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Factors influencing the financial satisfaction of MSME owners: the mediating role of access to Islamic financing

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Abstract

Purpose – The purpose of this study is to extend the extant literature on the relationship between financial risk tolerance (FRT), awareness of Islamic financial principles (AWIF) and positive financial behaviour (FB) on financial satisfaction (FS) of micro, small and medium enterprise (MSME) owners by principally investigating the mediating effect of access to Islamic financing (AIF) on these relationships.

Design/methodology/approach – A quantitative survey method of data collection through a self-administered questionnaire. The sample of 384 MSME owners was selected in which 208 questionnaires were retrieved and analysed using the partial least square structural equation modelling (SEM).

Findings – The result shows that the relationships between FRT and AIF as well as FB and AIF are not significant. However, the AWIF–AIF relationship was found to be positively significant. Moreover, only the mediating effect of AIF on the AWIF–FS relationship was established.

Practical implications – The result implies that AIF could strongly influence the FS of MSME owners, and the AWIF–FS relationship is better explained with sufficient AIF. However, AIF could not mediate the relationships between FRT–FS and FB–FS. Therefore, policymakers and MSME owners should emphasize on AWIF and AIF to enhance FS.

Originality/value – This study pioneers the examination of the mediating influence of AIF on FRT, AWIF, FB and FS of MSME owners in a single framework. Despite the importance of MSME owners on economic sustainability, literature on MSME owners' FS is lacking expressly among developing countries, particularly in Nigeria. This study also revealed new theoretical and practical knowledge by illuminating the mediating effect of AIF on AWIF–FS relationship.

Keywords Financial risk tolerance, Entrepreneurship and small business Management, Financial satisfaction, Access to Islamic financing, MSME owners, Awareness of Islamic financial principles, Positive financial behaviour

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1. Introduction

In most economies across the globe, SMEs are the backbone for economic growth that significantly contributes to capital accumulation and employment opportunities (Biancone and Radwan, 2014). According to Hajjar (2020), micro, small and medium enterprises (MSMEs) in Islamic countries accounted for 53.2 enterprises per 1,000 population, more than twice the global rate of 25.2 enterprises per 1,000 population.

However, the emergence of coronavirus disease of 2019 (COVID-19) has become a great threat to the survival of MSMEs across the globe. In particular, the COVID-19 pandemic has created serious challenges for MSMEs in Nigeria, necessitating many to change from normal operational activities to crisis management and solutions to their problems (Falokun, 2020). This is not only the case in Nigeria but the entire world. Strategies took to reduce the spread of the virus, such as social distancing, quarantines, restriction of movements and quarantines, provide no option to MSME owners than to consume their capital.

For long, financial constraint is among the key problems faced by MSMEs (Lajis, 2017). The emergence of the COVID-19 pandemic has made this financial constraint worst. Fortunately, during the extraordinary meeting of the G20 Heads of State at the centre of the global battle against the socio-economic impact of the COVID-19 pandemic, the sum of $5tn was proposed to support MSMEs worldwide because of the role they play in the global economy (Hajjar, 2020). Because of the contributions of micro and small enterprises (MSEs) to the provision of employment opportunities, both government and non-governmental organizations are required to facilitate adequate access to finance for them (Kebede and Abera, 2014). However, conventional financial system is believed to be hampering SMEs from fairer access to finance because of their apparent high risk (Lajis, 2017).

On the other hand, Islamic finance has been described as a crucial alternative and engine block in the global financial market as it impressively proved its significant resistance to the previous global financial crisis (Mahmoud and Abduh, 2014). The global Islamic finance industry sustained its growth momentum to witness a remarkable overall growth of 10.7% year-on-year, despite the Covid-19 triggered challenges in 2020 (IFSB, 2021). Nevertheless, most of the growth is recorded in the gulf cooperation countries (GCC) and south Asia. Compared to the GCC and Southeast Asian countries, Islamic finance activities and institutions are less developed in the African markets, but likely to significantly expand in the next 5–10 years, owing to the continent's enormous financing needs, driven by increasing government interest, low starting base and the vigorous demographic and economic growth in Muslim-majority states. Notwithstanding the underdevelopment of the Islamic finance industry in Nigeria, the share of Islamic banking has increased from 0.3% to 0.7% (IFSB, 2021). Specifically, three additional Islamic banks emerged between November 2019 and December 2021 and began full operations in Nigeria, namely, Taj Bank, Lotus Bank and Alternative Bank Limited, because of the growth in demand for Islamic bank's financial products and services in the country (Central Bank of Nigeria, 2022; Business Compiler, 2022).

