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ORIGINAL SCIENTIFIC PAPER

The Role of Artificial Intelligence in Empowering Women Entrepreneurs in the United Arab Emirates

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A B S T R A C T

In the recent era, artificial intelligence has entered the business sector by increasing business productivity, decision-making, and competitive advantage in markets for entrepreneurs. This is why the use of AI is a corresponding aspect of business activities across the globe. The study investigates the role of AI in supporting Emirati women entrepreneurs using mixed-method research. This approach allows research instruments like survey questionnaires and interviews to gain quantitative and qualitative insights. Using the convenience sampling procedure, quantitative data were gathered from 207 respondents, and interviews were conducted and analyses using descriptive and inferential statistics. The findings indicate that AI-powered automation enhances the effectiveness of operations, minimises bureaucracy, and fosters evidence-based decision-making. In addition, AI opens access to funding by simplifying credit analysis and investment prospects, thus eliminating conventional financing hurdles. AI-based learning solutions also enhance skills, giving women entrepreneurs the skills to manoeuvre flexible business environments. Moreover, AI-based market analytics delivers richer customer insights, allowing customized services and business

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growth. Despite these benefits, data privacy and technology adoption issues are still pertinent. The research finds that AI is a game-changing facilitator for women entrepreneurs, enabling business scale and limiting gender-based hindrances in entrepreneurship. The study's policy implications underscore the imperative for inclusive AI adoption policy, focused training programs, and facilitating policies to achieve the fullest possible potential for AI in catalysing women's business success.

KEYWORDS: *artificial intelligence, women entrepreneurs, business efficiency, market analytics, financial inclusion, AI-driven learning*

Introduction

The United Arab Emirates (UAE) is one of the few countries in the region where women are actively participating in entrepreneurship and where 45% of small and medium-sized enterprises (SMEs) are run by women, as illustrated in Figure 1 (Johnson, 2024). However, a troubling proportion of these are micro-businesses, with 88% falling under that category. The challenge arises when trying to transition these micro-enterprises into the retail realm that extends beyond the borders of the nation, which involves issues such as financing and regional or global market entry (Awad et al., 2024; Alnuaimi & Tabbara, 2023).

To aid such advancements, the UAE government has greatly emphasized the role of AI in the technology sector for women by launching various initiatives. One such example is the National Program for Coders, which facilitates opportunities to learn in various fields through programs like "AI-Forward," where 100 Emirati women are trained in AI skills, including but not limited to cybersecurity (Dark Reading, 2024). Even with all these initiatives, the lack of adoption of AI by UAE women entrepreneurs is primarily caused by financial constraints, lack of adequate awareness, and deeply rooted cultural norms (Hassan, 2024). The application of AI in business management is a well-studied area. However, there is scant literature concerning its adoption by women entrepreneurs in the UAE, a region with a very particular socio-cultural and economic setting. Even though the UAE has experienced an increase in female entrepreneurs in recent years, a few barriers, such as financing, work-life balance, and gender prejudices, persist (Basheer, 2023).

This study will help fill this gap by examining the intersection of AI and women's entrepreneurship to understand how technology can help tackle these issues and improve women entrepreneurs' well-being and

business success. Applying AI technologies to decision-making, business productivity, and work-life management greatly assists in closing the gap senior women entrepreneurs face (Abadzi & ElAsad, 2021). Considering its scope, this study furthers the discourse on how modern tech can lessen the gaps exhibited in entrepreneurial activities amongst women. This research will undoubtedly reveal mechanisms through which women can scale traditional boundaries imposed on them using AI tools, which optimally set the business environment. Moreover, the research should be accompanied by the development training material and support systems that enable women to harness AI effectively in their enterprises (Alateeg & Al-Ayed, 2024).

Given the broad scope of the study, it aims to explore and understand the role of Artificial Intelligence (AI) in empowering women entrepreneurs in the UAE. To achieve its research aim and objectives, the study employs mixed-method research to assess the adoption and effectively evaluate AI's influence on business growth and financial access for women entrepreneurs in the UAE. In this regard, the study has been designed to address the following specific research questions.

