Migration Letters

Volume: 21, No: S2(2024), pp. 520-538

ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online) www.migrationletters.com

The Role of Vision 2030 in Supporting Saudi Women to Participate in Marketing Activities in the Kingdom of Saudi Arabia

Dr. Mahmoud Abdel Muhsen Irsheid Alafeef¹

Abstract

This study investigates the role of vision 2030 in supporting Saudi women to participate in marketing activities in the kingdom of Saudi Arabia. Vision 2030 is a strategic plan introduced by the Saudi Arabian government to promote economic and social development in the country, with a focus on empowering and including women in various sectors. Drawing on a sample of Saudi women in the marketing sector, data was collected through self-administered questionnaires from 300 respondents. Partial laest square structural equation modelling (PLS-SEM) was employed to analyze the relationships and mediating effect. The results demonstrate that Vision 2030 implementation and the level of awareness and understanding of Vision 2030 have a significant and positive impact on the availability of opportunities and support for Saudi women in marketing activities. Additionally, the availability of opportunities and support significantly mediates the relationship between Vision 2030 implementation, awareness, and participation in marketing activities for Saudi women. These findings highlight the importance of creating a supportive environment and providing targeted opportunities and support to enhance women's participation in the marketing sector, aligning with the goals of Vision 2030. This study contributes to the literature on gender inclusivity and economic development and provides insights for policymakers, organizations, and stakeholders aiming to promote women's participation in marketing activities in Saudi Arabia.

Keywords: Marketing Activities, PLS-SEM, Saudi Arabia, Vision 2030.

Introduction

Saudi Arabia's Vision 2030 is a strategic plan aimed at transforming the country's economy and society by diversifying the economy and empowering women in the workforce. The strategy calls for a number of steps to build human capital, including expanding job possibilities, strengthening the work environment to achieve gender equality, and boosting education and training programs (Rahman & Al-Borie, 2021). A change from a resource-based economy to a knowledge-based economy is necessary for the Kingdom's economic transformation under Vision 2030, with a focus on important areas like health, education, tourism, and finance (Al-Faris, 2019). Increasing the proportion of women in the workforce from 22% to 30% is one of the key goals of Saudi Vision 2030. Despite its cultural and societal issues, the Kingdom has made great strides in advancing women's rights and giving them the tools, they need to participate more fully in society and the economy. The creation of women-only industrial zones, the relaxing of clothing requirements, and the adoption of new laws to safeguard women's rights at work are just a few of the measures that have been launched to boost women's

_

¹ Assistant Professor, Marketing Department-Al Baha University, Saudi Arabia

involvement in the workforce (Mitchell & Alfuraih, 2018). However, despite these initiatives, Saudi Arabian women still only participate in a small number of marketingrelated tasks (Ahmed, 2020). In order to promote goods and services and spur economic progress, marketing is a critical corporate function (Alkhawaldeh, Mahmood, & Alkhawaldeh, 2021; Alkhawaldeh, et al., 2022). Saudi women must participate in marketing as a significant sector as part of Vision 2030's growing emphasis on diversifying the economy in order to meet the goals of the plan. However, a major obstacle to meeting the plan's objectives is the underrepresentation of women in marketing activities (Aldossari, 2020). Several issues, such as cultural and societal standards, a lack of training and development opportunities, and gender prejudices in the workplace, can be blamed for the low participation of women in marketing activities in Saudi Arabia (Alreshoodi et al., 2022). Identifying and removing these obstacles is crucial for achieving Vision 2030's goals, as is giving women the chance to engage in marketing-related activities. The Kingdom can achieve sustainable economic growth, generate new job opportunities, and advance gender equality in the workforce by empowering women in marketing. As the government works to empower women and expand their involvement in the economy, the number of women participating in the job market in Saudi Arabia has grown dramatically over time (Almathami, et al., 2022). Women still only make up a small portion of marketing activity, despite these efforts. The objectives of Vision 2030, which include diversifying the economy and raising the participation of women in the workforce, are hampered by this serious issue. There is a need to explore these elements in order to discover strategies that can boost the engagement of Saudi women in marketing activities because these factors are intricately linked and complex. The lack of work possibilities, social and cultural barriers, and restricted access to education and training are some of the factors that prevent women from participating in the labor market, according to previous studies (Choudhry et al., 2019; Hutchings et al., 2020). Women's participation in marketing activities is likely to be impacted by these aspects as well. Studies have also indicated that women in marketing occupations face obstacles such gender discrimination, a lack of role models, and problems juggling work and family obligations. These difficulties can restrict women's involvement in marketing initiatives even more and prevent them from advancing in their careers. Thus, the study's objective is to determine how Vision 2030 supports Saudi women's participation in marketing activities throughout the Saudi Arabian Kingdom. For a number of reasons, the study on how Vision 2030 supports Saudi women participating in marketing activities in the Kingdom of Saudi Arabia is innovative. First, it targets the empowerment and inclusion of women in the workforce, two key components of the Vision 2030 plan. This study specializes in the marketing sector, which is crucial to the Kingdom's plan for economic diversification. Achieving the goals of Vision 2030 depends on knowing the elements that affect women's engagement in marketing activities. Second, the study is important because it clarifies the obstacles and opportunities Saudi women have in engaging in marketing-related activities. Policymakers and organizations can utilize this data to create focused interventions that encourage women to participate in marketing activities. The study offers insights that can be applied to the development of policies that address the underlying hurdles by examining the elements that either encourage or hinder women's participation. Last but not least, the study is important because it sheds light on how marketing influences economic growth and diversification. The Kingdom can access a sizable talent and knowledge pool that can foster innovation and industrial growth by expanding the participation of women in marketing activities. This may eventually result in the establishment of additional employment opportunities and higher economic output, both of which are necessary for accomplishing the objectives of Vision 2030.

