Journal of Islamic Finance Vol. 10 No. 2 (2021) 148-161
IIUM Institute of Islamic Banking and Finance
ISSN 2289-2117 (O) / 2289-2109 (P)

The External Environment Driving Internal Organizational Change: Empirical Evidence from Commercial Banks' Adoption of Islamic Financial Transactions in Libya

Salwa Abdel Gader Khalleefah Bin Idrees*, Syed Musa Alhabshi, Ashurov Sharofiddin, Anwar Hasan Abdullah Othman

IIUM Institute of Islamic Banking and Finance, International Islamic University Malaysia

**Corresponding author:* *sakb2771972@gmail.com*

Abstract

This paper examines the Libyan commercial banks' adoption of Islamic financial transactions to achieve a real value for stakeholders related to internal environmental adaptation. Accordingly, a questionnaire was designed and distributed to 14 commercial banks in Libya. Structural Equation Modelling (SEM) has been employed for testing the hypotheses. In the context of hypothesized modelling, the conceptual framework portrayed the constructs of the variables employed in the study to be Libyan commercial banks' adoption of financial transactions as the dependent variable and the external environment as factors driving organizational change as the independent variable. The adaptation of the commercial banks' internal environment acts as a mediating variable. The Confirmatory Factor Analysis (CFA) is applied to the relationship between measures of constructs and indicators. The results showed that the estimations of maximum likelihood (ML) were satisfactory. The results of SEM showed that commercial banks' adoption of Islamic financial transactions is more related to their capability of adapting their internal environment than achieving an economic and social value of stakeholders. Finally, the article provides future research directions on commercial banks' ability to adapt to their internal environment to drive change and commercial banks' adoption of Islamic financial transactions.

Keywords: adoption, adaptation, change, stakeholder, neo-institutional theory, Islamic banking

1. Introduction

Commercial banks broadly act as financial intermediaries between savers who deposit money in a bank and borrowers who receive a loan from that bank in return for the imposed interest (Diamond and Rajan, 2000). They offer various financial services, such as keeping and investing deposits (Werner, 2016). According to these services, Sealey deemed commercial banks as companies that provide different loan products for persons who wish to borrow (Sealey and Lindley, 1977). This view supports an argument that commercial banks can adopt Islamic financial transactions as a financial innovation that can achieve financial intermediation between savers and investors and balance economic and social returns (Alharbi, 2015; Iqbal and Mirakhor, 2011).

Thus, the banks can diversify their activity, meet their clients' needs, and attract new clients who have religious beliefs about the prohibition of usury and desire to deal according to the *Shariah* as Islamic dealings can provide commercial banks with various financing methods (Alharbi, 2015; Dinc, 2020; Gait and Worthington, 2008).

In this regard, many scholars discussed the necessity of commercial banks to comply with *Shariah* in their financial transactions to promote customers' trust (Bukair and Abdul Rahman, 2015; Nomran and Haron, 2020; Nomran et al., 2018). Dusuki (2008a) stated that the primary motivation of stakeholders for adopting Islamic financial transactions in commercial banks is to promote Islamic values and norms. Thus, commercial banks have to adopt Islamic financial transactions to achieve the actual value of stakeholders (Siddiqi et al., 2019).

Article history
Received: 11 October 2021
Accepted: 29 December 2021

Along the same lines, the Islamic financial literature (Ali et al., 2018; Al Balushi et al., 2019; Bananuka et al., 2019; Juma et al., 2020) employed a framework to analyse consumer behaviour to explain the determinants of users' acceptance of Islamic financial transactions as financial innovations. However, theoretically, the available studies did not provide a conceptual framework that justifies the external environment driving commercial banks to organisational change and adopt Islamic financial transactions. In this context, in the scope of neo-institutional theory, the authors argue that the external environment may drive change and Libyan commercial banks' adoption of Islamic financial transactions. However, these banks' adoption will be related to their capability to adapt to their internal environments. Lastly, in managerial literature, this study highlights the adoption of internal environments to adopt Islamic financial transactions.

This is the first study conducted on the Libyan commercial banks to the best of our knowledge. It has been organised to identify the issue of the study, then identify the conceptual framework in the context of organisational and Islamic banking literature, and employ a methodology to examine the hypotheses and analyse the hypothesised modelling. Finally, the study outlines the implications of the study.

1.1 Identifying the issue of the study

Globally, in the context of religious beliefs and ethics, in many countries, commercial banks and financial institutions have adopted Islamic financial transactions. Some countries have changed their financial sector to be compatible with Islamic law, such as Malaysia and the Arab Gulf States. In contrast, others have completely changed their financial sectors, such as Iran and Sudan. The aim of such adoption is to reinforce an Islamic identity and a radical change from an interest-based economy to a profit and loss sharing-based economy (Khan, 2010). In the same vein, religious beliefs were the motivation to change in Libya. Accordingly, the Libyan General National Conference issued Law No 1 in 2013 prohibiting interest-based public and commercial financial transactions in the Libyan economy on 1 January 2015. However, this law was issued without making strategic plans to support the capability of Libyan banks to apply Islamic financial transactions. After that, the Libyan Parliament issued Law No 7 of the year 2015, modifying Law No 1, and it will be implemented on the legal persons by the year 2020. Nevertheless, 2021year came, and no changes have been observed to transform its banking sector to deal with Islamic financial transactions.

1.2 An overview of studies and research investigating the adoption of Islamic financial transactions in Libyan commercial banks

Studies have investigated the mechanisms of the Libyan commercial banks' transformation from the conventional to the Islamic system. Several factors, however, hinder the transformation. Some focused on the internal hindrances of transforming Libyan banks by examining perceptions, attitudes, and behavioural responses of bank employees about the conversion of transactions of Libyan commercial banks to be *Shariah*-compliant. The researchers collected the perceptions of the attitudinal responses of the Libyan bank employees to form a general idea of employees' perceptions about the possibility of changing and the banks' employees' resistance to this change (Abdalla et al., 2015; Shafii et al., 2016). Others examined the disclosure compliance with AAOIFI guidelines by the Fashlowm Islamic branch at Gumhouria Bank. They stated that compliance was minimal. The main reason was that the Islamic Fashlowm branch is a subsidiary of a conventional bank. Furthermore, staff lacked training in AAOIFI standards (Ahmad and Daw, 2015).