Nigeria is one of the countries emerging in Islamic finance in Africa, due to the size of its Muslim population (IFSB, 2021). But majority of Muslim MSME owners are disadvantaged when it comes to access to finance, as a result of the dominance of both private and government funding sources by interest based financial institutions. Even before the Covid-19 pandemic, financial interventions that are championed by governments put the Muslim entrepreneurs at disadvantage, because they are channeled through interest based financial institutions which are not Shari'ah compliant. Umar *et al.* (2020) strongly recommended creating Islamic-based funds by the Central Bank of Nigeria (CBN) to enable Muslim MSME owners to access such funds. Fortunately, the CBN recently released guidelines for Agri-Business, Small and Medium

Enterprises Investment Scheme (AGSMEIS) which is based on Islamic financial principles. This came as a respite to Muslim entrepreneurs because, because the risk associated with Islamic finance is very low (Lajis, 2017; Franzoni and Ait Allali, 2018). Thus, access to Shari-ah compliant fund is likely to satisfy the Muslim MSME owners financially.

This study will illuminate the role of access to Islamic financing (AIF) in explaining the relationship between financial risk tolerance (FRT), awareness of Islamic financial principles (AWIF), and positive financial behaviour (FB) on the financial satisfaction (FS) of MSME owners in the context of Nigeria. Despite evidence that FRT attitude (Jeong and Hanna, 2004; Winarta and Pamungkas, 2021), awareness of Islamic finance principles (Xiao and Porto, 2017) and FB (Xiao *et al.*, 2009; Falahati *et al.*, 2012; Arifin, 2018) could promote the FS of MSME owners, the role of AIF on these relationships are yet to be explored. This study will promote and strengthen the position of Islamic financing in Nigeria and stimulate its development.

2. Literature review and hypotheses development

2.1 Financial satisfaction

FS is a subset of financial well-being which has no universally accepted definition (Ritsalu and Marakas, 2019). Therefore, the concept has been defined in various ways by different individuals. FS means satisfaction with the personal financial situation (Joo and Grable, 2004). FS could occur because of a good financial decisions process and good financial knowledge (Arifin, 2018). FS is also the feeling that someone can accomplish certain financial goals or achieve certain specific financial needs (Sahi, 2017). Therefore, FS is all about life fulfilment and is subjective (Xiao and O'Neill, 2018). As the subjective measure of financial well-being, FS demonstrates the level of satisfaction individuals perceive about different aspects of their financial situation (Sahi and Kalra, 2013). In other words, FS measures subjective well-being, which comprises several phenomena and covers people's relative and emotional evaluation of their whole life (Diener *et al.*1999).

2.2 Access to Islamic finance

Access to finance simply means the ability to obtain funds by individuals and businesses to provide employment opportunities, revitalize firms' operations and achieve economic growth and development. According to Claessens (2006), access to financial services encompasses many dimensions ranging from availability, reliability, continuity, cost, convenience and many more; therefore, its definition is not that easy. Accessing finance is among the stumbling blocks of MSMEs during their commencement and operations (Kebede and Abera, 2014). Lack of access to finance could affect the operations of firms and their growth potential (Adomako *et al.*, 2016; Beck and Demirguc-Kunt, 2006).

In developing countries, MSMEs are faced with poor access to finance due to collateral requirements by conventional financial institutions (Sahar, 2010) and fixed/variable interest rates, which make it riskier for MSMEs to adopt (Al Balushi *et al.*, 2019). Islamic finance is any Shari'ah compliant profit and loss sharing financial instruments used to meet people or organizations' financial needs (Al Balushi *et al.*, 2019). However, Islamic finance is not only limited to Muslim countries but also taken to other non-Muslim countries where there exists a sizable Islamic community (Maswadeh, 2015). Consequently, this has made it possible to have established many Shariáh-compliant banks in America, Europe and Australia.

2.3 Financial risk tolerance

FRT is the willingness to take a financial risk (Saurabh and Nandan, 2019). Sulaiman (2012) defined risk tolerance as an ultimate number of variability fluctuations an investor can

freely accept in making a financial decision. Risk tolerance is informally called the "sleep factor", which signifies the level of risk at which one can stand firm without losing sleep at night (Saurabh and Nandan, 2019). Similarly, Cordell (2001) defined FRT as the ultimate amount of volatility a person (an investor) can take when undertaking a financial decision with probable loss. Risk tolerance is a fundamental factor within financial planning models, investment suitability analyses and consumer decision frameworks (Grable, 2016). FRT influences how people invest their wealth to achieve both their short-term and long-term goals. Risk tolerance entails the level of uncertainty that one may accept for his/her financial decisions (Winarta and Pamungkas, 2021). According to Corter and Chen (2006), investment risk tolerance is a domain-specific trait that differs among individuals and could reliably be used to predict investment behaviour.

2.4 Awareness of Islamic financial principles

One thing that clearly pointed out the current status of awareness and knowledge of Islamic financial principles is the extent to which the industry is growing across the globe, particularly after the global financial crisis. This is because Islamic finance is currently practised widely across the world in both Muslim and non-Muslim countries due to its stability during the financial crisis as well as ethical principles (Biancone and Radwan, 2014). Hidayat and Al-Bawardi (2012) found that even non-Muslim expatriates in Saudi Arabia have awareness and prior Islamic banking exposures.