Literature Review

Overview of Vision 2030 and Its Goals

The long-term strategic plan Vision 2030 of Saudi Arabia aspires to restructure the nation's economy and society as well as raise the standard of living for its people. Crown Prince Mohammad bin Salman unveiled the plan in April 2016, and it is built on three primary pillars: a strong economy, a dynamic culture, and an aspirational country (Al-Maghrabi, 2018). The lofty and far-reaching goals of Vision 2030 call for substantial efforts and financial investments from both the public and commercial sectors. Reducing the nation's reliance on oil earnings and diversifying the economy are two of Vision 2030's main goals. The plan aims to stimulate innovation and entrepreneurship while developing new industries like tourism, healthcare, education, and finance. The aim is to expand employment prospects while lowering the reliance of the nation on foreign labor (Al-Ghamdi & Al-Juhani, 2019). The goal of Vision 2030 is to raise the involvement of women in the workforce from 22% to 30% while also recognizing the value of human capital development. For sustainable development, poverty reduction, and gender equality to occur, women must participate in the workforce (Algahtani, 2018). The strategy recognizes that women's potential is underutilized and that empowering women is a top goal for the country. In the sphere of marketing, the contribution of women to the workforce is crucial. Marketing is an essential company function that promotes goods and services, stimulates economic growth, and opens up job prospects. Despite the fact that there are more and more women engaged in the job market, women's participation in marketing activities in Saudi Arabia is still very low. The objectives of Vision 2030 cannot be achieved with such low participation, which need more research. Cultural and societal conventions, lack of access to training and education, and a lack of work prospects are just a few of the many obstacles that prevent women from participating in marketing activities in Saudi Arabia. As it restricts women's interactions with male clients and coworkers and makes it challenging for them to join business meetings and activities, gender segregation poses a significant challenge in Saudi Arabia (Al-Harthy, 2021). The empowerment of women and gender equality in Saudi Arabia have been the subject of prior research, which has uncovered both opportunities and obstacles. According to the study, even though the nation has made great strides in advancing women's rights and raising their involvement in the workforce, there are still big obstacles to overcome. The lack of legal safeguards for women, cultural and societal norms that restrict women's mobility and participation in public life, and the requirement for more assistance and resources for female entrepreneurs and business owners are some of these obstacles (Al-Khunaizi & Al-Dosari, 2019). Finally, Saudi Arabia's Vision 2030 is a thorough strategy that intends to alter the nation's society and economy while advancing sustainable development. The strategy intends to expand the participation of women in the workforce and advance gender equality while also recognizing the significance of human capital development. The aims of Vision 2030 are hampered by the low engagement of Saudi women in marketing activities, which calls for more research. Cultural and societal standards, lack of access to training and education, and a lack of suitable employment possibilities are just a few of the many obstacles that prevent women from participating in marketing activities. Previous research has highlighted a number of obstacles to women's empowerment and gender equality in Saudi Arabia as well as opportunities, and these findings can guide efforts to expand women's engagement in marketing activities and meet the objectives of Vision 2030.

Marketing Activities and The Role of Women in Saudi Arabia

Saudi Arabia's marketing industry has experienced substantial growth and expansion in recent years, and there is now a higher need than ever for qualified marketing specialists. Even while women make up a sizable share of the workforce in the nation, their representation in marketing activities is still rather low. Any business's growth and development depend heavily on marketing, and Saudi Arabia is no exception. The

government's initiatives to diversify the economy and lessen its reliance on oil revenues have fueled the Kingdom's marketing sector's strong recent growth. Advertising, sales, public relations, branding, and other areas are all included in Saudi Arabia's marketing sector. Thousands of individuals have work prospects thanks to the sector, which makes a substantial contribution to the national economy. Despite the rising demand for marketing specialists, Saudi Arabian women's engagement in the industry is still relatively low. According to a survey by Alshmrani and Althobaiti (2021), women make up only 27% of marketing professionals in the Kingdom, which is a low representation rate. Only 15% of marketing managers are women, according to the report, which also showed that women are underrepresented in marketing leadership roles. These results imply that there are obstacles preventing women from working in Saudi Arabia's marketing industry. Cultural and societal traditions in Saudi Arabia are a major obstacle to women's engagement in marketing operations. The patriarchal society of the Kingdom usually assigns genderspecific roles, with males serving as the main breadwinners and women being expected to concentrate on household duties. There is a perception that some marketing roles are unsuitable for women due to cultural and societal conventions. Women may experience bias and discrimination during compensation negotiations, promotions, and hiring processes, which prevents them from moving up the marketing ladder. Lack of flexible work options is another obstacle to women participating in marketing activities. The workday in Saudi Arabia is typically organized around prayer periods, with businesses closing during certain times. This framework restricts the options for flexible work arrangements that can help women combine work and family obligations, such as parttime work, job sharing, or working from home. Accessing networking opportunities and mentorship programs, which are crucial for job development and progress, may also be difficult for women. Women may have fewer options for mentoring and career counseling due to the underrepresentation of women in positions of leadership in the marketing industry. In conclusion, Saudi Arabia's marketing industry has a variety of options for employment and economic development. However, the absence of flexible work arrangements, cultural and social conventions, and limited access to networking and mentorship opportunities all contribute to the low level of participation among women in marketing activities. In order to advance gender equality and women's empowerment as part of Vision 2030, women's engagement in the marketing industry must rise.

Barriers to Women's Participation in Marketing Activities

In Saudi Arabia, the low participation of women in marketing activities is a complex issue that is influenced by a number of factors, including cultural and social norms, a lack of supportive laws and regulations, and restricted access to education and training opportunities (Almujadidi, et al., 2022). These obstacles are congruent with the more general difficulties women's workforce involvement in Saudi Arabia faces, which is frequently constrained by conservative cultural norms and societal attitudes. Women in Saudi Arabia face significant obstacles to participating in marketing activities due to cultural and societal conventions (Almathami et al., 2022). It can be difficult for women to obtain adequate work possibilities in marketing because of the society's conservatism. Women encounter major obstacles when engaging with males at work, especially in professions like marketing that demand a lot of social engagement. Additionally, women frequently have limited mobility, which restricts their access to employment possibilities across the nation. Women's engagement in marketing activities is significantly hampered by the absence of gender-segregated workspaces (Khan, 2020). The absence of laws and policies that support gender equality and women's empowerment is a key impediment to women's engagement in marketing activities in Saudi Arabia. Historically, the nation has lacked thorough legal systems that defend women's rights in the workplace. While recent Vision 2030 reforms have started to address this problem, progress is still being made very slowly (Aljohani, 2023). To encourage women to participate in marketing activities, policies and regulations that address concerns like equal pay, workplace harassment, and maternity leave are required. In order to increase women's involvement in marketing activities in Saudi Arabia, education and training possibilities are also essential (Grand & Wolff, 2020). Due to the government's enormous investment in educational and training initiatives, women's access to education has significantly improved recently. Nevertheless, it is still quite difficult for women to pursue further education, especially in historically male-dominated sectors like marketing. In the marketing industry, there is also a sizable skills gap between male and female employees, which may restrict women's possibilities for career advancement. Numerous studies have looked into Saudi Arabia's chances and barriers for gender equality and women's empowerment. Al-Sharqi and Koura (2019), for instance, examined the elements that influence women's employment in the Kingdom and emphasized the need for more accommodating laws and regulations to encourage women's participation in the workforce. According to other research (Al-Hassan & Al-Dabbagh, 2020), education can empower women and increase their involvement in the labor force. These studies emphasize the need for comprehensive rules and regulations that support gender equality and women's empowerment as well as the significance of tackling the social and cultural barriers that prevent women from participating fully in the workforce. The literature analysis concludes by highlighting the significance of Saudi Arabia's Vision 2030 in advancing women's empowerment and gender equality. Despite the fact that the plan acknowledges the crucial role that human capital development plays in attaining sustainable development, women's involvement in marketing activities is still relatively low. Achieving the objectives of Vision 2030 will require addressing the social and cultural obstacles that prevent women from participating in the workforce, putting supportive laws and policies in place, and ensuring that opportunities for education and training are available. The Kingdom may diversify its economy, foster sustainable growth, and advance gender equality by encouraging women to participate in marketing activities.