Recent studies revealed Libyan commercial banks' challenges and problems. (Al-Qasim and Shaala, 2021; Elkrghli 2020; Mahjoub et al., 2020; Massoud and Mohammed, 2020) revealed challenges and problems currently facing Libyan commercial banks. It is rather striking that these studies confirmed the results of the studies above. In summary, the available literature presents a research gap that opens up new horizons to examine the adaptation of Libyan commercial banks' internal environment as a critical determinant of adopting Islamic financial transactions to achieve stakeholders' economic and social value.

2. Critical Review of Identifying Conceptual Framework

In the context of neo-institutional theory, the organisations' external environment openly determines their organisational behaviour through their organisational fields. The organisational field delineates organisational entities with commensal and symbiotic ties with organisations (Scott and Davis, 2016). These ties lead to institutionalisation, which involves social processes, obligations, or actualities in taking on a rule-like status in social thought and action (Meyer and Rowan, 1977). Organisations have adopted these as "myths and function as institutional constraints for giving these organisations legitimacy, resources, stability, and enhanced survival prospects" (Meyer and Rowan, 1977). In this respect, Tolbert and Zucker (1996) argued that in the context of institutional change, organisations will adopt professions, policies, and programmes created along with the products and services that are understood to produce rationalised institutional rules. Hence, institutionalisation is evident and effective when changing and adopting organisational innovations accompanying adaptation (Tolbert and Zucker, 1996). From this point of view, in the following parts, we identify the adoption term as an organisation's adoption of managerial innovations accompanying structural changes as the response to changes in their external environment that require reshaping their internal environments.

2.1 The adoption of managerial innovation for organizational change

In organisational literature, the term 'adoption' is comprehensively related to innovation. It means "adopting innovations generated elsewhere, and they have implemented by organisations as new programmes to use by its members or clients" (Damanpour et al., 2018). In return, this boosts the spread of adopted innovation across organisations in their organisational field (Tolbert and Zucker, 1996). More minutely, the goal of the adoption of managerial innovations is to improve the organisation's performance in terms of its efficiency and effectiveness by adopting new programmes and practices to change its administrative systems and managerial procedures (Camisón and Villar-López, 2014; Damanpour and Aravind, 2011; Evangelista and Vezzani, 2010; Exposito and Sanchis-Llopis, 2018). Along the same lines, others argued that organisations' change decisions are related to their capacity to adapt and transform (Gorddard et al., 2016). Hence, adopting innovations can be deemed the philosophy of positive organisational change that explains how organisations can improve (Cantore 2017:275–76). This view complies with the view of Damanpour et al. (2008), who deemed that organisations seek to change by adopting innovations to respond to changes in their environment (Damanpour and Schneider, 2006). While in the institutional literature, if organisations decide to adopt managerial innovations, this requires institutionalisation in the organisational field to acquire legitimacy (Tolbert and Zucker, 1996). Besides that, they will be obliged to incorporate many formal organisational structures such as creating professions, policies, and programmes that emerge as reflections of rationalised institutional rules, side by side, with adopting the new products and services (Meyer and Rowan, 1977). Thus, the above opinions highlighted that adopting innovations accompanying adaptation requires structural changes to reshape the organisation's internal environment as the response of changes in their external environment to acquire legitimacy. In this vein, in the following parts, the authors have discussed the external environment as a driver for organisational change and adopting Islamic financial transactions as one of the organisational innovations accompanying adaptation.

2.2 The external environment as a driver of organizational change

In management, the entities surrounding an organisation impact decision making. Overall, these entities represent the external environment, namely customers, employees, shareholders, government, the media, public opinion, etc. (Freeman et al., 2010). Accordingly, researchers have examined the influence of the environment on organisations. Hiriyappa (2008) and Ferguson (1993) examined the effect of the environment on organisations. Apart from the terminology that has been used, they classified the organisation's external environment from closest to farthest from its internal environment into operating, industry, and remote environments. Thus, the range of an organisation's goals will be identified according to changes in its external environment, and its effects will be more apparent when closer to the organisation. In this regard, we discuss the short-term impact of the external operating environment on an organisation. Daft (2010) sees that organisations should create value for stakeholders, either their owners, customers, or employees, through their activities.

On the other hand, Freeman deems that the external environment provides social support for the organisation. Thus, stakeholders are original pressure sources on an organisation's decisions and a key determinant of its strategies (Freeman et al., 2010). Consequently, the pressure of the external environment will motivate organisations to change purposefully (Ram and Swatman, 2008). This view corresponds with Alharbi, who deemed that the philosophy of adopting Islamic financial transactions means that financial dealings are according to a *Shariah* framework to achieve a balance between economic and social return (Alharbi, 2015).

Thus, the commercial banks' decision to adopt Islamic financial transactions represents adopting new innovative products and services in the market. This view has been confirmed by the literature of Islamic finance such as (Dusuki, 2008a; Amin et al., 2011; Anouze et al., 2018; Zubaidah and Mudrifah, 2019), who reviewed the perspective of various stakeholders about the philosophy and objectives of Islamic banking. In general, the authors argued that adopting Islamic financial transactions in financial institutions and commercial banks is a new financial innovation that banks must adopt to create real value in society and seek to fulfil all stakeholders' well-being.

As Dusuki (2008b) confirmed, stakeholders' (individual and societal) primary motivation to adopt Islamic financial transactions in commercial banks is promoting Islamic values and norms. Thus, commercial banks must adopt Islamic financial transactions to achieve real value for stakeholders. This is through achieving social and financial gains of the individuals of society (Siddiqi et al., 2019), namely achieving an economic and social value represented in promoting Islamic values and norms, achieving economic gains, and achieving social gains (Dusuki, 2008b). This includes standardising procedures and standards, namely *Shariah* standards, to evaluate the integrity of Islamic financial transactions, precisely the AAOIFI *Shariah* standard. It has led to institutionalisation in the banks and financial institutions that have adopted Islamic financial transactions. This innovation has introduced an alternative system of conventional system interest-based, which has gained them legitimacy across regional and international borders (Sandal, 2019). The discussions above reflect that the adoption of Islamic financial transactions is related to achieving stakeholders' economic and social value.

2.3 The adaptation of commercial banks' internal environment

Technically, Islamic financial transactions are defined as binding sale contracts to carrying out an agreement between two or more parties. Accordingly, Islamic financial transactions specify a contractual obligation that balances individuals' rights (Iqbal and Mirakhor, 2011) by trading intangible assets (Soualhi, 2015). Broadly, there is agreement among *Shariah* scholars that all commerce or business transactions are legitimate as long as they do not transgress the bounds of the *Shariah*. In this regard, all Islamic financial transactions are governed by general conditions to determine their permissibility, as follows (Gait and Worthington, 2008; Khan, 2010):

- Prohibition of *Gharar*: It means that a business transaction will be legitimately prohibited if its contract involves uncertainty.
- Prohibition of *Maysir*: It means that a business transaction will be legitimately prohibited if its contract involves gambling, namely, the transaction is mere chance or speculation.
- Prohibition of *Riba*: it means that a business transaction will be legitimately prohibited if its contract involves an increase that will be paid on an original amount as interest. Any project's profits must derive from commercial risk.