Academic and professional institutions play a vital role in spreading awareness and knowledge of Islamic banking and finance (Umar *et al.*, 2021). Today, many educational institutions and centres promote awareness and knowledge of Islamic banking and finance, not only in Islamic countries but also in the Western world. Moreover, the activities of various Islamic economics and finance institutions, such as the Islamic Development Bank, Islamic Financial Service Board (IFSB), Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) and International Islamic Liquidity Management Corporation (IILM), have promoted the awareness and knowledge of Islamic Accounting, Economics and Finance through various collaborations across the globe.

2.5 Positive financial behaviour

Financial behaviour is relevant to money management which entails cash, credit and saving behaviours (Xiao, 2008). It is the individual responsibility in money management, especially when budgeting and assessing priority (Andarsari and Ningtyas, 2019). Similarly, FB broadly covers four areas: saving, spending, borrowing and investment (Sudindra and Naidu, 2018). Individuals differ in their habits and therefore, the FB of an individual is affected by various factors like family advice, knowledge about finance, peer groups, advertisements, economic status, marital status, outlook towards the future and income levels, among others (Sudindra and Naidu, 2018).

FB is said to be positive when it enables one to maintain financial stability with financial resources, which is promoted when one's financial literacy is improved (Patel *et al.*, 2016). When FB is positive, it is expected to enhance financial well-being (Xiao *et al.*, 2009). In other words, individuals that have positive FB are expected to make rational decisions concerning their cash in hand and at the bank, expenses, borrowing, investments and savings in such a way to become financially satisfied.

2.6 Financial risk tolerance attitude and access to Islamic financing

FRT is an essential factor that can influence access to general financing. FRT is the maximum amount of uncertainty an individual or organization is ready to accept in relation

to the outcome of a potentially negative or uncertain decision (Nobre and Grable, 2015). MSME owners tend to be reluctant to secure finance from conventional banks due to the greater level of risks involved such as the requirement to present collateral and high-interest rates, which make it difficult for MSMEs to obtain finance from the formal conventional banking sector (Alaa Alaabed and Mirakhor, 2017). Therefore, conventional debt-based financing impedes SMEs from accessing finance because of their perceived high risks (Lajis, 2017). In conventional financial institutions, risks are transferred to the borrowers and not shared among the parties. However, Islamic financing provides a better alternative to MSMEs as it promotes risk-sharing principles through *mudarabah* and *musharakah* (Khandelwal and Aljifri, 2021; Jamshidi and Kuanova, 2022). Based on these arguments, Islamic financing will lower the risks of financing for individuals and organizations and enhance their FRT to accept Islamic financing as the best rational form of funding.

Risk-sharing system is considered the true function of Islamic finance that facilitates the activities of real sector and discourages the emergence of a "paper economy that gradually disconnects finance from the real sector (Askari and Mirakhor, 2014). According to Alaa Alaabed and Mirakhor (2017), Islamic finance strongly supports real sector transactions by promoting risk-sharing contracts and advocates the best modelling for a more universally and intrinsically feasible financial system. As FRT is the willingness to take financial risks (Saurabh and Nandan, 2019), MSME owners will prefer to access Islamic financing than conventional financing because the risk is shareable in the case of Islamic financing. This indicates that the risk is tolerable, as it is expected to be shared among the participants in Islamic contracts. Hence, it is hypothesized that:

H1. FRT attitude will positively influence AIF.

2.7 Awareness of Islamic finance principles and access to Islamic financing

Some studies have shown the importance of awareness and knowledge to access finance. For instance, Kebede and Abera (2014) found educational level to be among the essential factors that affect access to credit by MSEs. The relationship between awareness of Islamic financial instrument and the positive perceptions of Islamic mode of financing was found to be significant in Nigeria (Ahmad and Isah, 2018). However, Mahmoud and Abduh (2014) established awareness as a key factor that significantly and positively determined the patronization of Islamic banks products in Mauritania. Similarly, Kaakeh *et al.* (2018) found awareness to have strongly influenced the use of Islamic finance among Spain minority Muslims.

Nisa and Zulkifli (2022) also found that AWIF principles positively affects the decision of students in using Islamic finance products in Indonesia. Islam and Rahman (2017) further acknowledged that the majority of Indian Muslim population are willing to embrace Islamic financing if properly informed. Moreover, Al Balushi *et al.* (2019) found that knowledge of the adoption of Islamic finance has a significant positive influence on the adoption of Islamic finance among Omani SME owner-managers. Briefly, it can be concluded that AWIF principles is an essential factor that can influence AIF. Hence, it is hypothesized that:

H2. Awareness of Islamic finance principles will positively influence AIF.