Hypothesis Development

Vision 2030 is an ambitious strategic plan launched by the Saudi Arabian government in 2016 with the goal of transforming the country's economy and society. It aims to reduce the country's dependence on oil revenues, diversify the economy, and enhance social development. One of the key pillars of Vision 2030 is the empowerment and inclusion of women in various sectors, recognizing their significant potential and contributions to the economy. The strategic plan highlights the importance of creating equal opportunities for women in the workforce and encouraging their active participation in decision-making processes. In the context of marketing activities, Vision 2030 emphasizes the need to promote women's involvement in this sector, recognizing the value they bring in terms of creativity, insights, and market understanding. The implementation of Vision 2030 is expected to have a positive impact on the participation of Saudi women in marketing activities. By addressing barriers and promoting gender equality, Vision 2030 creates an environment that encourages and supports women's active engagement in the marketing sector. This can lead to increased representation of women in marketing roles, improved career opportunities, and enhanced overall contribution to the sector's growth. Several recent studies have explored the relationship between Vision 2030 and women's participation in various sectors. For example, a study by Alhareth and Alhammad (2021) examined the impact of Vision 2030 on women's empowerment in the Saudi labor market. They found that Vision 2030 has contributed to positive changes in promoting women's participation and empowering them in the workforce. Furthermore, a study by Al-Dajani and Marlow (2020) focused on the role of Vision 2030 in promoting women's entrepreneurship in Saudi Arabia. They highlighted the significance of Vision 2030's emphasis on women's inclusion and empowerment as a catalyst for entrepreneurial activities among Saudi women. These studies, among others, provide evidence for the potential positive impact of Vision 2030 on the participation of Saudi women in various sectors, including marketing. By creating a supportive environment and equal opportunities, Vision 2030 can pave the way for increased representation and active

525 The Role of Vision 2030 in Supporting Saudi Women to Participate in Marketing Activities in the Kingdom of Saudi Arabia

involvement of Saudi women in marketing activities. Based on the above evidences, the study developed the following hypothesis:

H1: There is a positive relationship between Vision 2030 implementation and the participation of Saudi women in marketing activities.

The successful implementation of Vision 2030 in Saudi Arabia necessitates a high level of awareness and understanding among the target population, including Saudi women. Vision 2030 is a comprehensive strategic plan that outlines the country's goals and aspirations for economic and social development. It emphasizes the empowerment and inclusion of women in various sectors, including marketing. Thus, it is crucial for Saudi women to be aware of and comprehend the objectives and opportunities presented by Vision 2030. It is hypothesized that there exists a positive relationship between the level of awareness and understanding of Vision 2030 and the participation of Saudi women in marketing activities. Women who possess a greater awareness and understanding of Vision 2030 are more likely to recognize the importance of their active involvement in the marketing sector and the benefits it can bring. This awareness can drive their motivation to pursue opportunities in marketing, seek relevant education and training, and actively engage in marketing activities. Recent studies support this hypothesis, highlighting the significance of awareness and understanding in influencing women's participation in various sectors. For example, a study by Al-Ghafri et al. (2021) explored the impact of Vision 2030 on women's participation in the workforce in Oman. They found that women who had a higher awareness of Vision 2030 were more likely to pursue employment and contribute to the economy. Furthermore, a study by Al-Saedi and Alshamsi (2020) focused on the role of awareness and understanding of Vision 2030 among Emirati women. They found that women with a better understanding of Vision 2030 were more likely to actively participate in various sectors, including entrepreneurship and leadership roles. These studies provide empirical evidence supporting the hypothesis that there is a positive relationship between the level of awareness and understanding of Vision 2030 and the participation of Saudi women in marketing activities. Enhancing awareness and understanding of Vision 2030 among Saudi women can serve as a catalyst for their active involvement and contribution to the marketing sector. Therefore, the study developed the following hypothesis:

H2: The level of awareness and understanding of Vision 2030 positively influences the participation of Saudi women in marketing activities.

The implementation of Vision 2030 in Saudi Arabia has brought about significant changes and reforms aimed at empowering women and promoting their participation in various sectors, including marketing. This study aims to explore the effect of Vision 2030 implementation and the level of awareness and understanding of Vision 2030 on the availability of opportunities and support for Saudi women in marketing activities. It is hypothesized that as Vision 2030 is effectively implemented, and as Saudi women become more aware and knowledgeable about its objectives and initiatives, there will be a positive impact on the availability of opportunities and support specifically targeted towards women in the marketing sector. This suggests that Vision 2030's influence on women's participation in marketing activities will be mediated by the availability of these opportunities and support. Recent studies have emphasized the importance of Vision 2030 in promoting gender equality and women's empowerment in Saudi Arabia (Al-Ahmadi et al., 2021; Alhassan et al., 2021). These studies have highlighted the role of Vision 2030 in creating an enabling environment for women's participation in various fields. Moreover, research has indicated that increased awareness and understanding of Vision 2030 among women can enhance their engagement in economic and social activities (Algahtani et al., 2020; Alharbi et al., 2021). The availability of opportunities and support specifically targeted towards women in the marketing sector can include initiatives such as training programs, mentorship opportunities, networking events, and policies promoting gender diversity in the workplace. These factors contribute to creating a conducive environment for Saudi women to actively participate and excel in marketing activities. Consequently, this study developed the following hypothesis:

H3: The Vision 2030 implementation, level of awareness and understanding of vision 2030 positively influence the availability of opportunities and support for Saudi women in marketing activities

Vision 2030, a strategic plan introduced by the Saudi Arabian government, aims to foster an environment that supports women's participation and empowerment in diverse fields, including marketing. It recognizes the potential of women as key contributors to the country's economic growth and development. It is hypothesized that the availability of opportunities and support specifically tailored for Saudi women in the marketing sector will mediate the relationship between Vision 2030 implementation and their participation. These opportunities may include educational and training programs, mentorship initiatives, networking platforms, and financial resources specifically designed to empower Saudi women in the marketing field. The presence of such opportunities and support systems will enable women to overcome barriers, gain confidence, acquire necessary skills, and seize marketing-related opportunities in line with Vision 2030's objectives. Recent studies have shed light on the significance of targeted opportunities and support in promoting women's participation in various sectors. For instance, a study by Al-Sabbagh and Abdul-Kader (2020) investigated the role of support programs in enhancing women's entrepreneurship in Saudi Arabia. They found that targeted support initiatives were vital in enabling women to navigate challenges and engage in entrepreneurial activities effectively. Another study by Al-Hindi et al. (2021) explored the impact of support programs on women's participation in the workforce in Saudi Arabia. They highlighted the importance of tailored support services in enhancing women's employment prospects and promoting their active involvement in the labor market. Hence, the study developed the following hypothesis:

H4: The availability of opportunities and support for Saudi women in marketing activities mediates the relationship between Vision 2030 implementation, level of awareness and understanding of vision 2030 and participation for Saudi women in marketing activities.

Research Model

Research hypotheses enabled the development of the conceptual research model depicted in Fig. 1. This study aims to provide a more comprehensive understanding of the Role of Vision 2030 in Supporting Saudi Women to Participate in Marketing Activities in the Kingdom of Saudi Arabia.