In this regard, the authors argue that in the context of *Shariah* requirements, the self-peculiarities of Islamic financial transactions will govern commercial banks' capability to adapt their internal environment when adopting them as a funding method. This involves identifying and adapting means that an organisation adapts its possibilities by redesigning its formal structure according to explicit goals and policies specifying its activities (Meyer and Rowan, 1977). Accordingly, redesigning organisational structure depends on the prevailing circumstances of an organisation considering its goals, strategies, workforce, technology, and environment. Successful structural change is designing a structure to respond to changes in goals, technology, and environment (Bolman and Deal, 2008). In other words, the change relies on the organisations' capability to adapt to its internal environment either by developing production processes or adopting innovation.

Practically, Sanjeepan (2016) stated that commercial banks seeking to offer or adopt new product innovations engaged in creating new knowledge. They should translate this knowledge into new outputs, products, and processes. These conditions correspond precisely with the requirements of the adoption of Islamic financial transactions in commercial banks. The adoption of Islamic financial transactions requires radical changes in commercial banks' accounting processes and governance structures (Maali and Napier, 2010). According to AAOIFI *Shariah* standard number (6), the adoption of Islamic financial transactions will be accompanied by structural changes in commercial banks internal environment. Namely, the organisation restructures by establishing Islamic banking management because to examine transactions and procedures in addition to reformatting financial contracts to comply with *Shariah* standards.

Moreover, a *Shariah* supervisory board consist of scholars in *Shariah* and everyday financial transactions. They are qualified to issue *fatawa (Shariah* rulings*)*, and their decisions have to be binding on the bank's management. They open investment accounts in the central bank to avoid dealing with interest while also opening new *Shariah*-compliant individual, institutional, local, and international banking accounts. In return, commercial banks have to prepare their technical capabilities by rehabilitating all their employees concerning Islamic banking principles and rules, further establishing training programmes specialising in Islamic financial accounting and risk management. In summary, the adaptation of the commercial banks' internal environments is a crucial determinant of adopting Islamic financial transactions.

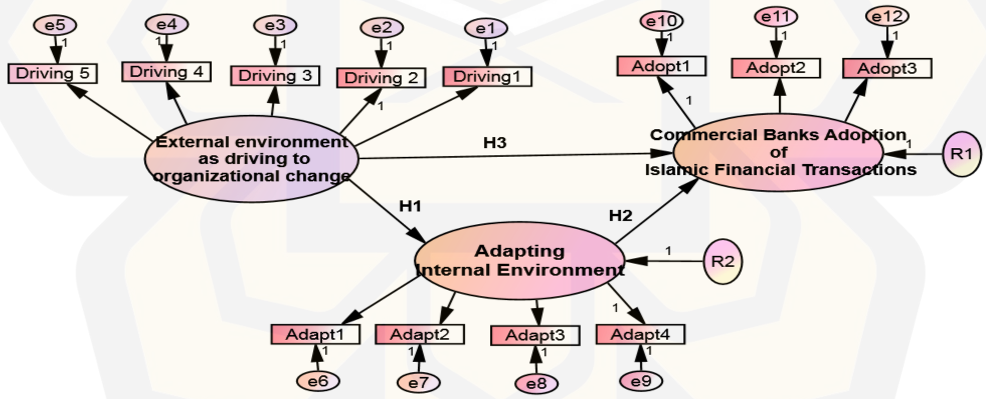
3. Conceptual Framework

In the context of the discussion above, the authors have designed a model that embodies the external environment as a driver for organisational change and adopting Islamic financial transactions in commercial banks according to the following hypothesis, as shown in Figure 1 below:

Hypothesis H1: The changes of commercial banks' internal environment are related to their external environment as driving organisational changes.
Hypothesis H2: Libyan commercial banks' adoption of Islamic financial transactions is related to adapting their internal environment.
Hypothesis H3: Libyan commercial banks' adoption of Islamic financial transactions is related to their external environment for achieving an economic and social value of stakeholders.

Figure 1 reflects that if the commercial banks decide to adopt Islamic financial transactions as the response to their external environment to achieve stakeholders' fundamental value to acquire legitimacy, they will adapt their internal environment to prepare for the adoption process.

Figure 1: Conceptual Framework



4. Research Methodology

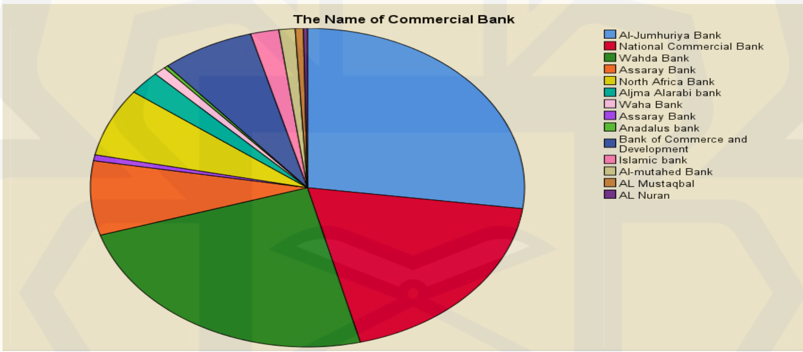
Broadly, the research methodology represents the different ways in which knowledge can be created to answer study questions and underpin its results (Adams et al., 2007). According to Creswell (2012), there are three research methods, often classified as qualitative, quantitative, and mixed methods, which are widely used in various scientific fields. In this study, the authors have adopted the quantitative method (Creswell, 2012). Accordingly, in line with the conceptual study framework, for testing the hypotheses, Structural Equation Modelling (SEM) has been employed to depict and test the hypothesised relationships among observed variables quantitatively. It is worth noting that there were limitations when identifying the research sample and collecting data because of the crisis COVID-19. For overcoming those difficulties, the research sample has been identified as a probability sample. Data was collected by distributing questionnaires and sending e-questionnaires via email to Libyan commercial banks.

