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From Policy to Practice: Assessing the Readiness of Ghanaian Manufacturing SMEs for Continental Trade Integration

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Abstract

The African Continental Free Trade Area (AfCFTA) represents a transformative opportunity for African economic integration, yet the readiness of small and medium-sized enterprises (SMEs), the backbone of most African economies, remains inadequately understood. This study assesses the readiness of Ghanaian manufacturing SMEs for continental trade integration under the AfCFTA framework. Drawing on survey data from 350 manufacturing SMEs across Ghana and employing descriptive statistics, correlation analysis, and multiple regression, the research examines perceived opportunities, persistent challenges, digitalization and e-commerce adoption, and financial constraints.

The findings reveal a significant gap between policy aspirations and firm-level realities. While 88.8% of respondents recognize AfCFTA-related opportunities, particularly market access (67.1% strongly agree) and cross-border collaboration (43.1% strongly agree), financial constraints (87.2% agreement) and infrastructure deficits (89.0%) remain binding constraints. Digitalization demonstrates transformative potential, with 88.3% agreeing it enhances competitiveness, yet faces adoption barriers including cybersecurity concerns (78.9%), high technology costs (82.9%), and skills gaps (82.3%). Regression analysis identifies financial constraints as the strongest predictor of challenges faced ($\beta = 0.406$, $p < 0.001$), while opportunities ($\beta = 0.330$, $p < 0.001$) and challenges ($\beta = 0.284$, $p < 0.001$) significantly predict digital adoption.

The study provides empirical evidence on the SME policy implementation gap in regional trade integration, advances theoretical understanding of digital adoption in resource-constrained contexts, and offers actionable recommendations for policymakers, financial institutions, and SME support organizations.

Keywords: AfCFTA, SMEs, manufacturing, Ghana, trade integration, digitalization, financial constraints, regional integration

1.0 Introduction

The African Continental Free Trade Area (AfCFTA), which commenced trading on January 1, 2021, created the largest free-trade zone by number of participating countries since the establishment of the World Trade Organization. With 54 of 55 African Union members having signed and 44 countries having ratified by March 2024, the agreement aims to create a single continental market for goods and services, facilitate free movement of persons, and boost industrial development. The potential economic impact is substantial: full implementation could boost continental GDP

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by 7% (approximately US$450 billion) by 2035, lift 30 million people out of extreme poverty, and increase intra-African exports by 81%.

Small and Medium-sized Enterprises (SMEs) constitute approximately 85% of all registered businesses in Ghana and contribute about 70% of the country's Gross Domestic Product (GDP), employing roughly 80% of the workforce. However, despite their economic significance, Ghanaian SMEs have historically struggled to engage in international trade due to limited access to finance, inadequate infrastructure, insufficient market knowledge, and complex regulatory requirements. These constraints have largely confined them to domestic markets and prevented their integration into regional and global value chains.

Ghana's strategic position as host of the AfCFTA Secretariat in Accra places the country at the epicentre of continental trade integration efforts. The government has developed a National AfCFTA Implementation Strategy focusing on increasing production capacity, strengthening trade infrastructure, improving the business climate, and expanding export baskets. Over 2,000 MSMEs have received direct support through the National AfCFTA Coordination Office, with more than 900 products now registered to trade under AfCFTA.

However, a significant gap persists between policy ambition and firm-level reality. Research indicates that while 32% of Ghanaian firms claim readiness for the AfCFTA, 57% admit they are unprepared. A 2024 survey of 250 SMEs across multiple sectors found that while many firms demonstrated capacity for innovation and production, most lacked a critical understanding of export requirements under the AfCFTA. The obstacles facing Ghanaian SME exporters include high production costs, border delays, poor infrastructure, high inflation, difficulty accessing credit, and language problems.

This study addresses the gap between policy formulation and practical implementation by systematically assessing the readiness of Ghanaian manufacturing SMEs for continental trade integration. Specifically, it examines: (1) perceived AfCFTA-related opportunities; (2) challenges facing SMEs under AfCFTA; (3) the impact of digitalization and e-commerce on international competitiveness; and (4) financial constraints affecting SME participation in regional trade. By providing empirical evidence on these dimensions, the research contributes to understanding how trade liberalization translates—or fails to translate—into tangible benefits for the enterprises that form the backbone of African economies.

