Sijariya, R. (2020). Use of Social Media for Women Entrepreneurship (With Special Reference to Bhopal). *International Journal of Risk and Contingency Management (IJRCM)*, 9(1), 20-28.
- Sadi, M.A., & Al-Ghazali, B.M. (2010). Doing business with impudence: A focus on women entrepreneurship in Saudi Arabia. *African Journal of Business Management*, 4(1), 50-71.
- Saleh, A., & Bista, K. (2017). Examining factors impacting online survey response rates in educational research: Perceptions of graduate students. *Online Submission*, 13(2), 63-74.
- Samara, A., Nistrup, A., Al-Rammah, T.Y., & Aro, A.R. (2015). Lack of facilities rather than sociocultural factors as the primary barrier to physical activity among female Saudi university students. *International journal of women's health*, 7, 279-286.
- Sangolagi, K., & Alagawadi, M., (2016). Women Entrepreneurs. *International Journal of Advancement in Engineering Technology, Management and Applied Science*, 3(1), 43-54.
- Sarkar, M. (2017). Women entrepreneurship: As a career option in India. *Jamshedpur Research Review*, 67.
- Saudi Gazette. (2018). *Saudi women entrepreneurs share expertise in innovation*. Retrieved from <http://saudigazette.com.sa/article/551027>
- Taherdoost, H. (2016). Sampling methods in research methodology; how to choose a sampling technique for research. *International Journal of Academic Research in Management*, 5(2), 18-27.
- Tenenhaus, M. (2008). Component-based structural equation modelling." *Total quality management*, 19(7-8), 871-886.
- Thieu, Q.K., Das, A.K., & Nguyen, Q.T. (2017). A review of challenges in women's entrepreneurship: A context of ethnic minority in Vietnam. In *United States Association for Small Business and Entrepreneurship. Conference Proceedings*, 912-930.
- Thompson, B. (2004). Exploratory and confirmatory factor analysis: Understanding concepts and applications. *Washington, DC*, International Standard Book Number: 1-59147-093-5.
- Ul-Hameed, W., Shabbir, M., Imran, M., Raza, A., & Salman, R. (2019). Remedies of low performance among Pakistani e-logistic companies: The role of firm's IT capability and information communication technology (ICT). *Uncertain Supply Chain Management*, 7(2), 369-380.
- Yu-TeTu, Y.T. and Hsu, T.K. (2013). The impact of brand image and customer commitment on loyalty: An empirical study of automobile sector. *Information Management and Business Review*, 5(4), 181-193.
- Zhang, D. (2017). A coefficient of determination for generalized linear models. *The American Statistician*, 71(4), 310-316.