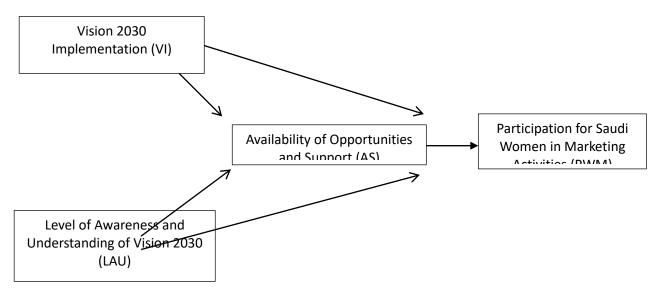


Fig 1 Research Model

Research Methodology

The research design for this study was a cross-sectional survey design. The survey used to gather data on the factors that influence Saudi women's participation in marketing activities, the challenges they face, and the opportunities that exist to increase their participation and their experiences within the industry. The survey design allows for the collection of data from a large sample of participants in a relatively short amount of time (Alkhawaldeh, et al., 2023). The survey administered online to ensure that it is accessible to a wide range of participants. The study targets Saudi women who are currently employed in marketing positions or have an interest in pursuing a career in marketing. A convenience sampling technique was used for the study. The sample size for this study determined using a power analysis to ensure that it is sufficient to detect meaningful differences in the data. The data was collected from 300 respondents. The items of the questionnaire were adopted and modified from the previous studies of Alharbi, (2022), Almathami, et al., (2022), and El-Bakr, (2022). In addition, the questionnaire uses a fivepoint Likert scale. The collected data was analyzed using PLS-SEM. The analysis involves assessing the measurement model's reliability and validity, evaluating the structural model's path coefficients and significance levels, and conducting mediation analysis.

Results and Discussion

It is crucial to perform data screening and cleaning before beginning any dataset analysis (Pallant, 2010). The accuracy of the data collected is crucial for the interpretation of the survey responses because even a small number of inaccurate answers can considerably skew the results. Data accuracy is a complex issue with many potential sources of mistake. These elements have an impact on the relationships between two additional outcome variables. This indicates that these tasks must be planned for and completed prior to the actual data analysis (Hair, 2010). Unintended repercussions that aren't immediately apparent are found when data is examined (Hair, 2010). After gathering the data, the next step was to enter it and use SPSS to look for missing values. To guarantee that the results were accurate and reliable, all of the questionnaires that the study's participants completed were entered and their accuracy and completeness were verified. Hair et al. (2016) claim that these steps were necessary in order to accurately understand

the study's findings. In a similar vein, the accuracy and error-freeness of each data entry were verified. Furthermore, no missing values were found in the data. Because of this, the researcher can believe the information and apply it in the analysis. Based on this study, the respondents were asked to indicate their marital status, age, family income, highest qualifications, and job title. Below are the tables showing how the 300 respondents are distributed according to the selected demographic characteristics. Table 1 shows the marital status of the respondents in this study. Of the 300 respondents, the majority of them were not married (196), making up 65.3% of the total, while the remaining 104 (34.7%) were Married. More so, the socio-demographic characteristics result further revealed the respondents' age distribution. It indicated that most of the respondents (177), or 59%, were between the ages of 21-30. Similarly, 119 (39.7%) of them were between the ages of 31 and above, while 4 (1.3%) were between the ages of 20 and below. In addition, the result of the study on the respondents' distribution according to job title further revealed that 148 (38.4%) of the respondents were Self Employed/Business, 91 (30.3%) respondents were Teachers, while the remaining 61 (20.3%) of the respondents were retired. The result on the respondents' qualifications revealed that of the 300 valid responses obtained, the majority (115), or 38.3%, were enrolled in degree programs, while another 72 (24%) were completing their Master's degree, and 64 (21.3%) were enrolled in Ph.D. Those enrolled in Diploma constituted 49 (16.3%) of the total responses obtained. The result of the study on the respondents' distribution according to family income further revealed that 77 (25.7%) of the respondents gaining between 10001-12000, 71 (23.7%) respondents gaining between 8000 and below, while those gaining between 12001-14000 were 57 (19.0%). Additionally, 31 respondents (10.3%) gaining 14000 and above

Table 1. Respondent's Demographics

	Frequency	Percent
Marital Status		
Married	104	34.7
Not Married	196	65.3
Age		
Below 20	4	1.3
21-30	177	59.0
31 and above	119	39.7
Family Income		
Below 8000	71	23.7
8001 - 10000	64	21.3
10001 -12000	77	25.7
12001 - 14000	57	19.0
14000 and above	31	10.3
Highest Qualification		
Diploma	49	16.3
Degree	115	38.3
Masters	72	24.0

PhD	64	21.3
Job Title		
Teacher	91	30.3
Self Employed/Business	148	38.4
Retired	61	20.3

Measurement Model

This section focuses on the statistical assessment of the study model's reliability, validity, and potential biases. The reliability of the latent variables, which are derived from observable variables, was assessed using two coefficients: Composite Reliability (CR) and Cronbach's Alpha (CA). A value of 0.7 or higher indicates good reliability. Strong reliability was observed in Table 1, with CA values exceeding 0.7 and CR values above 0.7, in line with Cheung et al.'s (2023) findings. Convergent validity, which evaluates the precision and validity of the constructs, was assessed using factor loadings. Factor loadings above 0.50 were considered indicative of decent convergent validity. The results, presented in the table, demonstrated that all factor loadings surpassed the 0.5 threshold, indicating strong convergent validity. This aligns with Sarstedt et al.'s (2022) suggestion that factor loadings exceeding 0.5 indicate robust convergent validity. Table 2 also presents the Average Variance Extracted (AVE) values for each construct. According to Sarstedt et al. (2022), AVE values greater than 0.5 indicate acceptable convergent validity. In this study, all constructs exhibited AVE values exceeding 0.5, further confirming their strong convergent validity.

Table 2 Measurements Model

Table 2 Measurements Woder					
	Factor Loading	CA	CR (rho_a)	CR (rho_c)	AVE
Availability of Opportunities and Support		0.846	0.851	0.898	0.689
AS1	0.873				
AS2	0.899				
AS3	0.731				
AS4	0.806				
Level of Awareness and Understanding of Vision 2030 (LAU)		0.844	0.858	0.896	0.683
LAU1	0.739				
LAU2	0.899				
LAU3	0.861				
LAU4	0.799				
Participation for Saudi Women in Marketing Activities		0.867	0.869	0.900	0.600
PWM1	0.784				
PWM2	0.778				
PWM3	0.812				

PWM4	0.769				
PWM5	0.776				
PWM6	0.727				
Vision 2030 Implementation		0.875	0.878	0.906	0.616
VI1	0.780				
VI2	0.837				
VI3	0.819				
VI4	0.764				
VI5	0.735				
VI6	0.768				

The Average Variance Extracted (AVE) square root for each latent variable is compared to other correlation values among any other constructs to determine the discriminant validity (Rasoolimanesh, 2022). Table 3 showed that the off-diagonal correlations were smaller than the square roots of the AVE values, demonstrating the study's discriminant validity.