4.1 Identifying population and sample size

Conceptually, the study population represents the group of people, events, or things of interest for which the researcher wants to make inferences. In contrast, “the sample represents a subset of the study population that comprises some members selected to conduct the study” (Sekaran and Bougie, 2016:263–237). From the practical side, according to the official statistics records of the Central Bank of Libya (2014), the total number of employees in the Libyan banking system is about 19,183 employees. For a study population of 20,000 employees, the sample was defined as 377 according to the table set up by Krejcie and Morgan to simplify the decision of determining sample size (Sekaran and Bougie, 2016). Hair suggested that the appropriate sample size is 200 to 400 respondents (Hair et al., 2010).

Since the authors decided to employ SEM, 504 questionnaires surveys were collected and processed using the SPSS software version 26. Invalid questionnaires were excluded to form a total of 332 completed and valid questionnaires from a sample size of 14 banks, as shown in Figure 2. The sample consisted of managers, directors of departments, and personnel who will answer the questionnaire in the Libyan commercial banks.

Figure 2: Libyan Banks Participating in the Study



4.2 Measuring instruments

In the context of hypothesised modelling, the conceptual framework has portrayed the concept constructs of employed variables of the study, with Libyan commercial banks’ adoption of financial transactions as the dependent variable. The external environment as driving organisational change is the independent variable. The adaptation of the commercial banks’ internal environment was the intermediate variable. In this regard, the conceptual and operational definitions of explanatory variables and a response variable have been identified to establish a measuring instrument to collect testing hypotheses in hypothesised modelling.

Five specialised academic faculty members in IIUM and two more experts in Islamic banking in Libya evaluated the validity of measurements. The experts agreed that the questionnaire covered all the variables identified in the study model. Consequently, we distributed 80 questionnaires to respondents from different commercial banks in Benghazi city. Sixty questionnaires were complete, and the other 20 were incomplete. The Cronbach’s Alpha Test was carried out, and the result was equal to 0.979, which proves the measurements’ reliability.

5. Analysis and Findings

5.1 Description of data and techniques used

In line with the research methodology, SEM is employed to test the study hypotheses. The measurement model (CFA) was applied to infer the relationship between constructs and indicators designed to measure elements or factors. In addition, carrying out the CFA (first-order) is deemed the first step to validate the measures underlying the structural model (SEM). While “the overall structural model identifies relations among latent variables and regressions of latent variables on observed variables” (Khine et al., 2013:6). We used SEM

AMOS software (version 23.0), along with SPSS software (23.0), to detect missing, normality, reliability data, and randomness of the sample to measure the conceptual construct of variables employed in the study, as shown in Table 1.

Table 1: The Measurements of the Conceptual Construct of Variables Employed in the Study

Construct of Variable	Coding	Measurement	Mean	Std	Skewness	Kurtosis	Cronbach'∞
The external environment as driving organisational changes.	Driver 1	-Religiously, Islamic financial transactions must be adopted in Libyan commercial banks.	4.33	.621	-.824	2.316	.73
	Driver 2	- Islamic financial transactions must be adopted to satisfy clients' desires.	4.15	.618	-.724	2.167	
	Driver 3	-Islamic financial transactions must be adopted to satisfy the desires of bank personnel.	4.02	.714	-.972	2.309	
	Driver 4	After imposing Law No. 1 of 2013, the prohibition of interest-based financial transactions, Islamic financial transactions must be adopted.	4.23	.550	.061	-.251	
	Driver 5	With the global spread of Islamic banking, Islamic financial transactions must be adopted in Libyan Commercial Banks.	4.30	.611	-.590	1.599	
The adaptation of their internal environment	Adapt 1	The availability of human resources is qualified to apply Islamic financial transactions.	3.17	1.054	-.600	-. 513	.88
	Adapt 2	The availability of human resources to evaluate financial transactions.	3.17	1.040	-.482	-.548	
	Adapt3	The training programmes qualify bank personnel as knowledgeable accountants.	3.21	1.147	-.547	-.580	
	Adapt4	Financial statements of the bank disclose its Islamic financial transactions.	3.15	1.058	-.566	-.630	
The commercial banks' adoption of Islamic financial transactions	Adopt1	By 2021, the bank can adopt Islamic financial transactions	2.43	1.118	.201	-.849	.70
	Adopt 2	The bank's technical and financial capabilities can enable it to fully transform into Islamic banking by 2021.	2.87	1.108	-.029	-.838	
	Adopt 3	Periodical financial reports disclose Islamic financial transactions on the bank's website.	2.58	1.122	-.195	-1.12	
	Adopt 4	Bank can adopt MURABAHAH formulas	.65	.477	-.649	-1.59	
	Adopt 5	Bank can adopt ISTISNA formulas	.27	.464	1.507	2.410	
	Adopt 6	Bank can adopt IJARA formulas	.24	.426	1.236	-.474	
	Adopt 7	Bank can adopt SALAM formulas	.21	.411	1.402	-.034	
	Adopt 8	Bank can adopt MUDARABAH formulas	.23	.517	4.854	45.69	
	Adopt 9	Bank can adopt MUSHARAHA formulas	.32	.466	.794	-1.38	
	Adopt 10	Bank can adopt QARD HASSAN formulas	.33	.470	.735	-1.47	
	Adopt 11	Bank can adopt *Shariah*-compliant services	.36	.670	6.699	82.28	
	Adopt 12	Bank cannot currently adopt Islamic financial formulas	.11	.311	2.530	4.428	
The demographic data	bank	Contributing banks in the search	3.49	2.96	1.61	1.80	.71
	position	Respondents' current position	3.21	.851	-.750	-.387	
	age	Respondents' age	1.99	.855	.332	.865	
	education	Respondents' educational level	2.64	.725	-.347	-.036	
	area	Respondents' specialisation area	4.86	2.14	-.217	-1.08	
	qualify	Respondents' Islamic professional qualification	1.37	.744	1.98	2.965	
	Expe-bank	Respondents' banking experience	.238	1.04	.114	-1.16	
	Expe-ISM	Respondents' Islamic banking experience	2.10	.441	.134	-.855	
The Cronbach's Alpha Test of the conceptual construct of variables employed in hypothesised modelling.							Cronb∞ = .81
Random test of the sample according to respondents' specialisation (z) = -.677, by mean							Sig = .499
Random test of the sample according to Respondents' current position (z) = - 1.752, by mean							Sig = .08

5.2 Results of SEM

5.2.1 Results of CFA Estimations

In Figure 2,and Tables 2 and 3, the results of the CFA model for the estimations of maximum likelihood (ML) were satisfactory compared with the threshold of fit indices that shown in Table 3, where the results of the CFA model were acceptable for the requirements of fitness indices of CFI = (0.95) and TLI = (0.93). While chi-square = (2.4) and RMSEA = (0.06) were below the threshold value. Likewise, in Table 2, the value of C.R shows that the correlation between observed and latent variables was significant and positive, where it was more than (1.96), and p-value was less than (0.01). Moreover, correlating (e2) with (e3) was significant and negative. Statistically, correlating this variance is essential. According to Collier (2020), the rationale of correlating error terms is that an unknown common source or standard constructor variance needs to be theoretically justified. In short, in the context of the study's conceptual framework, the question of (Driving 3) has been formulated to measure employees' desires as driving the banks to adopt Islamic financial transactions. Likewise, the question of (Driving 4) was formulated to examine Law No. 1 of 2013 as driving change and adoption. However, since this is a general law imposed forcedly onto Libyan commercial banks, there may be a strong and negative correlation between these two observed variables.