2.8 Positive financial behaviour and access to Islamic financing

Xiao (2008) described financial behaviour as any human behaviour that assists someone in managing money. Financial behaviour entails acquiring, allocating and using financial resources oriented to achieve certain goals (Topa *et al.*, 2018). Broadly speaking, financial

behaviour encompasses four areas, namely saving, spending, borrowing and investment (Sudindra and Naidu, 2018). According to Henager and Cude (2016), financial behaviour can be long-term (like saving and investing behaviours) and short-term behaviour (like spending and emergency saving behaviours). Poor financial behaviours might bring negative consequences, such as temporary or chronic debts, unable to settle utility bills or filing for bankruptcy (Topa *et al.*, 2018).

However, suppose a person can manage monetary resources positively; in that case, it is a clear indication that he can manage other resources (like time) that can achieve positive spillover effects on other domains of life (Xiao *et al.*, 2009). The investment aspect of financial behaviour is linked to AIF. Going by the above points, it can be deduced that FB guides a person to access finance and maximize his wealth to become financially satisfied. FB is related to the individual's state of mind, and judgment on finances, which serves as an imperative financial variable that influence the financial outcomes of individuals (Magli, Sabri and Rahim, 2020). For instance, Poh and Sabri (2017) found that an increase in financial behaviour can significantly increase a person's financial standing. Specifically, due to the low level of risk associated with Islamic financing, MSME owners with FB are likely to access Islamic financing. Thus, it is hypothesized that:

H3. FB will positively influence AIF.

2.9 Access to Islamic financing and financial satisfaction

Given the importance of access to finance and its costs on SMEs (Ćehajić and Košak, 2022) the growth of firms due to access to funding suggests the FS of firm owners. The literature confirms the significant impact of access to finance on firm growth (Adomako *et al.*, 2016). Bongomin *et al.* (2017) found that the relationship between access to finance and growth is positively significant among SMEs in Uganda. Kalaipriya (2018) also found that access to finance has a significant positive relationship with SME growth in Sri Lanka. These findings can explain how access to finance could translate to business owners' financial well-being.

In particular, studies also proved the extent to which access to Islamic finance improves the satisfaction of Islamic bank customers. For example, empirical results on a sample of poor borrowers in Argentina shows that, access to microfinance has a positive significant impact on life satisfaction (Becchetti and Conzo, 2013). Likewise, Bialowolski and Weziak-Bialowolska, (2021) revealed that external financing in a US sample is associated with increase life satisfaction in the long term. Hidayat and Al-Bawardi (2012) explored the level of satisfaction with Islamic finance products by non-Muslim bank customers in Saudi Arabia, and found that access to Islamic banking products helps in meeting their diverse financial needs. Moreover, Maswadeh (2015) found that Jordanian SMEs who access Islamic financing are relatively satisfied with almost all the products offered.

Thus, satisfaction with the quality of Islamic finance accessed by small business owners and the resulting business growth that comes with access to Islamic finance could increase FS among MSME owners. Therefore, this study hypothesized that:

H4. AIF will positively influence FS.

2.10 Mediating role of access to Islamic financing

The Islamic finance principle of risk-sharing requires the contracting parties to mutually share both risk and reward (Lajis, 2017). In other words, the principle of Islamic finance permits profit and loss sharing (PLS) contracts to protect the interest of all the parties (the

holder of the capital and the user of the capital) by assuming their responsibilities in both cases of success and risk (Franzoni and Ait Allali, 2018). Islamic finance instruments are aimed at financing the purchase of halal products on a credit basis (Jamshidi and Kuanova, 2022; Kuanova *et al.*, 2021). In the last decade, the growth of loans to SMEs by Islamic banks was overwhelmed to the extent that practitioners described it as a "win-win" situation (Shaban *et al.*, 2016). Thus, MSME owners accessing Shariá-compliant funds will surely satisfy their financial needs.

Moreover, the role played by Islamic finance in mitigating the consequences of the global financial crisis between 2007 and 2008 has been widely acknowledged across the globe. Consequently, the Islamic finance industry is now growing exponentially, leading to the emergence of various innovative business models (Ali *et al.*, 2019). Currently, a challenge has been thrown to the Islamic finance and banking industry to provide various alternative and sustainable financial services, strategies and technologies to overcome the challenges caused by the COVID-19 pandemic (Hassan *et al.*, 2020). However, the prohibition of interest-based financing by the Islamic faith has led many MSME owners to refuse even government intervention funds in Nigeria because they does not conform to the Islamic finance guidelines (Umar *et al.*, 2020). The renewed pressure put upon by the COVID-19 pandemic makes it even worse for Muslim MSME owners in Nigeria. Fortunately, the Nigerian Central Bank issued guidelines for accessing Shari'ah-compliance funds during the COVID-19 pandemic lockdown to ease this pressure, purposely for Agri-Business/Small and Medium Enterprises.