2.0 Theoretical Framework

This study integrates three complementary theoretical perspectives to provide a comprehensive understanding of SME readiness for continental trade integration.

2.1 Resource-Based View (RBV)

The RBV (Barney, 1991) posits that firms achieve competitive advantage through resources that are valuable, rare, costly to imitate, and non-substitutable. These resources include tangible assets (financial capital, production facilities), intangible assets (brand reputation, patents), and organizational capabilities (managerial skills, operational routines). In the AfCFTA context, the RBV explains why some SMEs capitalize on export opportunities while others fail: firms with superior resources and distinctive capabilities recognize and exploit treaty opportunities more effectively. The dynamic capabilities extension (Teece et al., 1997) is particularly relevant, as AfCFTA creates a rapidly changing trade landscape requiring firms to sense opportunities, seize them, and transform their resource configurations accordingly.

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2.2 Uppsala Internationalization Model

The Uppsala Model (Johanson & Vahlne, 1977, 2009) conceptualizes internationalization as an incremental learning process. Firms begin with culturally and geographically proximate markets, gradually committing more resources as they gain experience. The 2009 update emphasizes networks, introducing the concept of "liability of outsidership" the challenge of gaining credibility in local business networks. For Ghanaian SMEs, this framework suggests that regional integration under AfCFTA may follow established patterns: firms initially target neighbouring ECOWAS markets before venturing further afield, with network relationships mediating market selection and entry mode decisions.

2.3 Digital Internationalization Theory

Digital Internationalization Theory (Oviatt & McDougall, 2005; Hervé et al., 2020) explains how digital technologies enable rapid internationalization by reducing information asymmetries, lowering transaction costs, and providing direct market access. For resource-constrained SMEs, digital platforms can substitute for physical presence, enabling market entry that would otherwise be prohibitively expensive. The theory suggests three pathways: Digital Sales Extension (using online channels to reach new markets), Digital Value Chain Integration (embedding in global value chains through digital tools), and Born-Digital Global (enterprises designed from inception for international markets through digital channels).

2.4 Integrated Conceptual Framework

Integrating these perspectives, this study proposes that SME readiness for continental trade integration is shaped by: (1) perceived opportunities arising from AfCFTA provisions; (2) firm-level resources and capabilities (financial, human, technological); (3) external constraints (infrastructure, regulatory, competitive); (4) digital adoption and capabilities; and (5) contextual factors (institutional support, market conditions, cultural factors). The framework recognizes that these elements interact in complex ways. For example, financial resources enable capability development, digital adoption both creates opportunities and exposes challenges, and institutional support moderates the translation of policy into practice.

3.0 Methodology

3.1 Research Design

This study employed a quantitative cross-sectional survey design. The cross-sectional approach was appropriate for capturing contemporary perceptions and experiences of SMEs regarding AfCFTA opportunities, challenges, digitalization, and financial constraints at a specific point in time. The design was both descriptive (summarizing respondent characteristics and perceptions) and correlational (examining relationships among key constructs).

3.2 Sampling and Data Collection

The target population comprised SMEs operating in Ghana engaged in, or with the potential to engage in, cross-border trade under the AfCFTA. The sampling frame was drawn from multiple sources: the Registrar General's Department database, the Association of Ghana Industries (AGI) membership directory, the Ghana Export Promotion Authority (GEPA) exporter register, and the Ghana Free Zones Authority enterprise list. A multi-stage sampling technique was employed: stratified sampling grouped SMEs by sector and size, followed by purposive sampling to select firms directly involved in AfCFTA-related activities.

Sample size was calculated using Yamane's (1967) formula for finite populations: $n = N / (1 + N(e)^2)$, where N = 3,500 (estimated registered SMEs with export potential) and e = 0.05, yielding a target of approximately 359 respondents. Anticipating non-response, 400 questionnaires were distributed, and 350 valid responses were collected (response rate 87.5%).

3.3 Instrumentation

Data were collected using a structured questionnaire with six sections: (A) demographic and professional characteristics; (B) organizational information; (C) perceived AfCFTA-related

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opportunities (10 items); (D) perceived challenges under AfCFTA (10 items); (E) digitization and e-commerce (10 items); and (F) financial constraints (10 items). All items used five-point Likert scales (1 = Strongly Disagree to 5 = Strongly Agree).