Finally, there is a statistically significant relationship between measures of constructs and indicators that have been designed to measure variables, where the coefficients of estimated parameters were significant (at p = .05); *namely, "the coefficient is significant (i.e., z ≥ 1.96 for p ≤ .05) at a given alpha level by dividing the unstandardised coefficient by the standard error"* (Khine et al., 2013). In this case, the estimated coefficients of value (F2>F3), (F2>F1), and (F1>F3) were significant with more than (0.05), namely (0.72), (0.07), and (0.07), respectively.

Table 2: Estimation of CFA Regression

			Estimate	S.E.	C.R.	P
Adapt3	<-	F2	.982	.064	15.366	***
Adapt2	<-	F2	1.000			
Driving 1	<-	F1	.867	.109	7.929	***
Driving 4	<-	F1	1.000			
Driving 5	<-	F1	1.056	.117	9.032	***
Driving 2	<-	F1	.890	.110	8.110	***
Adopt 1	<-	F3	1. 674	.199	8.411	***
Driving3	<-	F1	.997	.139	7.161	***
Adopt3	<-	F3	1.000			
Adapt4	<-	F2	.934	.058	16.059	***
Adopt 2	<-	F3	1.085	.158	8.411	***
Adapt1	<-	F2	1.005	.056	17.865	***

F1(External environment as driving to organisational change) F2(Adapting Internal Environment), F3(Commercial Banks' adoption of Islamic Financial Transactions)

Table 3: Fit Indicators Evaluating CFA Estimates

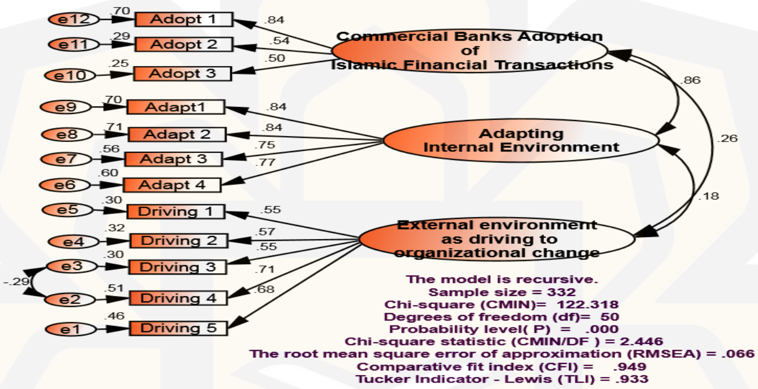
Measure	Estimated Indices	Threshold of fit indices / Interpreting
CMIN/DFchi-square	2.44	Acceptable (5 ≤ value ≤ 3) Excellent
CFI	.95	Acceptable (.90 ≤ value ≤ 1) Excellent
TLI	.93	Acceptable (.90 ≤ value ≤ 1) Excellent
RMR	.041	Acceptable (0.08≤ value ≥. 1) Excellent
SRMR	.000	Acceptable (.10≤ value ≥0) Excellent
RMSEA	.06	Acceptable (0.08≤ value ≥. 1) Excellent
P Close	.000	Acceptable (0.05> p ≥ .000) Excellent
References	(Collier, 2020; Hu and Bentler, 1999; Hair et al., 2010)	

Table 4: Estimation of CFA Covariance

			Estimate	S.E.	C.R.	P	Label
F2	>	F3	.418	.061	6.904	***	H1 supported
F2	>	F1	.062	.023	2.668	.008	H2 supported
F1	>	F3	.056	.017	3.254	.001	H3 supported
e2	>	e3	-.066	.018	-3.62	***	

F1(Adapting Internal Environment), F2(Commercial Banks' adoption of Islamic Financial Transactions) F3(External environment as driving to organisational change)

Figure 3: The Measurement Model CFA



5.2.2 Results of SEM estimations

In line with the results of the CFA estimates, the results were satisfactory compared with the threshold of fit indices, and the value of C.R of correlation between observed and latent variables was significantly and positively. However, there was a correlation between the constructs of the dependent variable (Libyan commercial banks' adoption of financial transactions) and the intermediate variable (the adaptation of the commercial banks' internal environment). The value of C.R between them was equal (0.86); according to Hair et al. (2010), there is maybe multicollinearity between them. The following step uses the overall structural model (SEM) to find a most parsimonious model that has portrayed interrelationships among observed variables and accurately reflected the associations between latent variables. It identifies regressions of latent variables onto observed variables (Khine et al., 2013) because the measurement model (CFA) treats all unobserved variables as exogenous or independent variables (Collier, 2020).

Overall, in Figure 4 and Tables 5 and 6, the results of the (SEM) model for the estimations of maximum likelihood (ML) were satisfactory compared with a threshold of fit indices that show in Tabel 6, where the results of (SEM) model were acceptable for the requirements of fitness indices of CFI = (0.95), TLI = (0.93), and RMSEA= (0.07), while chi-square= (2.6), which was below the threshold value. Likewise, the value of C.R shows that the correlation between latent variables was significant and positive, where it was more than (1.96), and p-value was less than (0.05). Moreover, the correlation between observed and latent variables was significant and positive, where it was more than (1.96), and p-value was less than (.001). Interestingly, the value correlating (e2) with (e3) was significant and negative. It is worth noting that there was a correlation between the observed variables (Adapt 4) and (Adopt 3), so they have dropped from the model. The value of the correlation between the dependent and the intermediate variable was the only one to become better (from 0.86 to 0.80), while the value of chi-square and RMSEA became lower (from 2.44 to 2.64) and (from 0.06 to 0.07). Consequently, the value (AVE) of all latent variables was more than 0.50, as shown in Table 6. Further, these constructs discriminated from one another, where the shared variance of Adapt and Driving with Adopt was (0.67) and (0.03), which was less than the value (AVE), namely (0.70) as shown in Table 7.