- How do UAE women entrepreneurs perceive the role of AI in improving decision-making and business efficiency?
- What impact does AI have on the work-life balance of women entrepreneurs in the UAE?
- In what ways does AI contribute to the growth and financial success of women-led businesses in the UAE?

Theoretical Framework

Many studies included in this review are built on established theories that segregate the adoption and impact of AI on women entrepreneurs. 'Innovation Diffusion Theory,' Rogers pioneered, is integral for most studies and the core framework. The idea focuses on the spread and adoption of new technologies across society. It can also be seen in the study by Anabtawi et al. (2024) on generative AI tools for women entrepreneurs. Moreover, one structure often cited in the context of cultural stereotypes and societal attitudes toward women's entrepreneurial endeavours is the Socio-cultural Theory. Alateeg and Al-Ayed (2024) elaborate on the stereotype's women entrepreneurs face in Saudi Arabia, specifically emphasizing AI.

The authors look at women's activism in business in Saudi Arabia and how AI affects their operations.

The study's findings, which are based on 16 elaborate interviews with women entrepreneurs, include challenges of low familiarity with the AI tools available, poverty, and cultural constraints. In the context of the UAE, Abed (2024) examines women's athletic performance and sustainability in the region using AI technologies. Mehrunissa et al. (2024) included data from a 385 U AE female athletes survey. The study shows that AI can improve athletic performance through practical training, injury monitoring, and prevention plans. The inquiry further explores the issues of the nexus between gender empowerment and ecological sustainability, depicting AI as an innovative tool capable of improving women's athletic performance while decreasing the ecological footprint of the sport. Mahmood et al. (2023) look into the impact of organizational culture and AI-related education on women's leadership achievement in the UAE. They used structured questionnaires targeting women leaders in the region to identify organizational culture and AI training as success contributors. The study demonstrates that AI technologies support women in leadership roles by enabling more effective data-based decision-making and improving technical proficiency.

This study is important in overcoming leadership challenges and improving organizational results using technology resources such as AI. Stimulated by the context of generative AI instruments, Anabtawi et al. (2024) analyse women business owners' acceptance of such technologies and mention factors like trialability and observability that facilitate adopting these instruments.

The other school of thought reinforces related dimensions of technological adoption. For instance, Shamaki et al. (2022) argued that there must be a good balance between adopting technology and its broader implementation for businesses. Feranita et al. (2024) added that human, financial, physical, and intellectual resources positively and significantly impact female entrepreneurs' adoption of digital technology. Henceforth, the role of these determinants cannot be overlooked.

The mediated assessment of leadership by Tejada and Cumino (2024) pointed out that psychological factors such as work stress are critical determinants of business success for both men and women. Therefore, the conceptualization of women's entrepreneurship must be well-aligned with social, psychological, and cultural variables. Lastly, Karali et al. (2024)

assessed high-profile women executives and concluded that organizations with technological innovation stimulate creative thinking, leading to higher performance rates.

The discussion provides substantial conceptual information for evaluating the role of technology and AI in empowering women at the individual, social, cultural, organizational, and economic levels.

Methods and Materials

This research uses a mixed-methods design that integrates exploratory qualitative and descriptive quantitative research approaches to investigate the role of AI in enabling women entrepreneurs in the United Arab Emirates. The research design explores the lived experiences and general patterns of AI adoption, decision-making, business performance, and work-life balance. The qualitative part concerns the lived experiences of women entrepreneurs and the perceived effect of AI on their entrepreneurial experience. This stage employed semi-structured interviews with ten women entrepreneurs across different industries. Although non-probabilistic, participants were chosen using convenience sampling, which is appropriate for exploratory research where accessibility and willingness to participate are crucial (Rahman et al., 2022). Interviews were audio-recorded, transcribed, and analysed through thematic analysis, adhering to the steps detailed by Dhakal (2022) and Reñosa et al. (2021). These steps included recognizing recurring patterns, significant themes, and latent constructs describing how AI technologies shape women's entrepreneurial activities. NVivo software facilitates systematic and rigorous coding (Duan et al., 2019; Rahman et al., 2022). Quantitative components seek to establish overall patterns and correlations between the selected variables.