Content validity was established through extensive literature review and expert review by three academic specialists. Construct validity was confirmed through factor analysis with loadings above 0.50. Reliability was assessed using Cronbach's alpha: Opportunities (α = 0.87), Challenges (α = 0.84), Digitization (α = 0.89), and Financial Constraints (α = 0.91), all exceeding the 0.70 threshold.

3.4 Data Analysis

Data were analyzed using IBM SPSS Statistics Version 26. Descriptive statistics (frequencies, percentages, means, standard deviations) summarized respondent characteristics and perceptions. Pearson product-moment correlation examined relationships among key variables. Multiple linear regression analyzed predictive relationships with four models: (1) opportunities regressed on challenges; (2) challenges regressed on digitalization and financial constraints; (3) digitalization regressed on opportunities and challenges; and (4) financial constraints regressed on digitalization. Diagnostics confirmed that OLS assumptions were satisfied.

3.5 Ethical Considerations

Ethical approval was obtained from the Institutional Review Board at Desh Bhagat University. Informed consent was obtained from all participants, with assurance of confidentiality, anonymity, and the right to withdraw without penalty. Data were stored on password-protected computers with encrypted backups.

4.0 Results

4.1 Respondent Characteristics

The sample comprised 350 respondents from 29 organizations. The gender distribution was 66.3% male and 33.7% female. The largest age group was 31-40 years (43.1%), followed by 41-50 years (31.7%). Educational attainment was high, with 68.6% holding postgraduate qualifications. In terms of organizational roles, 24.9% were CEOs/founders, 19.1% quality control managers, 14.6% operations managers, and 13.7% export managers. Organizations represented included Agape Moringa Processing (9.4%), Kasapreko Commercial Ltd (6.6%), Ghandour Cosmetics (6.0%), and others across manufacturing sub-sectors. Table 1 & 2 below summarizes the respondents characteristics.

Table 1: Socio-Demographic and Professional Characteristics of Respondents

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	232	66.3
	Female	118	33.7
	Total	350	100.0
Age Range (Years)	21–30	10	2.9
	31–40	151	43.1
	41–50	111	31.7
	51–60	65	18.6
	60 and above	11	3.1
	Total	350	100.0
Level of Education	Undergraduate	92	26.3
	Postgraduate	240	68.6
	Others	18	5.1

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	Total	350	100.0
Position in Organization/Business	CEO / Founder	87	24.9
	Managing Director	20	5.7
	General Manager	5	1.4
	Export Manager	48	13.7
	Operations Manager	51	14.6
	Quality Control Manager	67	19.1
	Chief Account Manager	49	14.0
	Others	23	6.6
	Total	350	100.0

Table 2: Distribution of Respondents by Organization/Business Name

Organization / Business	Frequency (n)	Percentage (%)
AfCFTA NCO	3	0.9
Mazia Co Enterprise	23	6.6
Kussa Shea Bliss	19	5.4
MDB Foods	5	1.4
The Experience Tribe	7	2.0
Agape Moringa Processing	33	9.4
Kasapreko Commercial Ltd	23	6.6
Ghandour Cosmetics	21	6.0
Keda Ghana Ceramics	12	3.4
Benso Oil Palm Plantation	15	4.3
G-Mith Enterprise	14	4.0
EBI Foods	19	5.4
BB Harington Ventures	13	3.7
PwC	4	1.1
Ghana Free Zones	21	6.0
L'Etoile Inc	5	1.4
Anomaa Services	3	0.9

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Tress Haven	3	0.9
All Save Chocolate	17	4.9
Coastal Development Authority	2	0.6
Afcallo Ventures	17	4.9
Osafak Tyres	12	3.4
UKGCC	7	2.0
EXA Ventures	7	2.0
Ministry of Trade, Agribusiness & Industries	4	1.1
TASOTDE	13	3.7
Safosco Ventures	18	5.1
Onrock Firm	8	2.3
Househelp Simplified Ltd	2	0.6
Total	350	100.0

4.2 Perceived AfCFTA Opportunities

Respondents demonstrated strong positive perceptions of AfCFTA opportunities. Market access was the most widely recognized benefit, with 67.1% strongly agreeing and 21.7% agreeing that AfCFTA provides opportunities to access larger markets. No respondents disagreed with this statement. Regional trade agreements enhancing international expansion received 57.7% strong agreement. Reduced trade tariffs boosting SME productivity received 50.3% strong agreement.