Table 3 The Fornell and Lacker Discriminant Validity

	AS	LAU	PWM	VI
AS	0.830			
LAU	0.513	0.827		
PWM	0.547	0.645	0.775	
VI	0.675	0.553	0.535	0.785

Structural Model Assessment

The findings in Table 4 and Fig. 2, reveal that Vision 2030 Implementation (VI) has significant and positive effect on Participation for Saudi Women in Marketing Activities (PWM). The result indicated that 1% increase in VI would lead to 19.2%% increase PWM. Additionally, the findings demonstrate that Level of Awareness and Understanding of Vision 2030 (LAU) has significant and positive effect on Participation for Saudi Women in Marketing Activities (PWM). The result indicated that 1% increase in LAU would lead to 37.5% increase in PWM. Furthermore, the findings demonstrate that Vision 2030 Implementation (VI) have significant and positive effect on Availability of Opportunities and Support (AS). The result indicated that 1% increase in VI would lead to 60.7% increase in AS. Similarly, reveal that Level of Awareness and Understanding of Vision 2030 (LAU) has significant and positive effect on Availability of Opportunities and Support (AS). The result indicated that 1% increase in LAU would lead to 31.3% increase in PWM. Moreover, the outcome shows that Availability of Opportunities and Support (AS) has significant and positive effect on Participation for Saudi Women in Marketing Activities (PWM). The result indicated that 1% increase in AS would lead to 37.0 % increase in PWM. Hence, these results supported the research hypotheses.

Table 4 Path Analysis Result

	Beta	STDEV	T-statistics	P- values	Decision
VI -> PWM	0.192	0.075	2.566	0.010	Supported
LAU -> PWM	0.375	0.055	6.767	0.000	Supported

VI -> AS	0.607	0.069	8.772	0.000	Supported
LAU -> AS	0.313	0.077	4.076	0.000	Supported
AS -> PWM	0.370	0.068	5.449	0.000	Supported

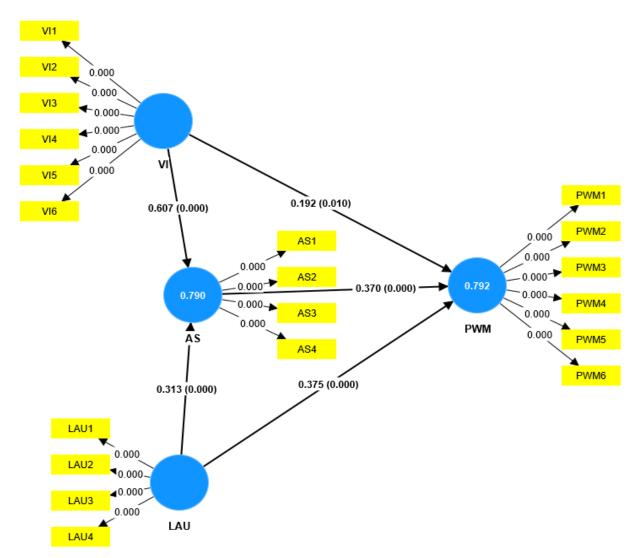


Fig 2 Path Analysis

Mediation Analysis

This study follows the recommendations made by Preacher and Hayes (2004, 2008) in order to test the mediating link. Using the bootstrapping method, the mediating link was seen through the indirect impact. Furthermore, Preacher and Hayes (2008) report that the 95% boot confidence interval (CI: LL-UL) for the indirect impact does not cross a "0" between the variables. The outcomes of the mediating hypothesis are shown in Table 5. The indirect effect (LAU ->AS-> PWM=0.116, t-value=3.187) was significant at p< 0.05 according to Table 5's bootstrap results. The fact that the indirect impact, 95% Boot CI: (LL= 0.053, UL= 0.198), does not straddle a 0 in between, which provided support for mediating effect, led the researcher to further confirm that there is a mediation. Additionally, Table 5's bootstrap results demonstrated that the indirect impact (VI ->AS-> PWM, = 0.225, t-value=4.767) was significant at p<0.05. The indirect impact, 95% Boot CI: (LL= 0.143, UL= 0.325), does not straddle a 0 in between, which suggested evidence for mediating effect, and the researcher also validated that there is a mediation. Thus, the

researcher can draw the conclusion that availability of opportunities and support for Saudi women in marketing activities mediates the relationship between Vision 2030 implementation, level of awareness and understanding of vision 2030 and participation for Saudi women in marketing activities

Table 5 Mediation Results

	Beta	STDEV	T-statistics	P- values	Decision
LAU ->AS-> PWM	0.116	0.036	3.187	0.001	Supported
VI ->AS-> PWM	0.225	0.047	4.767	0.000	Supported

Discussion

The results of the analysis indicate a significant and positive relationship between Vision 2030 implementation (VI) and the participation of Saudi women in marketing activities (PWM). This finding suggests that the successful implementation of Vision 2030 plays a crucial role in promoting and facilitating the engagement of Saudi women in marketingrelated endeavors. The positive effect observed highlights the impact of Vision 2030's initiatives and policies in creating an enabling environment for women's active involvement in the marketing sector. This finding aligns with previous studies that have emphasized the importance of Vision 2030 in driving women's empowerment and economic participation in Saudi Arabia (Alamri et al., 2022; Alghamdi et al., 2021). The results provide empirical evidence supporting the positive influence of Vision 2030 on the participation of Saudi women in marketing activities, underscoring the significance of this strategic plan in fostering gender equality and inclusive economic development in the country. The findings of the study reveal a significant and positive relationship between the level of awareness and understanding of Vision 2030 (LAU) and the participation of Saudi women in marketing activities (PWM). This indicates that a higher level of awareness and understanding of Vision 2030 positively influences and encourages Saudi women to actively engage in marketing-related endeavors. The results highlight the importance of promoting awareness and knowledge about Vision 2030 among Saudi women, as it serves as a catalyst for their active participation in the marketing sector. This finding is consistent with previous research that emphasizes the role of awareness and understanding in driving women's empowerment and their involvement in various domains (Alamri et al., 2022; Alghamdi et al., 2021). The findings of the study demonstrate that both Vision 2030 Implementation (VI) and the Level of Awareness and Understanding of Vision 2030 (LAU) have significant and positive effects on the Availability of Opportunities and Support (AS). These results indicate that a higher level of Vision 2030 implementation and awareness and understanding of its objectives contribute to creating a supportive environment with increased opportunities and support for Saudi women in marketing activities. This aligns with the goals of Vision 2030, which aims to empower women and provide them with more opportunities for active participation in various sectors, including marketing. Furthermore, the results reveal that the Availability of Opportunities and Support (AS) has a significant and positive effect on the Participation of Saudi Women in Marketing Activities (PWM). This suggests that when Saudi women have access to a supportive environment with ample opportunities and support, they are more likely to actively engage in marketing-related endeavors. These findings are consistent with previous research that highlights the importance of implementing supportive policies and providing opportunities for women's participation and empowerment in the workforce (Alamri et al., 2022; Alghamdi et al., 2021). They emphasize the crucial role of Vision 2030 in driving positive changes and creating an inclusive environment for Saudi women in the marketing sector. The findings of the study suggest that the availability of opportunities and support for Saudi women in marketing activities plays a mediating role in the relationship between Vision 2030 implementation,

the level of awareness and understanding of Vision 2030, and the participation of Saudi women in marketing activities. This indicates that the positive impact of Vision 2030 and awareness on participation is enhanced through the provision of opportunities and support for women in the marketing sector.