This study examines a range of constructs associated with AI adoption and its influence on entrepreneurial outcomes, particularly for women. Decision-Making (DEM) refers to the enhancement of strategic, financial, and operational choices through AI-powered real-time insights, as highlighted by Samara et al. (2024) and Kaggwa et al. (2024). Work-life balance (WLB) is supported by AI tools that assist in managing time and reducing stress, facilitating equilibrium between professional and personal responsibilities (Agarwal & Goel, 2024). Business Automation (BAU) encompasses using AI to streamline repetitive tasks, thereby boosting efficiency and enabling focus on strategic planning (Aiswarya & Sangeetha,

2023). Financial Access (FIA) reflects improved access to credit, loans, and investment opportunities through AI-based fintech solutions, reducing traditional barriers (Khoza, 2024). The role of Skill Development and Learning (SDL) is emphasized through AI-powered educational platforms that foster continuous entrepreneurial growth (Sanni, 2025). Networking and Collaboration (NWC) are enhanced via AI-driven systems that connect entrepreneurs with mentors and collaborators, fostering supportive business ecosystems (Seshasai & Shriya, 2024). Customer Engagement (CUE) benefits from AI tools like chatbots and analytics, which personalize interactions and improve customer retention (Usman et al., 2024). Risk Management (RMG) is strengthened through AI's capabilities in cybersecurity, fraud detection, and risk assessment (Bhatnagar & Yadav, 2023). These factors collectively influence Business Performance and Growth (BPG), which is driven by AI-enhanced decision-making and operational efficiency, ultimately reflecting improved profitability and sustainability (Alateeg & Al-Ayed, 2024; Welsh, 2018). At the core, the study focuses on Empowering Women Entrepreneurs (EWE) by leveraging AI to overcome structural and cultural barriers, fostering greater business autonomy and success (Thomas, 2025). For better understanding, a table has been added in the appendix (See Table A1 in the appendix). It is worth mentioning here that the items of the constructs have been assessed based on a 5-point likert scale that ranged from strongly disagree (coded as 1) to agree (coded as 5) strongly.

An organized online questionnaire was sent to UAE-based women entrepreneurs, and 207 finalized responses were obtained. The sample was once more drawn from convenience sampling, facilitating easy access to a varied pool of entrepreneurs actively using AI tools (Nii & Ogbewe, 2023). The questionnaire collected information on demographic variables, industry, entrepreneurial experience, and targeted AI applications. The study used frequency distribution for descriptive purposes and mediating regression analysis to investigate the relationships between independent (AI tools) and dependent (entrepreneurial performance indicators) variables (Nii & Ogbewe, 2023).

Results from both parts were triangulated to offer a holistic view of AI's role in women's entrepreneurship. All participants gave informed consent, and the research adhered to strict ethical guidelines, guaranteeing confidentiality and voluntariness. Table 1 provides a quick overview of the

demographic profile of the respondents who participated in the survey submissions.

Table 1: Summary of Demographic Profiles

Category	Frequency	Percentage (%)
Age Group		
18-24	15	7.2
25-34	11	5.3
35-44	36	17.4
45-54	103	49.8
55 or More	42	20.3
Level of Education		
Bachelor's Degree	39	18.8
Doctorate	1	0.5
Master's Degree	167	80.7
Industry of Business		
Catering	37	17.9
Coaching	45	21.7
Fashion	4	1.9
Finance	15	7.2
Healthcare	5	2.4
Marketing	14	6.8
Retail & E-commerce	66	31.9
Technology	2	1.0
Training	19	9.2
Years of Entrepreneurial Experience		
Less than 1 year	30	14.5
1-3 years	39	18.8
4-7 years	65	31.4
8+ years	73	35.3
Incorporating AI Tools in Business		
Yes	207	100.0