Cross-border collaboration was recognized by 43.1% (strongly agree) and 37.7% (agree). Innovation support was acknowledged by 37.7% (strongly agree) and 47.7% (agree). Product diversification showed more variation, with 55.1% agreeing and 23.7% strongly agreeing, though 17.1% remained neutral. Government support through AfCFTA was perceived as promoting SME participation by 47.7% (agree) and 33.1% (strongly agree). Table 3 below summarizes Perceived AfCFTA-Related Opportunities.

Table 3: Perceived AfCFTA-Related Opportunities for Ghanaian SMEs (n = 350)

Statement	SD n (%)	D n (%)	N n (%)	A n (%)	SA n (%)	Total
AfCFTA provides Ghanaian SMEs with opportunities to access larger markets	–	–	39 (11.1)	76 (21.7)	235 (67.1)	350
Reduced trade tariffs under AfCFTA have significantly boosted SME productivity	2 (0.6)	28 (8.0)	49 (14.0)	95 (27.1)	176 (50.3)	350
Increased regional trade agreements enhance SMEs' international expansion	–	10 (2.9)	38 (10.9)	100 (28.6)	202 (57.7)	350

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AfCFTA encourages SMEs to diversify their products	3 (0.9)	11 (3.1)	60 (17.1)	193 (55.1)	83 (23.7)	350
AfCFTA reduces the cost of exporting goods for Ghanaian SMEs	8 (2.3)	22 (6.3)	71 (20.3)	134 (38.3)	115 (32.9)	350
SMEs are increasingly aware of AfCFTA-related business prospects	27 (7.7)	40 (11.4)	38 (10.9)	211 (60.3)	34 (9.7)	350
AfCFTA supports innovation among Ghanaian SMEs	2 (0.6)	6 (1.7)	43 (12.3)	167 (47.7)	132 (37.7)	350
AfCFTA facilitates collaboration between SMEs across Africa	–	13 (3.7)	54 (15.4)	132 (37.7)	151 (43.1)	350
Access to international partnerships has improved under AfCFTA	3 (0.9)	33 (9.4)	45 (12.9)	169 (48.3)	100 (28.6)	350
Government support through AfCFTA boosts SMEs' participation in trade	6 (1.7)	19 (5.4)	42 (12.0)	167 (47.7)	116 (33.1)	350

Note: SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree.

Correlation analysis revealed a weak but significant positive relationship between opportunities and challenges ($r = 0.152$, $p < 0.01$). Regression analysis confirmed that challenges significantly predict opportunities ($\beta = 0.152$, $p = 0.004$), though the model explained only 2.3% of variance ($R^2 = 0.023$). Table 4 & 5 below summarizes Correlation Between Perceived Opportunities and Challenges and Regression of Perceived Opportunities on Challenges.

Table 4: Correlation Between Perceived Opportunities and Challenges (Objective 1, n = 350)

Variables	Opportunities	Challenges
Opportunities	1	0.152**
Challenges	0.152**	1

Note: $p < 0.01$, two-tailed; N = 350.

Table 5: Regression of Perceived Opportunities on Challenges (Objective 1, n = 350)

Model	Predictor	B	Std. Error	Beta	t	Sig.	F	Sig. (F)	R^2
1	Constant	34.649	2.224	–	15.578	0.000	8.275	0.004	0.023
	Challenges	0.162	0.056	0.152	2.877	0.004			

Dependent Variable: Opportunities

4.3 Challenges Facing SMEs

Financial constraints emerged as the most significant challenge, with 48.9% strongly agreeing and 39.1% agreeing that limited financial resources hinder participation in international trade. Infrastructure inadequacy was identified by 56.6% (strongly agree) and 33.4% (agree) as affecting operational efficiency. Poor logistics and transportation were cited by 56.0% (strongly agree) as limiting market expansion.

SMEs' lack of preparedness to navigate AfCFTA challenges was particularly striking: 64.3% agreed, and 22.0% strongly agreed that firms are insufficiently prepared. Political instability in other AfCFTA countries was seen as a major concern by 54.9% (strongly agree) and 31.4%

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(agree). Lack of information on AfCFTA policies was identified by 53.1% (agree) and 20.6% (strongly agree). Compliance with international standards was viewed as a financial burden by 51.7% (agree) and 29.7% (strongly agree). Table 6 below summarizes the Perceived Challenges Facing Ghanaian SMEs under AfCFTA.