Figure 4: Overall Structural Equation Modelling (SEM)

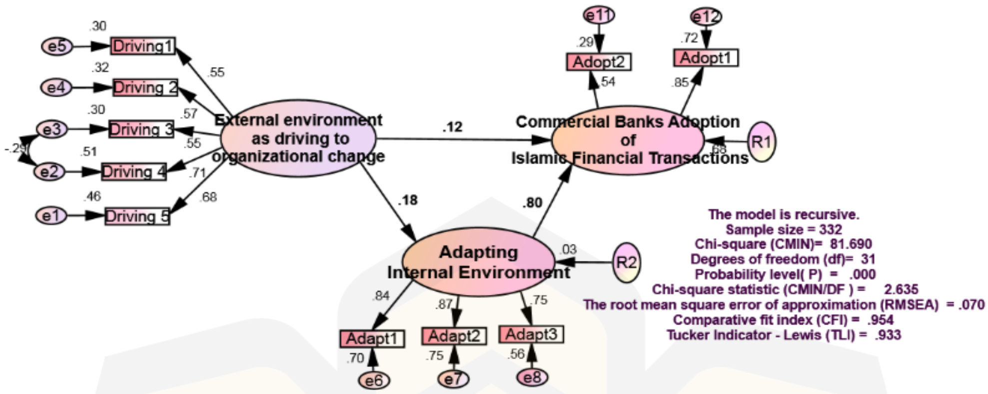


Table 5: Estimating Overall Structural Equation Modelling (SEM)

Conceptual Construct			Estimate	S.E.	C.R.	P	Label
F2	<-	F1	.459	.175	2.629	.009	H1 supported
F3	<-	F2	.832	.062	13.350	***	H2 supported
F3	<-	F1	.313	.150	2.083	.037	H3 supported
e2	<-	e3	-.066	.018	-3.584	***	
Driving 2	<-	F1	1.000				(AVE) = .61
Driving 3	<-	F1	1.117	.165	6.785	***	
Driving 4	<-	F1	1.123	.139	8.109	***	Cronbach'∞ = .73
Driving 5	<-	F1	1.189	.140	8.492	***	
Driving 1	<-	F1	.977	.131	7.452	***	
Adapt 2	<-	F2	1.000				(AVE) = .82
Adapt 1	<-	F2	.980	.056	17.449	***	Cronbach'∞
Adapt 3	<-	F2	.951	.063	15.171	***	= .85
Adopt 2	<-	F3	.643	.077	8.338		(AVE) = .70
Adopt1	<-	F3	1.000				Cronbach'∞ = .63

F1(Adapting Internal Environment), F2(Commercial Banks' adoption of Islamic Financial Transactions) F3(External environment as driving to organisational change)

Table 6: Fit Indicators Evaluating (SEM) Estimates

Measure	Estimated Indices	Threshold of fit indices / Interpreting
CMIN/DF chi- square	2.64	Acceptable (5 ≤ value ≤ 3) Excellent
CFI	.95	Acceptable (.90 ≤ value ≤ 1) Excellent
TLI	.93	Acceptable (.90 ≤ value ≤ 1) Excellent
RMR	.038	Acceptable (0.08≤ value ≥. 1) Excellent
SRMR	.000	Acceptable (.10≤ value ≥0) Excellent
RMSEA	.07	Acceptable (0.08≤ value ≥. 1) Excellent
P Close	.000	Acceptable (0.05> p ≥ .000) Excellent
References	(Collier, 2020; Hu and Bentler, 1999; Hair et al., 2010)	

Figure 2: Measurement Model CFA

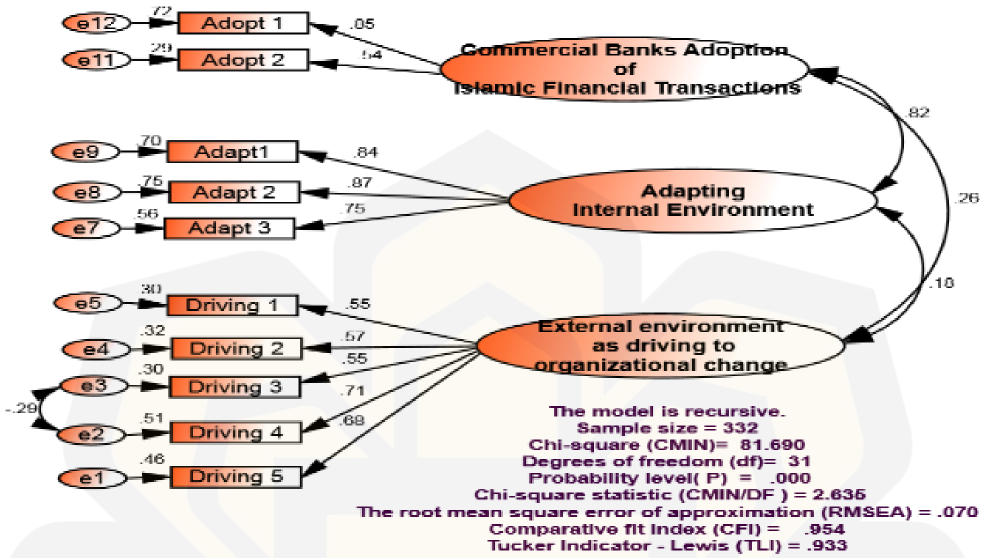


Table 7: Estimating Extracted Variance of CFA

Latent variables	Adopt	Adapt	Driving
Adopt	.70		
Adapt	0.67	.82	
Driving	0.03	0.07	.61

6. Discussion

This section discusses the results of SEM estimations to offer insights into the study. The authors argued that the external environment might drive change and Libyan commercial banks' adoption of Islamic financial transactions, but these banks' adoption will be related to their capability to adapt to their internal environments. In the context of hypothesised modelling, statistically, the results of SEM supported the hypotheses of the study, namely (H1), (H2), and (H3). The correlation between latent variables was significant and positive, as shown in Table 5. The value of C.R was more than (1.96), and p-value was = (0.009) H1, (***) H2, and (0.037) H3, which was less than (0.05). Thus, modelling reflects that the Libyan commercial banks' external environment as driving organisational changes explained 18% and 12%, while Libyan commercial banks' internal environments explained 80% from the change into their adoption of Islamic financial transactions. This reflects that the Libyan commercial banks' decision to change and adopt Islamic financial transactions to achieve an economic and social value of stakeholders (members of Libyan society) will be related to their adaptation to the internal environment.