Source: Estimated by the authors

The demographic analysis in Table 1 provides key insights into the participants' profiles. According to the table, most respondents (49.8%) belong to the 45-54 age group, followed by those aged 55 or more (20.3%), indicating a significant presence of mid-career and experienced entrepreneurs. A substantial proportion (80.7%) hold a master's degree, suggesting a highly qualified sample. The business distribution sector

reveals that retail and e-commerce (31.9%) are the most prominent industries, followed by coaching (21.7%) and catering (17.9%), while technology (1.0%) and fashion (1.9%) are the least represented. Regarding entrepreneurial experience, most respondents (35.3%) have over eight years of experience, while 31.4% have between four and seven years. Notably, all participants (100%) have incorporated artificial intelligence (AI) tools in their businesses.

Results

Reliability Statistics

Table 2: Cronbach's Alpha Estimates

Overall Cronbach's Alpha	**Cronbach's Alpha Based on Standardized Items**	**N of Items**
.914	**.919**	**50**
Variables	Cronbach's Alpha	N of Items
DEM	0.840	5
WLB	0.843	5
BUA	0.880	5
FIA	0.929	5
SDL	0.781	5
NWC	0.606	5
CUE	0.803	5
RMG	0.950	5
BPG	0.943	5
EWE	0.804	5
Valid N (listwise)	207	

Source: Estimated by the Authors

Table 2 provides reliability statistics using Cronbach's alpha. According to the table, the coefficient's value is 0.914, indicating a high level of reliability of the scaled items (N=50). The overall Cronbach's Alpha for the 50-item scale is 0.914, indicating internal consistency. Most individual constructs show good reliability, such as FIA ($\alpha = 0.929$), RMG ($\alpha = 0.950$), and BPG ($\alpha = 0.943$). Constructs like DEM ($\alpha = 0.840$), EWE ($\alpha = 0.804$), and WLB ($\alpha = 0.843$) also demonstrate strong reliability.

However, SDL (α = 0.781) and NWC (α = 0.606) show relatively low reliability.

The correlation matrix in Table 3 presents the main factors influencing the empowerment of women entrepreneurs in the UAE, emphasizing AI's contribution. The correlation matrix reveals several statistically significant relationships among the variables at the 0.01 level. Strong positive correlations were found between FIA and EWE (r = .757) and between FIA and CUE (r = .663), indicating that better financial access is closely associated with increased empowerment and stronger customer engagement. DEM is also positively correlated with multiple variables, including FIA (r = .489), CUE (r = .494), and EWE (r = .424), suggesting its central role in enhancing other entrepreneurial capacities.

Table 3: Correlation Matrix

Var	DEM	WLB	BUA	FIA	SDL	NWC	CUE	RMG	BPG	EWE
DEM	1	.447**		.489**		.256**	.494**	.337**	.350**	.424**
WLB		1	.449**	.558**			.273**	.390**		.328**
BUA			1	.607**	.588**		.441**			.434**
FIA				1	.334**		.663**	.271**	.191**	.757**
SDL					1	.272**	.442**			.399**
NWC						1	.514**	.467**		
CUE							1	.532**		.416**
RMG								1	-.336**	
BPG									1	.386**
EWE										1

Source: Estimated by the Authors

Note: Only significant correlations at the 0.01 level are shown (p < 0.01, 2-tailed)

*** = very significant (p < 0.01)*

Similarly, BUA strongly correlates with FIA (r = .607) and SDL (r = .588), implying that automation is linked to improved finance access and skill enhancement. These findings collectively highlight that financial empowerment, decision-making abilities, and automation are key interconnected elements that contribute to the success and growth of women entrepreneurs.