Conclusion

this study has provided valuable insights into the mediating effect of opportunities and support for Saudi women in marketing activities on the relationship between Vision 2030 implementation, the level of awareness and understanding of Vision 2030, and the participation of Saudi women in marketing activities. The findings indicate that the availability of opportunities and support acts as a significant mediator, enhancing the positive impact of Vision 2030 and awareness on women's participation in marketing activities. This highlights the importance of creating a supportive environment for women's involvement in the marketing sector to effectively implement the goals of Vision 2030. The findings of this study have several managerial and practical implications. Firstly, organizations and policymakers should recognize the significance of providing opportunities and support specifically tailored for Saudi women in marketing activities. This can be achieved through initiatives such as training programs, mentorship, networking opportunities, and targeted policies to encourage and empower women in the marketing sector. Secondly, organizations should prioritize raising awareness and understanding of Vision 2030 among Saudi women to enhance their engagement and participation in marketing activities. This can be done through educational campaigns, workshops, and seminars focused on the goals and benefits of Vision 2030. It is important to acknowledge the limitations of this study. Firstly, the research was conducted in a specific context, focusing on Saudi women in marketing activities. The findings may not be generalizable to other industries or regions. Secondly, the study relied on self-reported data, which may be subject to biases and inaccuracies. Future research could employ mixed-method approaches and include a more diverse sample to enhance the validity and generalizability of the findings. To further enhance understanding in this area, future research should consider the following avenues. Firstly, longitudinal studies could be conducted to examine the long-term effects of Vision 2030 implementation and opportunities and support on women's participation in marketing activities. This would provide insights into the sustainability and effectiveness of these initiatives. Secondly, qualitative studies could be conducted to explore the experiences and perspectives of Saudi women in the marketing sector, shedding light on the barriers and facilitators to their participation. Lastly, comparative studies across different countries and cultures would provide valuable insights into the contextual factors influencing the mediating effect of opportunities and support for women in marketing activities.

References

- Abusaimeh, H. (2020). Distributed denial of service attacks in cloud computing. International Journal of Advanced Computer Science and Applications, 11(6).
- Abusaimeh, H., Shkoukani, M., & Alshrouf, F. (2014). Balancing the network clusters for the lifetime enhancement in dense wireless sensor networks. Arabian Journal for Science and Engineering, 39, 3771-3779.
- Abusaimeh, H., & Alshareef, Y. (2021). Detecting the phishing website with the highest accuracy. TEM Journal, 10(2), 947.
- Abusaimeh, H. (2020). Virtual machine escape in cloud computing services. International Journal of Advanced Computer Science and Applications, 11(7).
- Abusaimeh, H. (2022). Computation Offloading for Mobile Cloud Computing Frameworks and Techniques. TEM Journal, 11(3), 1042-1046.

- Abusaimeh, H. (2020). Enhance the security and prevent vampire attack on wireless sensor networks using energy and broadcasts threshold values. International Journal of Advanced Computer Science and Applications, 11(3).
- Abusaimeh, H., Sharabati, A., & Asha, S. (2023). Using cloud computing services to enhance competitive advantage of commercial organizations. International Journal of Data and Network Science, 7(3), 1349-1360.
- ABUSAIMEH, H., & ISAID, O. (2017). HYBRID DATA DEDUPLICATION TECHNIQUE IN CLOUD COMPUTING FOR CLOUD STORAGE. Journal of Theoretical & Applied Information Technology, 95(24).
- Ahmad, A. Y. B., Kumari, D. K., Shukla, A., Deepak, A., Chandnani, M., Pundir, S., & Shrivastava, A. (2024). Framework for Cloud Based Document Management System with Institutional Schema of Database. International Journal of Intelligent Systems and Applications in Engineering, 12(3s), 672-678.
- Ahmad, A. Y. B., Tiwari, A., Nayeem, M. A., Biswal, B. K., Satapathy, D. P., Kulshreshtha, K., & Bordoloi, D. (2024). Artificial Intelligence Perspective Framework of the Smart Finance and Accounting Management Model. International Journal of Intelligent Systems and Applications in Engineering, 12(4s), 586-594.
- Ahmad, A., Abusaimeh, H., Rababah, A., Alqsass, M., Al-Olima, N., & Hamdan, M. (2024). Assessment of effects in advances of accounting technologies on quality financial reports in Jordanian public sector. Uncertain Supply Chain Management, 12(1), 133-142.
- Ahmad, A. (2024). Ethical implications of artificial intelligence in accounting: A framework for responsible ai adoption in multinational corporations in Jordan. International Journal of Data and Network Science, 8(1), 401-414.
- Ahmad Y. A. Bani Ahmad, "Firm Determinants that Influences Implementation of Accounting Technologies in Business Organizations," WSEAS Transactions on Business and Economics, vol. 21, pp. 1-11, 2024
- Ahmad, A. Y. B., William, P., Uike, D., Murgai, A., Bajaj, K. K., Deepak, A., & Shrivastava, A. (2024). Framework for Sustainable Energy Management using Smart Grid Panels Integrated with Machine Learning and IOT based Approach. International Journal of Intelligent Systems and Applications in Engineering, 12(2s), 581-590.
- Ahmad, A. B., Atta, A. A. B., Asma'a Al-Amarneh, M. S., & Dahbour, S. A. (2023). Fund Family Selectivity Skills and Market Timing Ability: Comparison Study
- Ahmad, A. Y. Bani ahmad, (2019). Empirical Analysis on Accounting Information System Usage in Banking Sector in Jordan. Academy of Accounting and Financial Studies Journal, 23(5), 1-9.
- Ahmad, A. Y. B., Gongada, T. N., Shrivastava, G., Gabbi, R. S., Islam, S., & Nagaraju, K. (2023). E-Commerce Trend Analysis and Management for Industry 5.0 using User Data Analysis. International Journal of Intelligent Systems and Applications in Engineering, 11(11s), 135-150.
- Alhawamdeh, H., Al-Saad, S. A., Almasarweh, M. S., Al-Hamad, A. A.-S. A., Bani Ahmad, A. Y. A. B., & Ayasrah, F. T. M. (2023). The Role of Energy Management Practices in Sustainable Tourism Development: A Case Study of Jerash, Jordan. International Journal of Energy Economics and Policy, 13(6), 321–333. https://doi.org/10.32479/ijeep.14724
- Allahham, M., & Ahmad, A. (2024). AI-induced anxiety in the assessment of factors influencing the adoption of mobile payment services in supply chain firms: A mental accounting perspective. International Journal of Data and Network Science, 8(1), 505-514.
- Y. A. B. Ahmad, S. S. Kumari, M. S, S. K. Guha, A. Gehlot and B. Pant, "Blockchain Implementation in Financial Sector and Cyber Security System," 2023 International Conference on Artificial Intelligence and Smart Communication (AISC), Greater Noida, India, 2023, pp. 586-590, https://doi.org/10.1109/AISC56616.2023.10085045
- Ahmad, A. Y. B., Atta, A. A. B., Shehadeh, M. A. H. A., Baniata, H. M. A., & Hani, L. Y. B. (2023). Fund family performance: Evidence from emerging countries. WSEAS Trans. Bus. Econ, 20, 951-964.