The issuance of the Shari-ah compliant AGSMEIS guidelines will likely result to a positive impact on the FS of Muslim MSME owners that were previously deprived the government backed conventional funding sources. Owing to the apparent lower risks of Islamic financing that promote a fairer access to finance for MSMEs, Hassan *et al.* (2020) asserted that access to Islamic finance could stimulate the global financial system to provide a solution to the financial crisis caused by the pandemic. This supports the prospect of AIF in mediating the relationships between FRT, AWIF and FB on the FS of MSME owners. As the Islamic financing involves lower risks, the risk tolerance (FRT) of MSME owners could be stimulated through AIF to promote FS. Likewise, the level of Islamic financial principles awareness AWIF could expressly stimulate AIF to enhance MSME owner's FS. Moreover, FB will promote FS through AIF due to the lower risks and greater benefits of Islamic financing, because FB involves positive rationalization of financial actions. Thus, the promotion of AIF by FB could also help to better expound the FS of MSME owners.

Moreover, the guidelines for mediation analysis by Hayes (2009) has been satisfied. Based on Hayes (2009) the independent variable(s) must significantly relate to the proposed mediator variable, and the mediator variable must significantly relate to the dependent variable. These mediation steps recommendations were evidenced in the preceding literature; which argued for the positive relationship between FRT, AWIF, FB and AIF, as well as the positive relationship between AIF and FS. Accordingly, this study postulates that:

H5. AIF will mediate the influence of FRT attitude on FS.

H6. AIF will mediate the influence of awareness of Islamic finance principles on FS.

H7. AIF will mediate the influence of FB and FS.

3. Methodology

A quantitative cross-sectional survey design was used to achieve the objectives of this study. Data were collected through a self-administered questionnaire distributed among MSME Owners in Kano. Out of a total population of 1,827,402 MSMEs in Kano

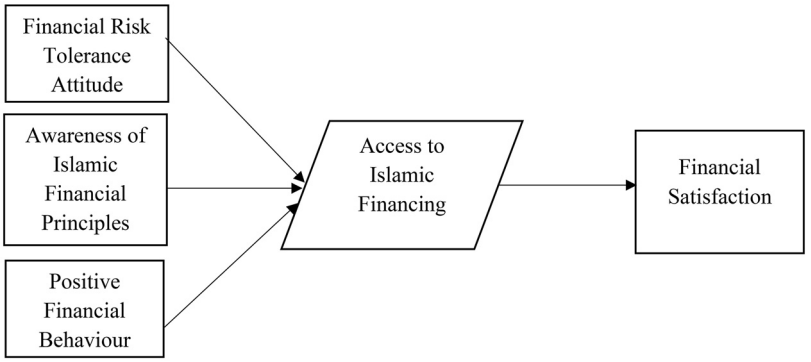
(SMEDAN/NBS, 2017), a sample of 384 MSME owners was chosen based on Krejcie and Morgan (1970). Despite arguments that the probability sampling method is more reliable and representative (Coolican, 2017), the literature also recognized situations where non-probability methods are indispensable (Sekaran and Bougie, 2010). Thus, purposive sampling was used to collect data from MSME owners that visited the AGSMEIS funding application centres to apply for Islamic based funding. A total of 384 questionnaires were distributed to the MSME owners as they collected the AGSMEIS funding forms and were asked to submit back the completed questionnaires together with the completed application forms. Through this process, 208 questionnaires were retrieved and used for data analysis, representing a 54% response rate that conforms to the response rate in the context (Mahmoud *et al.*, 2022). The preliminary analysis and screening indicate that the data conforms to assumptions for multivariate analysis, with no single case of outlier, multicollinearity or normality issues.

3.1 Construct measurements

The entire variables are adopted from prior literature and measured based on a five-point Likert scale. The constructs include three independent variables, i.e. FRT measured with five items adopted from Grable and Joo (1999), Jeong and Hanna (2004). The second construct, AWIF, was measured with six items adapted from Faisal *et al.* (2012) and Al Balushi *et al.* (2019). FB has ten items adapted from Joo (1998) and Joo and Grable (2004). AIF is the mediating variable measured with eight items adapted from Wasiuzzaman *et al.* (2020) and Claessens (2006). Finally, six items were adopted for FS (dependent variable) from Hira and Mugenda (1998).

4. Data analysis and results

As the study model has multiple variables the structural equation model (SEM) will be the most suitable for multivariate analysis in this study (Farrukh *et al.*, 2021; Hair *et al.*, 2017; Mahmoud *et al.*, 2020 [Figure 1]; Mahmoud *et al.*, 2021a). This study, therefore, adopted the partial least square (PLS-SEM) software for the analysis, which has been used widely in similar research (Alam *et al.*, 2020; Mahmoud *et al.*, 2020). Based on the nature of the study, Smart PLS software version 3.2.7 was involved. The data were screened to fulfil the multivariate analysis requirements using the Statistical Package for Social Science (SPSS) version 24.



Source: Authors creation

Figure 1.
Research framework

4.1 Data screening

The preliminary analysis was conducted to assess the suitability of the data for further multivariate analysis; this will assist in detecting possible violations of the basic assumptions of multivariate analysis (Hair *et al.*, 2007). This process analyses the missing values, outliers cases, normality, multicollinearity tests and common method bias issues (Tabachnick and Fidell, 2007; Hair *et al.*, 2010). The data proves to satisfy the requirements for multivariate analysis with no single issue that warrants attention.