Table 6: Perceived Challenges Facing Ghanaian SMEs under AfCFTA

Statement	SD n (%)	D n (%)	N n (%)	A n (%)	SA n (%)	Total
SMEs face significant regulatory barriers under AfCFTA	49 (14.0)	101 (28.9)	62 (17.7)	76 (21.7)	62 (17.7)	350
High competition from international players limits SMEs' market share	19 (5.4)	122 (34.9)	69 (19.7)	84 (24.0)	56 (16.0)	350
Limited financial resources hinder SMEs' participation in international trade	13 (3.7)	3 (0.9)	26 (7.4)	137 (39.1)	171 (48.9)	350
Inadequate infrastructure affects SMEs' efficiency in AfCFTA markets	–	11 (3.1)	24 (6.9)	117 (33.4)	198 (56.6)	350
Cultural and language barriers restrict SMEs' international growth	3 (0.9)	19 (5.4)	109 (31.1)	134 (38.3)	85 (24.3)	350
Lack of information on AfCFTA policies challenges SME participation	11 (3.1)	2 (0.6)	79 (22.6)	186 (53.1)	72 (20.6)	350
Compliance with international standards poses financial burdens	6 (1.7)	4 (1.1)	55 (15.7)	181 (51.7)	104 (29.7)	350
Poor logistics and transportation limit SMEs' market expansion	4 (1.1)	–	55 (15.7)	95 (27.1)	196 (56.0)	350
SMEs are insufficiently prepared to navigate AfCFTA challenges	7 (2.0)	20 (5.7)	21 (6.0)	225 (64.3)	77 (22.0)	350
Political instability in other AfCFTA countries affects SME operations	11 (3.1)	9 (2.6)	28 (8.0)	110 (31.4)	192 (54.9)	350

Note: SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree.

Correlation analysis revealed moderate positive relationships: challenges correlated with financial constraints ($r = 0.474$, $p < 0.01$) and with digitalization ($r = 0.334$, $p < 0.01$). Regression analysis showed that both digitalization ($\beta = 0.153$, $p = 0.004$) and financial constraints ($\beta = 0.406$, $p < 0.001$) significantly predict challenges, with the model explaining 24.3% of variance ($R^2 = 0.243$). Table 7 & 8 below summarizes the Pearson Correlation among Challenges, Digitalization & E-commerce, and Financial Constraints and Multiple Regression Predicting Challenges Facing SMEs under AfCFTA.

Table 7: Pearson Correlation among Challenges, Digitalization & E-commerce, and Financial Constraints

Variable	1	2	3
1. Challenges	1		

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2. Digitalization & E-commerce	0.334**	1	
3. Financial Constraints	0.474**	0.447**	1

Note: $p < 0.01$ (2-tailed)

Table 8: Multiple Regression Predicting Challenges Facing SMEs under AfCFTA

Predict	B	Std. Error	Beta	t	Sig.
Constant	13.462	2.513	–	5.357	.000
Digitalization & E-commerce	0.158	0.054	0.153	2.925	.004
Financial Constraints	0.449	0.058	0.406	7.774	.000

Model Summary: $F(2, 347) = 55.776$, $p < .001$, $R^2 = 0.243$

4.4 Digitalization and E-commerce

Strong positive perceptions of digitalization's impact were evident. Digitalization enhancing international competitiveness received 65.4% strong agreement. E-commerce platforms facilitating international expansion received 69.1% strong agreement. Social media as an effective engagement tool received 69.1% strong agreement, with no respondents disagreeing.

However, significant adoption barriers emerged. Cybersecurity concerns were identified by 54.0% (strongly agree) and 24.9% (agree) as hindering digital adoption. High technology costs were cited by 48.3% (agree) and 34.6% (strongly agree) as limiting digital transformation. Internet accessibility issues were reported by 47.4% (strongly agree) and 38.0% (agree). Lack of technical expertise was identified by 53.7% (agree) and 28.6% (strongly agree). Insufficient training programs were noted by 55.1% (agree) and 23.7% (strongly agree). Table 9 below summarizes the Perceptions of Digitalization and E-commerce Among Ghanaian SMEs.