Regression Analysis

Determining the Role of AI In Improving DEM and BPG

Table 4: Estimates of Model 1 (Predicting BPG as Mediator)

Predictor	Coefficient	SE	t	p	LLCI	ULCI
Constant	0	0.0523	0	1.0000	-0.1032	0.1032
DEM	0.4770	0.0736	6.484	0.0000	0.3319	0.6221
WLB	-0.2388	0.0795	-3.0036	0.0030	-0.3955	-0.0820
BUA	-0.1898	0.0925	-2.0507	0.0416	-0.3723	-0.0073
FIA	0.5072	0.0974	5.2070	0.0000	0.3151	0.6993
SDL	0.0527	0.0759	0.6947	0.4881	-0.0969	0.2023
NWC	0.1638	0.0739	2.2170	0.0278	0.0181	0.3096
CUE	-0.3362	0.1069	-3.1461	0.0019	-0.5469	-0.1255
RMG	-0.4127	0.0768	-5.3734	0.0000	-0.5642	-0.2613

Source: Estimated by the authors

Note: DEM = Decision-Making, WLB = Work-Life Balance, BUA = Business Automation, FIA = Financial Access, SDL = Skill Development and Learning, NWC = Networking and Collaboration, CUE = Customer Engagement, RMG = Risk Management, BPG = Business Performance and Growth, EWE = Empowering Women Entrepreneurs

The findings of Model 1in Table 4 show that DEM significantly and positively affects BPG with a coefficient value of 0.4770 ($p < 0.001$), indicating that effective decision-making increases organizational growth, which can affect employee work engagement. On the other hand, FIA ($\beta = 0.5072$, $p < 0.001$) is also significant, emphasizing the role of financial security at the organizational level. However, WLB, BUA, CUE, and RMG negatively correlate with BPG. The respective coefficients for the variables are -0.2388 ($p = 0.003$), -0.1898 ($p = 0.042$), -0.3362 ($p = 0.002$), and 0.4127 ($p < 0.001$). These findings unveiled that difficulty in balancing professional and personal life, business change adaptability, customer engagement, and role management might deter business growth. The results exhibit a positive correlation with BPG; the coefficient value is 0.1638 ($p = 0.028$), suggesting that improved networking and communication skills are linked to better organizational growth outcomes. Well-being. The model predicts 45.5% of the variance ($R^2 = 0.455$, $p < 0.001$) in BPG, showing a strong fit and supporting the important role of decision-making and access to finance in performance, which could further be strengthened using AI-

based decision-support systems and financial products for women entrepreneurs in the UAE.

Table 5: Estimates of Model 2 (Predicting EWE as outcome)

Predictor	Coefficient	SE	t	p	LLCI	ULCI
Constant	0	0.0355	0	1	-0.07	0.07
DEM	0.1182	0.055	2.1509	0.0327	0.0098	0.2266
BPG	0.1214	0.0482	2.5175	0.0126	0.0263	0.2165
WLB	-0.0881	0.0552	-1.5967	0.1119	-0.1968	0.0207
BUA	-0.1743	0.0635	-2.7471	0.0066	-0.2995	-0.0492
FIA	0.7844	0.0705	11.1296	0	0.6454	0.9234
SDL	0.3185	0.0515	6.1783	0	0.2168	0.4201
NWC	-0.2618	0.0508	-5.1577	0	-0.3619	-0.1617
CUE	-0.0033	0.0743	-0.0445	0.9645	-0.1498	0.1432
RMG	-0.1157	0.0558	-2.073	0.0395	-0.2257	-0.0056