4.2 Demographic profile of respondents

The sample comprises 67.8% men and 32.2% women. This shows that the male MSME owners are the majority in terms of response in this survey. Moreover, 27.4% of the respondents were 25 years and below, 41.3% were between 26 and 35 years, 21.6 were between 36 and 45 years and 9.6% were 46 years and above. Thus, respondents in the age category of 26 and 35 years are the majority. Moreover, more than half of the respondents are micro enterprise owners as depicted by the descriptive statistics. Micro enterprises that employ 1–9 people account for 51.9%, small enterprises with 10–49 employees account for 39.4% and medium enterprises with 50–199 employees account for 8.7% of the sample. However, 78.8% of the firm owners come from the service sector, and 21.2% comes from the manufacturing sector. This shows that majority of the respondents owned firms that operate in the service sector. Similarly, MSME owners that are sole proprietors carry 68.3% of the responses, while 24.5% of the MSME owners formed their businesses through partnerships and 7.2% are incorporated as private limited firms. Finally, over 39% of the firms are operating for 6–10 years, 36.5% are operating for five years and below, 16.3% are operating for 11–15 years and 7.7% are operating for 16 years and above (Table 1).

4.3 Partial least square structural equation modelling results

PLS-SEM was used for the analysis of hypothesized relationships. As a powerful technique for complex model analysis, PLS-SEM has become popular among social science researchers (Mahmoud *et al.*, 2020; Farrukh *et al.*, 2021; Mahmoud *et al.*, 2021b). PLS-SEM is analysed based on two stages; the first stage is the measurement model, while the second stage is the structural model.

4.3.1 Measurement model. This is estimated by examining the validity and reliability of measurements. The construct reliability is assessed through the individual item reliability loadings and internal consistency reliability, i.e. composite reliability loadings. However, the validity is measured based on convergent through average variance extracted loadings (AVE) and discriminant validity through Fornell and Larcker (1981) square root of the AVE method. According to Hair *et al.* (2014), individual item reliability loadings with 0.40 to 0.70 loadings should be retained. For composite reliability, the threshold value should be from 0.70 and above (Nunnally, 1978). The next criterion for evaluating the measurement model is the convergent validity estimated through AVE loadings. The least acceptable AVE value is 0.50 (Chin, 1998). Table 2 shows that all the reliability and validity values are above the threshold values; therefore, the construct reliability and validity requirements have been satisfied.

Finally, the discriminant validity is evaluated with the help of the Fornell and Larcker (1981) criterion. To satisfy the discriminant validity requirements, the square root of AVE (italics values in Table 3) must go beyond the construct correlations of other variables in vertical and horizontal lines (Fornell and Larcker, 1981). Results portrayed in Table 3 show the constructs satisfied the discriminant validity assumptions.

S/no.	Items	Frequency	%
1	*Gender*		
	Male	141	67.8
	Female	67	32.2
	Total	208	100
2	*Age*		
	25 years and below	57	27.4
	26–35 years	86	41.3
	36–45 years	45	21.6
	46 and above	20	9.6
	Total	208	100
3	*Employees*		
	1–9	108	51.9
	10–49	82	39.4
	50–199	18	8.7
	Total	208	100
4	*Industry*		
	Manufacturing	44	21.2
	Service	164	78.8
	Total	208	100
5	*Ownership*		
	Sole ownership	142	68.3
	Partnership	51	24.5
	Private limited company	15	7.2
	Total	208	100
6	*Operation*		
	5 years and below	76	36.5
	6–10 years	82	39.4
	11–15 years	34	16.3
	16 years and above	16	7.7
	Total	208	100

Source: Authors' own creation from research data

Table 1. Respondent's demographic profile

4.3.2 Structural model evaluation. After establishing the measurement model's reliability and validity, evaluation of the structural model is the next step. The standard bootstrapping technique was applied with the sum of 5,000 bootstrap samples (Hair *et al.*, 2017) to evaluate the significance of hypothesized relationships. The R^2 of the study revealed a 0.196 variance on FS, indicating that the model explained a 19.6% variance in the FS of MSME owners in the Nigerian context. Results presented in Table 4 illustrate *H1* has an insignificant relationship between FRT and access to Islamic finance and is therefore rejected. In line with the hypothesized relationship, the results of *H2* indicate a strong significant positive relationship between AWIF and access to Islamic finance. Contrarily, *H3* is rejected because the result of the relationship between FB and access to Islamic finance is insignificant. Nevertheless, the relationship between access to Islamic finance and FS is found to be significant and, therefore, *H4* is accepted.