Table 9: Perceptions of Digitalization and E-commerce Among Ghanaian SMEs (n = 350)

Statement	SD n (%)	D n (%)	N n (%)	A n (%)	SA n (%)	Total
Digitalization has improved the international competitiveness of SMEs	–	4 (1.1)	37 (10.6)	80 (22.9)	229 (65.4)	350
E-commerce platforms make it easier for SMEs to expand internationally	–	4 (1.1)	27 (7.7)	77 (22.0)	242 (69.1)	350
Social media is an effective tool for SMEs' global engagement	–	–	41 (11.7)	67 (19.1)	242 (69.1)	350
Digital payment systems enhance SMEs' efficiency in international trade	–	18 (5.1)	36 (10.3)	165 (47.1)	131 (37.4)	350
SMEs are actively adopting digital technologies for global competitiveness	8 (2.3)	16 (4.6)	53 (15.1)	194 (55.4)	79 (22.6)	350
Cybersecurity concerns hinder SMEs' digital adoption	2 (0.6)	18 (5.1)	54 (15.4)	87 (24.9)	189 (54.0)	350

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High costs of technology limit SMEs' digital transformation	–	10 (2.9)	50 (14.3)	169 (48.3)	121 (34.6)	350
Training programs are insufficient for SMEs' digital capacity building	–	24 (6.9)	50 (14.3)	193 (55.1)	83 (23.7)	350
Lack of technical expertise restricts SMEs' use of digital platforms	–	11 (3.1)	51 (14.6)	188 (53.7)	100 (28.6)	350
Internet accessibility issues challenge SMEs' global reach	–	15 (4.3)	36 (10.3)	133 (38.0)	166 (47.4)	350

Note: SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree.

Correlation analysis showed a moderate positive relationship between digitalization and opportunities ($r = 0.374$, $p < 0.01$). Regression analysis revealed that both opportunities ($\beta = 0.330$, $p < 0.001$) and challenges ($\beta = 0.284$, $p < 0.001$) significantly predict digital adoption, with the model explaining 21.8% of variance ($R^2 = 0.218$). Tables 10 & 11 below summarizes the Correlation Between Digitalization & E-commerce and Perceived Opportunities and Multiple Regression Predicting Digitalization & E-commerce.

Table 10: Correlation Between Digitalization & E-commerce and Perceived Opportunities

Variables	1	2
1. Digitalization & E-commerce	1	.374**
2. Opportunities	.374**	1

Note: Correlation is significant at the 0.01 level (2-tailed).

Table 11: Multiple Regression Predicting Digitalization & E-commerce – Objective 3 (n = 350)

Predictor	B	Std. Error	Beta	t	Sig.
Constant	19.416	2.358	–	8.235	0.000
Opportunities	0.300	0.044	0.330	6.879	0.000
Challenges	0.274	0.046	0.284	5.903	0.000

Model Summary: $F(2, 347) = 48.397$, $p < 0.001$, $R^2 = 0.218$
Dependent variable: Digitalization & E-commerce

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4.5 Financial Constraints

Financial constraints were pervasive. Access to affordable credit was the most pressing issue, with 66.9% strongly agreeing that SMEs struggle to access credit. Cash flow challenges were identified by 56.3% (strongly agree) and 30.9% (agree) as hindering competitiveness. High transaction costs were reported by 50.9% (strongly agree) and 32.9% (agree). Compliance costs were viewed as a financial burden by 42.6% (strongly agree) and 41.1% (agree).

Regarding support mechanisms, 57.7% agreed, and 24.6% strongly agreed that government subsidies are insufficient. Grants were seen as essential by 62.0% (agree) and 24.9% (strongly agree). Financial management training was identified as needed by 55.4% (agree) and 30.0% (strongly agree). Venture capital was viewed as critical for international growth by 64.6% (agree) and 26.3% (strongly agree). Trade credit insurance was seen as confidence-building by 45.7% (strongly agree) and 42.3% (agree). Table 12 below summarizes the Descriptive Analysis of Financial Constraints Affecting SMEs under AfCFTA.