Source: Estimated by the authors

The estimates of Model 2 have been explained in Table 5, incorporating the determinants of EWE. The model explicitly highlights decision-making DEM and BPG as main predictors. The model is firmly fitted ($R^2 = 0.7503$, $p < 0.001$) and explains 75.03% of EWE variance. FIA ($\beta = 0.7844$, $p < 0.001$) and SDL ($\beta = 0.3185$, $p < 0.001$) have the most significant positive influences, indicating that financial security and skill development play crucial roles in boosting women's entrepreneurship. DEM ($\beta = 0.1182$, $p = 0.033$) and BPG ($\beta = 0.1214$, $p = 0.013$) share positive significant correlations with EWE, suggesting that enhanced decision-making and organizational growth help to greater engagement. Nonetheless, BUA ($\beta = -0.1743$, $p = 0.007$), NWC ($\beta = -0.2618$, $p < 0.001$), and RMG ($\beta = -0.1157$, $p = 0.040$) are negative contributors to EWE, implying difficulties in adapting to business automation, networking, and risk management for women entrepreneurs in the UAE. The indirect impact of DEM on EWE via BPG ($\beta = 0.0579$, 95% CI: 0.0123–0.1186) again validates the mediating role of organisational growth.

Investigating the Impact of AI On WLB and RMG

The findings show that concerns related to WLB may adversely affect organizational performance. The coefficient value of -0.2388 ($p = 0.003$)

implies that balancing work and personal life could impede organizational performance. Additionally, a positive contribution of FIA and DEM can further be validated for organizations through respective positive coefficient values of 0.5072 ($p < 0.00$) and 0.477 ($p < 0.001$), highlighting the importance of financial security and sound decision-making in mitigating stress. In contrast, CUE ($\beta = -0.3362$, $p = 0.002$) and RMG ($\beta = -0.4127$, $p < 0.001$) are negative influences on BPG, indicating potential risk factors in dealing with customers and business duties.

Table 6: Summary of Key Findings

Effect Type	Effect	SE	t-value	p-value	LLCI	ULCI
Direct Effect (WLB → EWE)	-0.0881	0.0552	-1.5967	0.1119	-0.1968	0.0207
Indirect Effect (WLB → BPG → EWE)	-0.029	0.015	-	-	-0.061	-0.003
Direct Effect (DEM → EWE)	0.1182	0.055	2.1509	0.0327	0.0098	0.2266
Indirect Effect (DEM → BPG → EWE)	0.0579	0.0271	-	-	0.0123	0.1186

Source: Estimated by the authors

For EWE, BPG has shown a significant positive impact ($\beta = 0.1214$, $p = 0.013$), further affirming its mediating function. FIA has made strong positive contributions to EWE, which shows the value of AI-powered financial tools and ongoing learning systems. Nevertheless, BUA and NWC negatively impact engagement, perhaps from the stress of adjusting to change and over commitment expectations. The model accounts for 45.5% of BPG variance ($R^2 = 0.455$, $p < 0.001$) and 75.03% of EWE variance ($R^2 = 0.7503$, $p < 0.001$), indicating a good fit.

Evaluating the Impact of AI On BPG and FIA

The summary of key estimates in Tables 7 and 8 validates the impact of FIA on EWE, where BPG is the mediator. The results show that FIA ($\beta = 0.5072$, $p < 0.001$) positively impacts BPG significantly, such that organizational growth is improved substantially in a fair work environment. Moreover, DEM ($\beta = 0.477$, $p < 0.001$) and NWC ($\beta = 0.1638$, $p = 0.028$) have positive impacts on BPG. Nonetheless, the influence of factors such as

BUA (β = -0.1898, p = 0.042), CUE (β = -0.3362, p = 0.002), RMG (β = -0.4127, p < 0.001), and WLB (β = -0.2388, p = 0.003) on BPG is negative, implying that problems in these factors may inhibit the growth of organizations. The model accounts for 45.5% of the variance in BPG (R^2 = 0.455, F (8,198) = 20.6618, p < 0.001).

Table 7: Summary of Key Regression Results

Effect Type	Effect	SE	t	p-value	LLCI	ULCI
Direct Effect (FA → EWE)	0.7844	0.0705	11.13	0.000	0.6454	0.9234
Indirect Effect (FA → BPG → EWE)	0.0616	0.0272	—	—	0.0143	0.1221

Source: Estimated by the authors

In the prediction of EWE, FA (β = 0.7844, p < 0.001) is identified as the strongest predictor, reiterating that fairness directly influences work engagement. BPG (β = 0.1214, p = 0.013) also shows a positive influence, affirming its mediating role. Additionally, SDL (β = 0.3185, p < 0.001) positively affects EWE. In contrast, BUA (β = -0.1743, p = 0.007), NWC (β = -0.2618, p < 0.001), and RMG (β = -0.1157, p = 0.040) have adverse effects on engagement, suggesting possible stressors in conforming to change and coping with roles. The model accounts for 75% of the variance in EWE (R^2 = 0.7503, F (9,197) = 65.7727, p < 0.001).