To test the mediation effect of access to Islamic finance on the relationship between FRT attitudes, AWIF, financial behaviour and FS linkages, the bootstrapping technique was also

Constructs	Item loadings	Composite reliability	Average variance extracted (AVE)
AIF		0.757	0.609
	AIF7_0.785		
	AIF8_0.776		
AWIF		0.836	0.506
	AWIF1_0.736		
	AWIF3_0.654		
	AWIF4_0.701		
	AWIF5_0.782		
	AWIF6_0.676		
FB		0.766	0.621
	FB1_0.748		
	FB2_0.827		
FRT		0.768	0.525
	FRT2_0.736		
	FRT3_0.718		
	FRT5_0.718		
FS		0.772	0.630
	FS4_0.819		
	FS5_0.767		

Table 2. Reliability and validity of the measurement model

Source: Authors' own creation from PLS-SEM results

Constructs	AIF	AWIF	FB	FRT	FS
AIF	*0.780*				
AWIF	0.499	*0.711*			
FB	−0.070	0.005	*0.788*		
FRT	−0.050	−0.198	0.196	*0.724*	
FS	0.353	0.332	0.153	−0.114	*0.793*

Table 3. Fornell–Larcker discriminant validity criterion

Note: The italics values indicates the AVE Square root
Source: Authors' own creation from PLS-SEM results

Hypotheses	Sample mean (β)	Standard deviation (STDEV)	T statistics	p-value	Decision
H1: FRT → AIF	0.074	0.078	1.271	0.102	Reject
H2: AWIF → AIF	0.545	0.049	11.159	0.000	*Accept*
H3: FB → AIF	−0.089	0.064	1.464	0.072	Reject
H4: AIF → FS	0.278	0.075	3.656	0.000	*Accept*
H5: FRT → AIF → FS	0.020	0.023	1.155	0.124	Reject
H6: AWIF → AIF → FS	0.151	0.043	3.451	0.000	*Accept*
H7: FB → AIF → FS	−0.025	0.019	1.321	0.094	Reject

Table 4. Hypothesis results by bootstrapping

Notes: FS = financial satisfaction; AIF = access to Islamic financing; AWIF = awareness of Islamic financial principles; FB = financial behaviour (positive); FRT = financial risk tolerance
Source: Authors' own creation from PLS-SEM results

used using SmartPLS software. According to Hair *et al.* (2017), there are three types of mediation:

(1) complementary mediation;

(2) competitive mediation; and

(3) indirect-only mediation.

The complementary mediation occurs when the effects of direct and indirect relationships are significant and in the same direction. In contrast, competitive mediation exists when there are significant direct and indirect effects but in contrasting directions. Finally, indirect mediation takes hold when the indirect effect is significant but not the direct impact. Results depicted in Table 4 revealed that the mediation effect of AIF on the relationship between FRT → FS as well as FB → FS is insignificant, and therefore, no mediation effect is observed. However, the mediation effect results of AIF revealed a significant positive effect on the AWIF–FS relationship. Likewise, the direct relationship between AWIF and FS is positively significant, indicating a complimentary mediation.

Therefore, *H5* is rejected because the result revealed an insignificant mediating influence of access to Islamic finance on the relationship between FRT attitude and FS. On the other hand, the mediating effect of access to Islamic finance on the relationship between AWIF and FS is significant and *H6* is therefore accepted. Finally, the result of *H7* revealed an insignificant mediating influence of access to Islamic finance on the relationship between financial behaviour and FS, which resulted in the rejection of *H7*.

5. Discussion of results

The current dynamic business environment requires MSME entrepreneurs to be financially satisfied to manage and sustain their businesses effectively. The results of *H1* revealed that FRT has no significant relationship with AIF. While the literature posits the relationship between FRT and AIF, the results showed the absence of a significant relationship, and therefore *H1* is rejected. This contradicts the arguments presented in the literature that FRT will promote access to finance (Saurabh and Nandan, 2019). The rejection of *H1* may be explained by the limited available Islamic finance options and the domination of conventional financial services provided in the country. The limited number of available Islamic finance options may threaten the perception of MSME owners on the risks associated with access to Islamic finance. *H2*, which posits the positive relationship between AWIF and AIF, was found to be significant. This indicates that the greater the awareness of MSME owners on the availability and Islamic financing, the greater their AIF. *H2* result is therefore comparable with many preceding research findings and arguments (Islam and Rahman, 2017; Kaakeh *et al.*, 2018; Ahmad and Isah, 2018; Nisa and Zulkifli, 2022). Consequently, MSME owners are likely to access Islamic financing facilities when there is greater awareness of Islamic financing principles and facilities. Thus, government and Islamic financial institutions must increase public awareness efforts about the principles of Islamic financial operations to support AIF (Islam and Rahman, 2017).

On the other hand, the relationship between FB -> AIF was not significant, which results to the rejection of *H3*. This specifies that financial behaviour has no significant influence on AIF among MSME owners in the context of this study. Thus, the result of *H3* is contrary to preceding literature arguments (Sudindra and Naidu, 2018; Magli *et al.*, 2020). However, this result can be explained by the fact that MSME owners that have FB may be comfortable with their financial situation, especially in the short term (Henager and Cude, 2016). Thus, they may not require any external financial intervention, even from Islamic financial

sources. Nonetheless, MSME owners that have poor financial behaviours could be faced with negative consequences that could portray a different result (Topa *et al.*, 2018).