Table 12: Descriptive Analysis of Financial Constraints Affecting SMEs under AfCFTA

Statement	Strongly Disagree %	Disagree %	Neutral %	Agree %	Strongly Agree %
SMEs struggle with accessing affordable credit	0.6	2.0	10.3	20.3	66.9
High transaction costs are a barrier to international trade	–	1.7	14.6	32.9	50.9
Limited working capital reduces SMEs global competitiveness	–	–	7.7	47.4	44.9
SMEs need financial management training	–	2.0	12.6	55.4	30.0
Venture capital is critical for SMEs international growth	1.1	–	8.0	64.6	26.3
Compliance costs burden SMEs financially	1.4	0.9	14.0	41.1	42.6
Government subsidies are insufficient	1.4	1.1	15.1	57.7	24.6
Grants are essential for SMEs participation	1.1	3.1	8.9	62.0	24.9
Cash flow challenges hinder competitiveness	0.3	–	12.6	30.9	56.3
Trade credit insurance boosts confidence	0.3	2.0	9.7	42.3	45.7

Note: SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree.

Correlation analysis showed a moderate positive relationship between financial constraints and digitalization ($r = 0.447$, $p < 0.01$). Regression analysis confirmed that digitalization significantly predicts financial constraints ($\beta = 0.447$, $p < 0.001$), explaining 19.9% of variance ($R^2 = 0.199$). Table 13 & 14 below summarizes the Correlation Analysis for Objective 4 – Relationship between

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Financial Constraints and Digitalization & E-commerce and Regression Analysis of Financial Constraints Predicted by Digitalization & E-commerce.

Table 13: Correlation Analysis for Objective 4 – Relationship between Financial Constraints and Digitalization & E-commerce

Variable	Financial Constraints	Digitalization & E-commerce
Financial Constraints	1	.447**
Digitalization & E-commerce	.447**	1

Note: Correlation is significant at the 0.01 level (2-tailed).

Table 14: Regression Analysis of Financial Constraints Predicted by Digitalization & E-commerce

Predictor / Statistic	B	Std. Error	Beta	t	Sig.
Constant	24.777	1.915	–	12.939	.000
Digitalization & E-commerce	0.418	0.045	0.447	9.312	.000

Model Summary: $F(1, 348) = 86.709$, $p < .001$, $R^2 = 0.199$

5.0 Discussion

5.1 The Policy-Practice Gap

The findings reveal a substantial gap between AfCFTA policy aspirations and SME-level realities. While Ghanaian manufacturing SMEs demonstrate strong awareness and optimism regarding AfCFTA opportunities, particularly in market access and collaboration, they face binding constraints that prevent translating these opportunities into engagement. This gap manifests across multiple dimensions: financial, infrastructural, informational, and digital.

The predominance of financial constraints (87.2% agreement) as the primary barrier aligns with extensive literature documenting shortfalls in SME financing in Africa (Beck & Demirgüç-Kunt, 2006; Quartey et al., 2017). What is particularly striking is the persistence of this constraint despite decades of policy attention. The finding that 66.9% of respondents strongly agree that affordable credit is inaccessible suggests that existing interventions government credit schemes, central bank measures, development finance institution programs have not adequately addressed SME financing needs. This implies that trade liberalization alone, without accompanying financial sector reforms, cannot enable SME participation in regional markets.

The infrastructure findings (89.0% reporting inadequacy) highlight the systemic nature of constraints. Poor roads, unreliable electricity, inadequate ports, and weak digital connectivity raise transaction costs and erode competitiveness. As Portugal-Perez and Wilson (2012) demonstrate, infrastructure deficiencies increase African transportation costs by 30-40% relative to other regions. For SMEs with limited margins, these cost penalties can make otherwise viable trade opportunities unprofitable.

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5.2 The Digital Paradox

The study reveals what can be termed a "digital paradox": while SMEs recognize digitalization's transformative potential (88.3% agree it enhances competitiveness), they face significant barriers to adoption. This aspiration-implementation gap is particularly concerning because digital technologies could potentially mitigate other constraints, reducing information asymmetries, lowering transaction costs, and providing market access.

The finding that both opportunities ($\beta = 0.330$) and challenges ($\beta = 0.284$) predict digital adoption is theoretically significant. It suggests that SMEs adopt digital technologies not only for opportunity-seeking (an offensive strategy) but also for problem-solving (a defensive strategy). This dual-driver model extends technology acceptance theories (Davis, 1989) by demonstrating that in resource-constrained contexts, problem-solving motivations may be as important as perceived usefulness.

The positive relationship between digitalization and financial constraints ($r = 0.447$) reveals another dimension of the paradox: digital adoption itself creates financial demands technology investment, platform fees, marketing costs, compliance requirements that financially constrained SMEs struggle to meet. This finding challenges simplistic narratives of digitalization as a cost-saving solution and suggests that digital transformation requires complementary financial support.