Overall, the results were consistent with respondents' answers to the question that Libyan commercial banks can adopt Islamic financial formulas, and their overall agreement was *murabahah* =(65%), *istisna* =(25%), *ijara* =(23.8%), *salam* =(22%), *mudarabah* =(22%), *musharaka* =(32%), *qard hassan* = (33%), *Shariah*-compliant services=(33%). The current technical capability of Libyan commercial banks enables them to adopt the *murabahah* formula more than other formulas. The respondents answered that the Libyan commercial bank's technical and financial capabilities could enable them to transform fully into Islamic banking by 2021, while 225 respondents disagreed. These results reflect Libyan commercial banks' obstacles when adopting Islamic financial transactions and imposing Law No. 1 of 2013. These results correspond with the results of recent studies conducted on Libyan commercial banks, as shown in Table 8.

Table 8: Studies' that Examined Challenges and Problems Facing Libyan Commercial Banks

Author	Purpose	Finding
(Massoud and Mohammed, 2020)	Examining the practices of the *Shariah* supervisory body in the Libyan Islamic banks.	The results showed a need to develop a practical model for the *Shariah* supervisory body while developing the *Shariah* supervisory methodology consistent with the nature of Islamic banks in Libya.
(Elkrghli , 2020)	Examining the link between E-marketing and profitability of Wahda Bank as one of the Libyan banks in Benghazi City.	The weakness of technological and knowledge infrastructure.
(Al-Qasim and Shaala, 2021)	Investigating obstacles that prevent applying Islamic financing forms to achieve sustainable development in Libya.	The constraints that stand in the way of applying Islamic banking are the legal and administrative environment. The judiciary in which banks operate.
(Mahjoub et al., 2020)	Examining commitment of the Libyan commercial banks (Jomhouria, Sahara, National Commercial and Wahda) to the central bank of Libya circular number (3) 2005, regarding liberalising the prices of banking services.	After amending the 2005 law and issuing the 2013 law prohibiting interest-based financial transactions, Libyan commercial banks have raised the prices of banking services. There was also weakness in the quality of banking services, from a view of banks' clients under study.

7. Conclusion and Recommendation

The results revealed a causal effect of the independent variable (external environment as driving to organisational change) on a dependent variable (commercial banks' adoption of Islamic financial transactions) that is transmitted by a mediator variable (adapting their internal environments). Thus, this study addressed a research gap that opens new horizons to examine Libyan commercial banks' capability to adapt their internal environment as an obstacle to adopting Islamic financial transactions. Future research should not focus only on stakeholders' desire to drive commercial banks' change to adopt Islamic financial transactions but also examine commercial banks' capability to adapt their internal environment to do so.

References

Abdalla, M. A. D., Muhammad Ridhwan, A., & Fuadah, J. (2015). Testing the model of success experience in converting into Islamic banks in Libya: Structural Equation Modeling. *Journal of Islamic Banking and Finance 3*(2), 31–46.

Adams, J., Hafiz, K., Robert, R., & David, W. (2007). *Research methods for graduate business and social science students*. India: SAGE.

Ahmad, N. S. M., & Daw, A.S. (2015). Compliance with AAOIFI Guidelines in general presentation and disclosure by Libyan Islamic Banks. *World Journal of Entrepreneurship, Management and Sustainable Development, 11*(2), 90–99.

Al-Qasim, M., & Shaala, K.H. (2021). The obstacles facing the application of the Islamic financing forms to achieve sustainable development. *Economic Studies Journal (ESJ), 4*(1), 98–138.

Alharbi, A. (2015). Development of the Islamic Banking System. *Journal of Islamic Banking and Finance 3*(1), 12–25.

Ali, W., Siva, Mu., & Morakinyo, D. (2018). Adoption of Shariah compliant peer-to-business financing platforms by SMEs: A conceptual strategic framework for fintechs in Bahrain. *International Journal of Innovative Technology and Exploring Engineering, 8* (Special Issue 2), 407–12.

Amin, H., Abdul Rahim, A.R., Stephen, L. S., & Ang Magdalene, C.H. (2011). Determinants of customers' intention to use islamic personal financing: the case of Malaysian Islamic banks. *Journal of Islamic Accounting and Business Research, 2*(1), 22–42.

Anouze, A. L. M., Ahmed, S. A., & Abdulkareem, S. A. (2018). Customer satisfaction and its measurement in islamic banking sector: a revisit and update. *Journal of Islamic Marketing*, *10*(2), 565–88.

Al Balushi, Y., Stuart, L., & Zakaria, B. (2019). Determinants of the decision to adopt islamic finance: evidence