On the other hand, the relationship between AIF → FS portrayed in *H4*, which indicates a significant positive relationship, was accepted. This, therefore, clarified that greater AIF could increase the FS of MSME owners. *H4* results is thus comparable with preceding literature arguments that favour the significant AIF → FS proposition (Bialowolski and Weziak-Bialowolska, 2021; Becchetti and Conzo, 2013). The Islamic financing principles of profit and loss sharing have portrayed AIF as a "win-win" financial facility that will surely satisfy the financial needs of MSME owners accessing Shariá-compliant funds (Shaban *et al.*, 2016; Franzoni and Ait Allali, 2018; Lajis, 2017).

The examination of the mediating effect of AIF on FRT, AWIF, FB and FS is the most important objective of this study which has been stated in *H5, H6* and *H7*. To realize this objective, the mediating hypotheses *H5*, *H6* and *H7* were computed using bootstrapping method (Preacher and Hayes, 2008; Hayes, 2009) to ascertain the mediating role of AIF on FRT, AWIF, FB and FS. The basic conditions to ascertain the presence of a mediating effect are as follows:

- the existence of a significant relationship between independent variables and the mediator variable; and
- the significant relationship between the mediator variable and the dependent variable (Hayes, 2009).

For *H5*, the first and second conditions for direct relationships between the independent variable and mediator, as well as the mediator variable and dependent variable was not fulfilled, and therefore, FRT → AIF → FS was not found to be significant, which means AIF does not mediate the relationship between FRT and FS. On the other hand, *H6*, which proposed the significant relationship between AWIF → AIF → FS, has been accepted as it fulfils all the basic mediation requirements and indicates a significant mediating effect. *H6*, therefore, expounds that AIF can better explain the relationship between AWIF and FS, and thus, the relationship between AWIF and FS is more evident when AIF sufficiently exists. Finally, the basic conditions for *H7* have not been fulfilled and the proposed mediating relationship in *H7*; FB → AIF → FS was not found to be significant. Thus, AIF does not mediate the relationship between positive FB and FS.

6. Implication of the study

6.1 Theoretical implication

This study offers theoretical contributions by being the first to build and test an integrated model that consists of FRT, AWIF, FB, and FS of MSME owners with AIF as a mediator in the Nigerian context. The mediating effect of AIF was principally investigated, and the result contributes to both entrepreneurship and finance literature regarding financing MSMEs in many ways. For instance, the role of FRT, AWIF and FB in explaining FS has been recognized by researchers, but the role of AIF in explaining these relationships is unknown, especially in developing countries where conventional financial institutions dominate. This study, therefore, bridged this theoretical gap.

6.2 Implication for practice

This paper also holds out some practical insinuations for policymakers and practitioners. For instance, the results of this study indicate a significant positive relationship between AWIF, AIF and FS. By implication, policymakers are encouraged to increase efforts in

creating AWIF among the public to foster both access to Islamic finance and FS among MSME owners. Policy makers should also note the positive implication of access to Islamic finance on the FS of MSME owners in Nigeria. The dynamic business and financial needs of organizations require MSME owners to be more conscious of Islamic financial principles to enable them to have AIF, which will in turn better their FS. The findings also suggests that the relationship between AWIF principles and FS will be better explained in the presence of AIF. Thus, it is important for policymakers in countries that have a significant Muslim population to consider AWIF principles and AIF to increase the FS of MSME owners.

7. Limitations and future study

This study is subject to some limitations. Firstly, the study used a cross-sectional data collection method, which may not allow causal conclusions from the population. Secondly, all study variables were gauged by self-report measures, which may be associated with common method variance and social desirability bias (Podsakoff *et al.*, 2003). Nevertheless, self-report methods were proved to be valid means of assessing conceptual variables in entrepreneurship and finance literature (Mahmoud *et al.*, 2018; Mahmoud *et al.*, 2020). Thirdly, the study focused only on MSME owners in Kano state, which is predominantly dominated by the Muslim population.

The above limitations unlocked some future research gaps. Forthcoming studies could use longitudinal data collection method especially to compare the period of access to Islamic finance, awareness of Islamic finance principles and FS. However, future studies should extend the study population to other states with both Muslim and non-Muslim populations. Future researchers should also incorporate more variables in the research model.

8. Conclusion

The study ascertained the importance of AIF and AWIF principles on the FS of MSME owners. The study also shows that FRT and FB do not influence AIF in the study context. But AWIF has the influence of AIF, which subsequently affect FS. The implications of this study will advance the literature on Islamic finance and FS and the relevance of AIF on FRT, AWIF principles and FB on FS of MSME owners, especially in the period Covid-19 pandemic.

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