5.3 Theoretical Implications

The findings contribute to several theoretical domains. First, they extend the Resource-Based View by demonstrating that financial resources serve as foundational capabilities upon which other capabilities are built. Without adequate financial resources, firms lack the capacity to develop higher-order capabilities (marketing, innovation, quality control) that RBV theory identifies as sources of competitive advantage. This suggests a tiered model of resource development where financial resources enable capability development.

Second, the findings advance understanding of the Uppsala Model in African contexts. While incremental internationalization remains relevant, digital technologies and regional integration can accelerate or bypass traditional stages. The model's emphasis on networks is particularly salient: personal connections, diaspora ties, and business associations mediate market selection and entry modes. However, the study suggests that network benefits may be unevenly distributed, with better-resourced firms better positioned to leverage network relationships.

Third, the dual-driver model of digital adoption extends Digital Internationalization Theory by demonstrating that both opportunity-seeking and problem-solving motivations drive technology adoption. This is particularly relevant in developing-country contexts, where firms face significant operational challenges that digital technologies can help address.

5.4 Practical Implications

The findings have clear implications for policymakers, financial institutions, and SME support organizations. For policymakers, the predominance of financial constraints suggests that financial inclusion should be a cross-cutting priority in AfCFTA implementation strategies. Dedicated trade finance facilities, credit guarantee schemes, and innovative financing mechanisms tailored to SME needs are essential. These should address not only working capital requirements but

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also trade-specific financial needs, including pre-shipment finance, export credit insurance, and payment facilitation.

The infrastructure findings call for continued investment in trade-related infrastructure, transportation networks, border processing facilities, and digital infrastructure. Given the scale of investment required, public-private partnership models should be explored to mobilize private capital and expertise. Importantly, infrastructure investments should focus on "last mile" infrastructure that directly impacts SMEs, such as trade logistics hubs and streamlined border clearance procedures.

The digital adoption barriers identified cybersecurity concerns, technology costs, skills gaps, and internet connectivity suggest specific intervention priorities. Cybersecurity awareness programs, subsidized technology services, practical digital skills training, and improved internet infrastructure in underserved areas are all needed. The interconnected nature of these barriers suggests that integrated approaches addressing multiple constraints simultaneously would be most effective.

For financial institutions, the findings highlight the need for SME-friendly financial products with repayment schedules aligned with export cycles, trade finance products that mitigate cross-border risks, and technology adoption loans with appropriate terms. Simplified lending procedures and alternative credit assessment methods based on business potential rather than traditional collateral are also needed.

6.0 Conclusion

This study assessed the readiness of Ghanaian manufacturing SMEs for continental trade integration under the AfCFTA framework. The findings reveal a significant gap between policy aspirations and firm-level realities. While SMEs demonstrate strong awareness and optimism regarding AfCFTA opportunities, they face binding constraints, particularly financial constraints and infrastructure deficits, that prevent them from translating these opportunities into engagement. Digitalization offers transformative potential but faces adoption barriers that create a "digital aspiration-implementation gap." Financial constraints and digitalization are not separate issues but are directly interconnected, with digital adoption both requiring and creating financial demands.

Theoretically, the study extends the Resource-Based View by demonstrating the foundational role of financial resources, advances understanding of the Uppsala Model in African contexts, and extends Digital Internationalization Theory through a dual-driver model of adoption. In practice, the findings call for integrated policy approaches that address financial, infrastructural, digital, and capacity constraints simultaneously.

The success of AfCFTA will ultimately be measured not by aggregate trade statistics but by the extent to which SMEs, the engines of job creation and economic development, can participate in and benefit from this transformative initiative. This study provides the evidence needed to guide policies and programs that can make this goal a reality.

7.0 Limitations and Future Research

This study has several limitations. The cross-sectional design captures perceptions at a single point in time and cannot analyze changes over time. The geographical scope is limited to Ghana,

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and findings may not be generalizable to other African contexts. The sample, while diverse, may over represent firms already engaged with formal business networks. Self-reported data may be subject to response biases. Future research should employ longitudinal designs to track SME experiences as AfCFTA implementation progresses, conduct comparative studies across multiple African countries, use qualitative methods to capture the richness of SME experiences, and examine sector-specific dynamics in greater depth.

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