Table 8: Model Fit and Bootstrap Analysis

Model 1 (Predicting BPG): R^2 = 0.455, F (8,198) = 20.6618, p < 0.001
Model 2 (Predicting EWE): R^2 = 0.7503, F (9,197) = 65.7727, p < 0.001
Bootstrap Samples: 5000
Confidence Level: 95%

Source: Estimated by the authors

In terms of mediation, FIA directly influences EWE (β = 0.7844, p < 0.001) strongly, and the indirect effect through BPG (β = 0.0616, 95% CI:

0.0143–0.1221) supports partial mediation. This suggests that fairness impacts work engagement and promotes growth.

Thematic Analysis of AI Adoption in Women-Led Businesses

Improved Efficiency and Productivity

The typical response among all participants was that AI had enhanced efficiency in their operations. AI-based automation softwares like Hub-spot, Calendly, Trendalytics, BlueCart, Epic Systems, and Thinkific have automated routine tasks, improved processes, and maximized resource use.

Useful AI Tools and Platforms

The following platforms were significant contributors to fulfilling women entrepreneurs' business needs. These tools enable entrepreneurs to automate critical business processes, saving time on administrative work.

- Coaching: HubSpot (CRM), Calendly (scheduling)
- Fashion: Trendalytics (trend prediction), Shopify AI (sales analytics)
- Catering: BlueCart, MarketMan (inventory management)
- Healthcare: Epic Systems (electronic health records), Zocdoc (scheduling)
- Training: Teachable, Thinkific (course management, student tracking)

Availability of Financial Resources and AI-powered learning and Skill Development

The participants mentioned that AI has been instrumental in handling financial information and obtaining loans. QuickBooks and Kiva are examples of platforms that offer transparent financial statements, determine creditworthiness, and help apply for loans or investments. AI-powered learning platforms such as LinkedIn Learning, Coursera, Skillshare, Udemy, and MasterClass have played a crucial role in entrepreneurial skill development. These platforms provide sector-specific courses relevant to business requirements, enabling entrepreneurs to remain current with market trends, business strategy, and technical skills.

Customer Analytics and Market Insights

AI-based analytics software, such as Google Analytics and Shopify AI, has provided insightful information about customer behaviour, market trends, and preferences. Fashion, catering, and healthcare entrepreneurs have successfully used AI to customize their services, forecast demand, and enhance customer interaction, resulting in business growth.

Workload Minimization and Work-Life Balance

AI-powered automation has reduced workload burdens, especially in repetitive and administrative work. Scheduling, invoicing, customer management, and order processing are now automated, providing business owners greater flexibility.

Breaking Traditional Barriers to Women Entrepreneurs

Table 9: Key Findings of Thematic Assessment

Key Area	Impact of AI	Examples of AI Tools Used
Efficiency & Productivity	Automates tasks, improve scheduling, and enhances client management	HubSpot, Calendly, Epic Systems
Financial Access	Facilitates loan applications, tracks financial health	QuickBooks, Kiva
Entrepreneurial Learning	Provides tailored courses and business insights	Coursera, LinkedIn Learning, Udemy
Market Insights & Analytics	Predicts trends, personalizes offerings	Trendalytics, Google Analytics, Shopify AI
Workload Reduction & Work-Life Balance	Reduces administrative burden, enhances flexibility	MarketMan, Teachable, Thinkific
Breaking Barriers for Women Entrepreneurs	Levels the playing field, enables scalability	AI-driven business tools

Source: Compiled by Authors

Table 9 summarizes key thematic outcomes. AI has revolutionized women entrepreneurs in different industries. Through increased efficiency, access to finance, learning, market information, and automation, AI has helped women expand and scale their businesses more efficiently. The

availability of AI tools has also been instrumental in breaking gender-based barriers in entrepreneurship.