- 535 The Role of Vision 2030 in Supporting Saudi Women to Participate in Marketing Activities in the Kingdom of Saudi Arabia
- Alhareth, Y., & Alhammad, F. (2021). Saudi women empowerment in labor market post-Vision 2030. International Journal of Business and Management Studies, 3(1), 1-9.
- Alamri, M., Ahmad, S. Z., & Kumar, M. (2022). Women's Empowerment in Saudi Arabia: The Role of Vision 2030. Gender Issues, 39(1), 1-19.
- Alghamdi, H., Altuwaijri, A., Alreshoud, F., & Altuwaijri, H. (2021). Economic Empowerment of Saudi Women: An Analysis of Vision 2030 Initiatives. Sustainability, 13(15), 8455.
- Al-Dajani, H., & Marlow, S. (2020). Women entrepreneurship in Saudi Arabia: Opportunities and challenges within Vision 2030. International Journal of Gender and Entrepreneurship, 12(2), 161-181.
- Al-Ghafri, R. H., Al-Kindi, A. M., & Al-Adawi, S. (2021). Vision 2030 and the labor market participation of Omani women. International Journal of Sociology and Social Policy, 41(1/2), 209-227.
- Al-Saedi, A., & Alshamsi, S. (2020). The role of awareness and understanding of UAE Vision 2021 in promoting women's leadership. Gender in Management: An International Journal, 35(3), 220-237.
- Abuljadail, M. H., & Ha, L. (2019). What do marketers post on brands' Facebook pages in Islamic countries? An exploratory study of local and global brands in Saudi Arabia. Journal of Islamic Marketing, 10(4), 1272-1287.
- Ahmed, W. (2020). Women empowerment in Saudi Arabia: An analysis from education policy perspective. Middle East Int. J. Soc. Sci, 2, 93-98.
- Al-Dabbagh, H. (2019). Female employment in Saudi Arabia: Is Vision 2030 on track to achieve its target? Arab News. Retrieved from https://www.arabnews.com/node/1567036/saudi-arabia
- Aldossari, A. S. (2020). Vision 2030 and reducing the stigma of vocational and technical training among Saudi Arabian students. Empirical Research in Vocational Education and Training, 12(1), 1-24.
- Al-Faris, A. (2019). The Saudi Vision 2030: Challenges and opportunities for higher education. Higher Education, 77(5), 753-768.
- Alharbi, M. M. H. Kingdom (2022). Vision 2030 and the Women's Empowerment in Saudi Arabia: An Empirical Investigation. International Journal of Islamic Thought, 21.
- Aljohani, R. (2023). The Contribution of Saudi Female Journalists in Newspapers: Before and After Saudi Vision 2030.
- Alkhawaldeh, B. Y. S., Al-Zeaud, H. A., & Almarshad, M. N. (2022). Energy Consumption as a Measure of Energy Efficiency and Emissions in the MENA Countries: Evidence from GMM-Based Quantile Regression Approach. International Journal of Energy Economics and Policy, 12(5), 352-360.
- Alkhawaldeh, B. Y., & Mahmood, S. (2021). The Effect of Government Support for Fuel and Wheat on Economic Growth in Jordan: An Application of Dynamic Autoregressive-Distributed Lag.
- Alkhawaldeh, B., Y., Alhawamdeh H., Al-Afeef M., A., M., Al-Smadi, A., W., Almarshad, M., Fraihat, B., A., M., Soumadi, M., M., Nawasra, M., & Alaa A., A., (2023). The effect of financial technology on financial performance in Jordanian SMEs: The Role of Financial Satisfaction. Uncertain Supply Chain Management, 11(3), 1-12.
- Almathami, R., Khoo-Lattimore, C., & Yang, E. C. L. (2022). Exploring the challenges for women working in the event and festival sector in the Kingdom of Saudi Arabia. Tourism Recreation Research, 47(1), 47-61.
- Almujadidi, B., Adams, A., Alquaiz, A., Van Gurp, G., Schuster, T., & Andermann, A. (2022). Exploring social determinants of health in a Saudi Arabian primary health care setting: the need for a multidisciplinary approach. International Journal for Equity in Health, 21(1), 1-11.
- Al-Munajjed, M. (2017). Women and Vision 2030 in Saudi Arabia. Brookings Doha Center Analysis Paper, 18.

- Al-Qahtani, M. M. Z., Alkhateeb, T. T. Y., Abdalla, M. A. Z., Elsayed, S. A. M., Ibrahim, E. M. M., & Mawad, G. S. E. (2020). The economic empowerment of saudi women in the light of saudi vision 2030. Asian Economic and Financial Review, 10(11), 1269-1279.
- Alreshoodi, S. A., Rehman, A. U., Alshammari, S. A., Khan, T. N., & Moid, S. (2022). Women Entrepreneurs in Saudi Arabia: A Portrait of Progress in the Context of Their Drivers and Inhibitors. Journal of Enterprising Culture, 30(03), 375-400.
- Binyamin, M. A., & Dabbagh, M. A. (2019). Women in marketing in Saudi Arabia: An exploratory study. Journal of Islamic Marketing, 10(3), 826-840.
- Bani Atta, A. A., Ali Mustafa, J., Al-Qudah, S. S., Massad, E., & Ahmad, A. B. (2023). The effect of macroprudential regulation on banks' profitability during financial crises [Specialissue]. Corporate Governance and Organizational Behavior Review, 7(2), 245-258.
- Cheng, Congbin, Sayed Fayaz Ahmad, Muhammad Irshad, Ghadeer Alsanie, Yasser Khan, Ahmad Y. A. Bani Ahmad (Ayassrah), and Abdu Rahman Aleemi. 2023. "Impact of Green Process Innovation and Productivity on Sustainability: The Moderating Role of Environmental Awareness" Sustainability 15, no. 17: 12945. https://doi.org/10.3390/su151712945
- Choudhry, A. N., Abdul Mutalib, R., & Ismail, N. S. A. (2019). Socio-cultural factors affecting women economic empowerment in Pakistan: A situation analysis. International Journal of Academic Research in Business and Social Sciences, 9(5), 90-102
- Daoud, M. K., Al-Qeed, M., Ahmad, A. Y. B., & Al-Gasawneh, J. A. (2023). Mobile Marketing: Exploring the Efficacy of User-Centric Strategies for Enhanced Consumer Engagement and Conversion Rates. International Journal of Membrane Science and Technology, 10(2), 1252-1262.
- Daoud, M., Taha, S., Al-Qeed, M., Alsafadi, Y., Ahmad, A., & Allahham, M. (2024). EcoConnect: Guiding environmental awareness via digital marketing approaches. International Journal of Data and Network Science, 8(1), 235-242.
- El-Bakr, F. (2022). Empowering Saudi Women under Vision 2030: Opportunities and Challenges. International Journal of Childhood and Women's Studies, 2(4), 1-12.
- Fraihat, B. A. M., Ahmad, A. Y. B., Alaa, A. A., Alhawamdeh, A. M., Soumadi, M. M., Aln'emi, E. A. S., & Alkhawaldeh, B. Y. S. (2023). Evaluating Technology Improvement in Sustainable Development Goals by Analysing Financial Development and Energy Consumption in Jordan. International Journal of Energy Economics and Policy, 13(4), 348
- Grand, S., & Wolff, K. (2020). Assessing Saudi Vision 2030: A 2020 Review. Atlantic Council, 17.
- Hutchings, K., Moyle, C. L., Chai, A., Garofano, N., & Moore, S. (2020). Segregation of women in tourism employment in the APEC region. Tourism Management Perspectives, 34, 100655.
- Khan, M. S. (2020). Women's entrepreneurship and social capital: Exploring the link between the domestic sphere and the marketplace in Pakistan. Strategic Change, 29(3), 375-387.
- KPMG. (2019). Women in leadership: Breaking barriers. Retrieved from https://home.kpmg
- Mitchell, B., & Alfuraih, A. (2018). The Kingdom of Saudi Arabia: Achieving the aspirations of the National Transformation Program 2020 and Saudi vision 2030 through education. Journal of Education and Development, 2(3), 36.
- Rahman, R., & Al-Borie, H. M. (2021). Strengthening the Saudi Arabian healthcare system: role of vision 2030. International Journal of Healthcare Management, 14(4), 1483-1491.
- Lin, C., Ahmad, S. F., Ayassrah, A. Y. B. A., Irshad, M., Telba, A. A., Awwad, E. M., & Majid, M. I. (2023). Green production and green technology for sustainability: The mediating role of waste reduction and energy use. Heliyon, e22496.
- K. Daoud, D. . Alqudah, M. . Al-Qeed, B. A. . Al Qaied, and A. Y. A. B. . Ahmad, "The Relationship Between Mobile Marketing and Customer Perceptions in Jordanian Commercial Banks: The Electronic Quality as A Mediator Variable", ijmst, vol. 10, no. 2, pp. 1360-1371, Jun. 2023