from Oman. *ISRA International Journal of Islamic Finance 11*(1), 6–26.
Bananuka, J., Twaha, K. K., Musa, K., & Irene, N. (2019). Determinants of the intention to adopt Islamic banking in a non-Islamic developing country: the case of Uganda. *ISRA International Journal of Islamic Finance, 11*(2), 66–86.
Bolman, Lee G., & Deal, T.E. (2008). *Reframing organizations artistry, choice, and leadership*. 4th ed. Jossey-Bass A Wiley Imprint.
Bukair, A. A., & Abdul Rahman, A. (2015). Bank performance and board of directors attributes by Islamic Banks. *International Journal of Islamic and Middle Eastern Finance and Management, 8*(3), 291–309.
Camisón, C., & Villar-López, A. (2014). Organizational innovation as an enabler of technological innovation capabilities and firm performance. *Journal of Business Research, 67*(1), 2891–2902.
Cantore, S.P. (2017). Positive approaches to organizational change, pp. 272–96 in *The Wiley Blackwell Handbook of the Psychology of Positivity and Strengths-Based Approaches at Work*.
Collier, J.E. (2020). *Applied structural equation modeling using AMOS*. Routledge.
Creswell, J.W. (2012). *Educational research: planning, conducting, and evaluating quantitative and qualitative research*. Nebsraska: Pearson.
Daft, R. (2010). *Organization theory and design*. 10th ed. Cengage Learning.
Damanpour, F., & Deepa, A. (2011). Managerial innovation: conceptions, processes, and antecedents. *Management and Organization Review, 8*(2), 423–54.
Damanpour, F., Fernando, S.H., & Holly H.C. (2018). Internal and external sources and the adoption of innovations in organizations. *British Journal of Management, 29*(4), 712–730.
Damanpour, F., & Schneider, M. (2006). Phases of the adoption of innovation in organizations: effects of environment, organization and top managers. *British Journal of Management, 17*(3), 215–36.
Diamond, D.W., & Raghuram G. R. (2000). A theory of bank capital. *Journal of Finance, 55*(6), 2431-2465.
Dinc, Y. (2020). Product development in Islamic finance and banking in secular economies. *Journal of Islamic Accounting and Business Research*, *11*(9), 1665-1676.
Dusuki, A.W. (2008a). Banking for the poor: the role of Islamic banking in microfinance initiatives. *Humanomics, 24*(1), 49–66.
Dusuki, A. W. (2008b). Understanding the objectives of islamic banking: a survey of stakeholders' perspectives. *International Journal of Islamic and Middle Eastern Finance and Management, 1*(2):132–148.
Elkrghli, S. (2020). The relationship between electronic marketing and profitability of Libyan banks. *Economic Studies Journal (ESJ), 3*(4), 193–213.
Evangelista, R., & Vezzani, A. (2010). The economic impact of technological and organizational innovations. a firm-level analysis. *Research Policy, 39*(10), 1253–1263.
Exposito, A., & Sanchis-Llopis, J.A. (2018). Innovation and business performance for spanish smes: new evidence from a multi-dimensional approach. *International Small Business Journal: Researching Entrepreneurship, 36*(8), 911–931.
Ferguson, P. R. (1993). *Business economics: the application of economic theory*. New York: Macmillan Press
Freeman, R. E., Jeffrey, S. H., Andrew C. W., Bidhan, P., & Simone, C. (2010). *Stakeholder theory- the state of the art*. Cambridge University Press.
Gait, A., & Worthington, A. (2008). An empirical survey of individual consumer, business firm and financial institution attitudes towards Islamic methods of finance. *International Journal of Social Economics*, *35*(11), 783–808.
Gorddard, R., Matthew J. C., Russell, M. W., Dan, W., & Michael, D. (2016). Values, rules and knowledge: adaptation as change in the decision context. *Environmental Science and Policy*, *57*, 60-69.
Hiriyappa, B. (2008). *Strategic management for chartered accountants.* New Age International Pvt Ltd Publishers.
Hu, L. T., & Peter, M. B. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling 6*(1), 1–55.
Iqbal, Z., & Mirakhor, A. (2011). *An introduction to islamic finance.theory and practice*. John Wiley & Sons (Asia) Pte. Ltd.
Hair, J.F., William C. B., Barry J. B., & Rolph E. A. (2010). Testing structural equations models. In *Multivariate Data Analysis*. Pearson Prentice Hall.
Juma, B., Katamba, D., Nalukenge, I., Kabuye., F., & Sendawula, K. (2020). Adoption of Islamic banking in a non-Islamic country: evidence from Uganda. *Journal of Islamic Accounting and Business Research*, 11(5),

989-1007.

Khan, F. (2010). How 'Islamic' is Islamic banking? *Journal of Economic Behavior and Organization, 76*(3), 805–820.

Khine, M.S., Lim, C. P., & Donald., (2013). *The application of structural equation modeling in educational research and practice*. Sense Publishers.

Maali, B., & Christopher, N. (2010). Accounting, religion and organisational culture: the creation of Jordan Islamic bank." *Journal of Islamic Accounting and Business Research 1*(2), 92-113.

Mahjoub, M., Muhammad, A. S., & Amal, A. E. (2020). The extent of commitment of the libyan commercial banks to the central bank of libya circular number (3) 2005 , regarding liberalizing the prices of banking services and the criteria of determining them and impacting on their quality. *Economic Studies Journal (ESJ) 3*(2), 164–208.

Massoud, M. K., & Mohammed, M. O. (2020). Shari'ah supervisory in Islamic banks in libya: an analytical and appraisal study. *Democratic Arabic Center for Strategic, Political & Economic Studies, 3*(13), 127–145.

Meyer, J. W., & Rowan, B. (1977). Institutional theory and strategic management as myth and ceremony. *The American Journal of Sociology, 83*(2), 340–363.

Nomran, N. M., & Haron. R. (2020). Shari'ah supervisory board's size impact on performance in the Islamic banking industry: an empirical investigation of the optimal board size across jurisdictions." *Journal of Islamic Accounting and Business Research, 11*(1),110–129.

Nomran, N. M., Haron, R., & Hassan, R. (2018). Shari'ah supervisory board characteristics effects on Islamic banks' performance: evidence from Malaysia." *International Journal of Bank Marketing,* 36(2), 290–304.

Ram, J., & Swatman, P.M.C. (2008). Enterprise Resource Planning (ERP) innovation process: Towards development of an integrated framework for successful adoption and implementation." pp. 802–813 in *ACIS 2008 Proceedings - 19th Australasian Conference on Information Systems*.

Sandal, N.A. (2019). The politics of regime mainstreaming: knowledge production and the institutionalization of Islamic finance. *Politics and Religion*, 1–23.

Sanjeepan, N. (2016). Strategic planning and analysis for commercial bank: an commercial bank operating in Srilanka. *Asian Economic and Social Society, 6*(9), 195–213.

Scott, W. R., & Davis, G.F. (2016). *Organizations: rational, natural, and open systems*. New York: Routledge.

Sealey, C. W., & Lindley, J.T. (1977). inputs, outputs, and a theory of production and cost at depository financial institutions. *The Journal of Finance* 32(4), 1251–1266.

Sekaran, U., & Bougie, R. (2016). *Research methods for business: a skill building approach*. John Wiley & Sons Ltd.

Shafii, Z., Shahida, S., & Adel, S. (2016). Obstacles and motivation behind conversion of conventional banks to Islamic banks: an overview. *International Review of Management and Business Research, 5*(3), 1021–1038.

Siddiqi, M. F., Shafiullah, J., & Karim, U. (2019). Maqasid al Shariah and stakeholders' wellbeing in Islamic banks: a proposed framework. *Business & Economic Review, 11*(1),83–102.

Soualhi, Y. (2015). Application of Shariah contracts in contemporary Islamic finance: a Maqasid perspective. *Intellectual Discourse,* 23(Special Issue), 333–354.

Tolbert, P. S., & Zucker, L.G. (1996). The institutionalization of institutional theory." pp. 175–190 in *Handbook of organization studies*. Cornell University ILR School.

Werner, R.A. (2016). A lost century in economics: three theories of banking and the conclusive evidence. *International Review of Financial Analysis,* 46, 361–379.

Zubaidah, S., & Mudrifah. (2019). CRS implementation from western to the islamic perspective: maqasid al-shari'ah and maslahah. *KnE Social Sciences, 3*(13), 743–765.