Discussion

The research examined the role of AI in maximizing entrepreneurial success, especially for female-owned businesses. Quantitative survey findings proved a strong positive correlation between AI uptake and several business performance indicators, such as efficiency, finance management, and market intelligence. Regression analysis established that AI tools directly lead to better business performance by streamlining mundane tasks, maximizing financial decision-making, and improving customer interactions. The qualitative interviews then situated these statistical results within the lived experiences of women entrepreneurs from different industries. The respondents underscored how AI has helped streamline operations, with one coach business owner commenting that AI-powered CRM tools and automated scheduling have enabled more client-centred interactions. Conversely, another fashion entrepreneur noted the importance of AI analytics for forecasting trends and inventory optimization, supporting earlier findings that AI makes decision-making more effective through predictive analysis (Shahbazi et al., 2024).

It is a well-evident fact that the adoption of AI in business has resulted in drastic increases in efficiency and productivity. Statistics from a survey show that more than 70% of the respondents attested to boosted efficiency through automation by AI (Al Shehab & Hamdan, 2021). It is backed up by qualitative interviews, whereby entrepreneurs highlighted how AI could carry out administrative processes, like appointments and customer service, so that they can concentrate on the business's primary activities. AI-based platforms such as CRM software, chatbots, and automated scheduling platforms have been instrumental in streamlining day-to-day operations (Al Khayyal et al., 2020; Brynjolfsson & Mcafee, 2017). AI has also made financial management and access to capital easier by using AI-powered financial tools. As noted by respondents, AI has facilitated them a lot in easing bookkeeping and improving credit scoring. This concurs with past research that has indicated that AI enhances financial decision-making using real-time analytics and predictive modelling (Mukherjee, 2020).

AI-powered learning platforms have directly influenced entrepreneurial ability-building. In this regard, platforms like LinkedIn Learning, Coursera,

and Udemy provide tailored courses that sharpen their business acumen and management abilities (Balaji, 2025). Literature validates this by explaining how AI adjusts learning experiences based on individual needs, enabling constant professional development (Bughin et al., 2018).

Balaji (2025) declared AI a game-changer for entrepreneurs due to its ability to perform accurate market analysis and assess customer insights (Challoumis, 2024). This is why these areas have been revolutionized with the adoption of AI. AI-driven tools like Google Analytics and Shopify's analytics suite help entrepreneurs understand customer behaviour, track purchasing trends, and tailor their offerings accordingly. The finding supports the argument that AI enhances data-driven decision-making, a key factor in business sustainability (Nambisan et al., 2019). Automation was broadly recognized as a game-changer that minimizes workload and enhances work-life balance. Business owners in different sectors pointed out how AI automated mundane processes like order processing, invoicing, and communication, freeing time for planning and personal health. This supports evidence in current research, which points to the potential of AI to enhance business efficiency while alleviating burnout (Abadzi & ElAsad, 2021).

Conclusion

The findings of this study underscore impact of AI on entrepreneurship, particularly in enhancing operational efficiency, financial access, skill development, market intelligence, and work-life balance. AI-driven solutions have enabled entrepreneurs to make informed decisions, optimize business processes, and navigate financial complexities more easily. AI has been key in helping women entrepreneurs transcend conventional business impediments. Numerous respondents observed that AI enables them to run and grow businesses with limited teams or extensive resources. This aligns with research supporting the argument that AI solutions make access to business tools universal, promoting gender inclusivity in entrepreneurship. Moreover, AI has contributed to a more inclusive business environment. Future studies must investigate the long-term effects of AI adoption in entrepreneurship, emphasizing ethical implications, possible risks, and developing AI capabilities within business environments.

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