- Mustafa, J. A., ATTA, A. A. B., AHMAD, A. Y. B., SHEHADEH, M., & Agustina, R. (2023). Spillover Effect in Islamic and Conventional Fund Family: Evidence from Emerging Countries. WSEAS Transactions on Business and Economics, 20, 1042-1058.
- Mohsin, H. J., Hani, L. Y. B., Atta, A. A. B., Al-Alawnh, N. A. K., Ahmad, A. B., & Samara, H. H. (2023). THE IMPACT OF DIGITAL FINANCIAL TECHNOLOGIES ON THE DEVELOPMENT OF ENTREPRENEURSHIP: EVIDENCE FROM COMMERCIAL BANKS IN THE EMERGING MARKETS.
- Mahafzah, A. H., & Abusaimeh, H. (2018). Optimizing power-based indoor tracking system for wireless sensor networks using ZigBee. International Journal of Advanced Computer Science and Applications, 9(12).
- Ni, L., Ahmad, S. F., Alshammari, T. O., Liang, H., Alsanie, G., Irshad, M., ... & Ayassrah, A. Y. B. A. (2023). The role of environmental regulation and green human capital towards sustainable development: The mediating role of green innovation and industry upgradation. Journal of Cleaner Production, 138497.
- Peng, Yixuan, Sayed Fayaz Ahmad, Ahmad Y. A. Bani Ahmad, Mustafa S. Al Shaikh, Mohammad Khalaf Daoud, and Fuad Mohammed Hussein Alhamdi. 2023. "Riding the Waves of Artificial Intelligence in Advancing Accounting and Its Implications for Sustainable Development Goals" Sustainability 15, no. 19: 14165. https://doi.org/10.3390/su151914165
- Peiran Liang, Yulu Guo, Sohaib Tahir Chauhdary, Manoj Kumar Agrawal, Sayed Fayaz Ahmad, Ahmad Yahiya Ahmad Bani Ahmad, Ahmad A. Ifseisi, Tiancheng Ji,2024,"Sustainable development and multi-aspect analysis of a novel polygeneration system using biogas upgrading and LNG regasification processes, producing power, heating, fresh water and liquid CO2,"Process Safety and Environmental Protection,
- Peiran Liang, Yulu Guo, Tirumala Uday Kumar Nutakki, Manoj Kumar Agrawal, Taseer Muhammad, Sayed Fayaz Ahmad, Ahmad Yahiya Ahmad Bani Ahmad, Muxing Qin, 2024. "Comprehensive assessment and sustainability improvement of a natural gas power plant utilizing an environmentally friendly combined cooling heating and power-desalination arrangement", Journal of Cleaner Production, Volume 436, 140387,
- R. A. Y. A. Bani Ahmad, Y. M. A. Tarshany, F. T. M. Ayasrah, F. S. Mohamad, S. I. A. Saany and B. Pandey, "The Role of Cybersecurity in E-Commerce to Achieve the Maqasid of Money," 2023 International Conference on Computer Science and Emerging Technologies (CSET), Bangalore, India, 2023, pp. 1-8, doi: 10.1109/CSET58993.2023.10346972.
- William, P., Ahmad, A. Y. B., Deepak, A., Gupta, R., Bajaj, K. K., & Deshmukh, R. (2024). Sustainable Implementation of Artificial Intelligence Based Decision Support System for Irrigation Projects in the Development of Rural Settlements. International Journal of Intelligent Systems and Applications in Engineering, 12(3s), 48-56.
- Wang, C., Ahmad, S. F., Ayassrah, A. Y. B. A., Awwad, E. M., Irshad, M., Ali, Y. A., ... & Han, H. (2023). An empirical evaluation of technology acceptance model for Artificial Intelligence in E-commerce. Heliyon, 9(8).
- Yahiya Ahmad Bani Ahmad (Ayassrah), Ahmad; Ahmad Mahmoud Bani Atta, Anas; Ali Alawawdeh, Hanan; Abdallah Aljundi, Nawaf; Morshed, Amer; and Amin Dahbour, Saleh (2023) "The Effect of System Quality and User Quality of Information Technology on Internal Audit Effectiveness in Jordan, And the Moderating Effect of Management Support," Applied Mathematics & Information Sciences: Vol. 17: Iss. 5, Article 12.
- DOI: https://dx.doi.org/10.18576/amis/170512
- Yacoub Nasereddin, Ahmad (2023) "The Impact of Lean Thinking on Strategic Planning in Industrial Companies in Jordan from the Upper and Middle Management: A Perspective Study," Information Sciences Letters: Vol. 12: Iss. 6, PP -
- SALIH, A. A., & NASEREDDIN, A. Y. The Role of Strategic Awareness in Developing the Practice of Strategic Foresight in Business Organizations-Epistemological Perspective.
- Nasereddin, A. (2023). Exploring the effect of corporate environmental management responsibility on firm performance. Uncertain Supply Chain Management, 11(2), 625-636.

- Salih, A., Mousa, Z., & Nasereddin, A. (2023). The impact of career capital on sustainable competitive advantage: The mediating role of human resource management capabilities. Uncertain Supply Chain Management, 11(2), 489-502.
- Raza, A., Al Nasar, M. R., Hanandeh, E. S., Zitar, R. A., Nasereddin, A. Y., & Abualigah, L. (2023). A Novel Methodology for Human Kinematics Motion Detection Based on Smartphones Sensor Data Using Artificial Intelligence. Technologies, 11(2), 55.
- Nasereddin, A. Y. (2023). Impact of the Blue Ocean Strategy Dimensions in Achieving Competitive Advantage from the Perspective of Faculty Members.
- Nasereddin, A. Y. (2023). A Business Analytics Approach to Strategic Management using Uncovering Corporate Challenges through Topic Modeling.
- Zhan, Y., Ahmad, S. F., Irshad, M., Al-Razgan, M., Awwad, E. M., Ali, Y. A., & Ayassrah, A. Y. B. A. (2024). Investigating the role of Cybersecurity's perceived threats in the adoption of health information systems. Heliyon, 10(1).