

# Sustainable Islamic Banks' Financing System Through Supply Chain Operations Reference Model: A Novel Perspective

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## Abstract

Islamic banking is an emerging system having its roots especially after the global financial crisis of 2008 and is linked with real business transactions. Similarly, the Supply Chain Operations Reference (SCOR) model represents real business transactions and can support understanding Islamic banks' financing system in a better way but both are less studied together. Therefore, the purpose of the study is to elaborate on Islamic banks' financing system through the SCOR model. Qualitative case study research is suitable for an in-depth understanding of less discovered areas of knowledge so, this research used this methodology. This study reveals that Islamic banks adopt the purchase and sell operations of financed assets in almost all modes of finance implying a real economic situation which differentiates Islamic banks' financing from its conventional counterpart. Purchasing is related to the sourcing process of the SCOR model whereas selling is aligned with the delivery process of the SCOR model. Thus, Islamic banking is operationalized as a trading company along with a banking company. In conclusion, the combination of Islamic finance and supply chain connects the financial sector with the real sector and opens new dimensions of research. It can lead current and potential stakeholders toward a win-win situation by avoiding disasters such as the global financial crisis in 2008 that neglects the real economy.

**Keywords:** Sustainable Islamic banking; Finance management; Qualitative case study research paper; Supply chain management; Purchasing and sourcing; Sales and delivery.

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### 1. Introduction

Islamic banking financing and supply chain management have been discussed a lot separately but recently, there are few studies that discussed Islamic finance and supply chain together (Ahmed et al., 2021, 2022, 2023; Gundogdu, 2010, 2020; Moh'd, 2018; Moh'd et al., 2017; Oladokun et al., 2015). These studies clearly show that Islamic finance and supply chain of the financed assets are clearly related to each other, and this link is not the same as of the conventional financing system because the Islamic financiers must be involved in the supply chain of the financed assets. However, there is a lack of studies on Islamic finance and the SCOR model which is the very common model in the field of the supply chain management. Within the Islamic banking and finance, there is issue of the similarity or equality perception of Islamic and conventional finance but the study of Islamic finance along with the SCOR model of the financed assets can differentiate Islamic banks' financing from the conventional counterparts.

Islamic banking is also known as shariah banking, and it is growing worldwide. Although Islamic banking is expanding and has been accepted in the international financial system, there is a lack of awareness about the Islamic or Shariah banking product usages for the transactions. And, similarly, there is also a lack of knowledge and understanding about the contracts in Islamic or Shariah banking (Arfan & Arfan, 2021); hence, the misunderstanding on accusing Islamic banking is similar to conventional banking whereas Islamic banking is linked with real business transactions. On the other hand, the Supply Chain Operations Reference (SCOR) model represents real business transactions and can support understanding Islamic banks' financing system in a better way but both are less studied together. Supply Chain Management (SCM) also emerged as Islamic banking a few decades ago. Both are mostly based on the real world. Islamic banking is called asset-backed financing; this characteristic differentiates it from its conventional counterpart (Ethica, 2017; Usmani, 1998); similarly, assets are also essential parts of supply chains other than the services supply chains. Still, both fields are less studied collectively (Ahmed et al., 2022). Knowledge and understanding of Islamic banking is still lacking as the underlying operational processes are not made known to stakeholders as found by State Bank of Pakistan et al. (2014) during a survey of 10,000 people where 95% of non-banked and 83% of banked respondents self-accepted that they do not understand the Islamic banking model. Islamic financing involvement in the financed assets supply chains can be easily understood after knowing the Islamic banking financing modes.

Studying Islamic banking with the supply chain of the financed assets can support the solution of the real business problems (Ahmed et al., 2022) and can also solve

these understanding issues with the help of qualitative research, as qualitative research is more fruitful in getting better understanding (Merriam & Tisdell, 2016). The Supply Chain Operations Reference (SCOR) model represents real business and Islamic banking and the SCOR model study may have two different dimensions: the first dimension is easy to communicate and understand. This dimension is to apply the SCOR model to Islamic banks' product development process, but it is not the current article's focus. The second dimension is to go in-depth on Islamic finance modes and align them with the functions and processes of the SCOR model. The second dimension is the novel dimension, differentiating Islamic banks' financing from its conventional counterpart. It ultimately can support understanding of the Islamic banking model which is a model between a banking company and a real sector firm such as a trading or leasing company, so, this dimension is the focus of the current study. With a better understanding, this model will be more acceptable for the masses not only for Muslims to avoid Riba as per Quran 2;279 and other ayat but also for other than Muslims also because of the involvement of Islamic banking in the financed assets' supply chain. It should be noted that after the 2008 international financial crisis, Islamic banking is growing very fast, and non-Muslims are also providing attention to Islamic finance (Wahid & Furqani, 2013).

This study aims to elaborate the Islamic banks' financing system through the SCOR model. Therefore, the study has research question (RQ): How can the SCOR model support elaborate Islamic banks' financing systems? In this regard, what are the specific functions and related processes of the SCOR model? This novel perspective contributes to Islamic finance and supply chain literature by filling the literature gap and can support practitioners and other stakeholders to understand both fields' interaction which is very different from the conventional paradigm. The combination of Islamic finance and Supply chain connects the financial sector (e.g., banking) with the real sector (i.e., real businesses such as trading and manufacturing). It can lead current and potential stakeholders toward a win-win situation by avoiding disasters such as the global financial crisis in 2008 that neglects the real economy.

## 2. Literature Review

This section discusses the related literature about the study. There have been many discussions about Islamic banking financing and supply chain management separately but recently, there have been a few research studies that have combined both of these subjects (Ahmed *et al.*, 2021, 2022, 2023; Gundogdu, 2010, 2020; Moh'd, 2018; Moh'd *et al.*, 2017; Oladokun *et al.*, 2015). These studies make it abundantly evident that Islamic finance and the supply chain of financed assets

are strongly linked. This connection is distinct from that of the conventional financing system since Islamic financiers are required to be engaged in the financed assets' supply chains. There is scarcity of studies on Islamic financing and the SCOR model which is an established model in supply chain management. Within the Islamic banking and finance, there is issue of the similarity or equality perception of Islamic and conventional finance but the study of Islamic finance along with the SCOR model of the financed assets can differentiate Islamic banks' financing from the conventional counterparts. Therefore, the following sections discuss both areas of knowledge i.e., Islamic banking and supply chain management especially Supply Chain Operations Reference (SCOR) Model.

### **2.1 Islamic Banking and Supply Chain Operations Reference (SCOR) Model**

Historically, Muslims have managed their financial systems without Riba (interest) for around 1200 years (Ghazi, 2010) but after colonisation, the systems of Muslim countries have changed including the financial system which resulted in the form of financial exclusion. Islamic banking started in the second half of the last century still, it lacks contemporary theories (Ahmed & Ismail, 2021b). On one side, Islamic banking complies with the Shariah boundaries but on the other hand, they have to follow banking limitations (Ahmed et al., 2022). Therefore, Islamic banking communication/understanding is challenging for different groups of people (Ahmed & Ismail, 2021a) especially for those those who do not have background of Islamic banking . A ten thousand people survey revealed that most people do not know the Islamic banking model (State Bank of Pakistan et al., 2014). Similarly, another recent research concluded that there is a lack of awareness about Shariah banking usage for transactions and also a lack of knowledge and understanding about the contracts in Islamic banking (Arfan & Arfan, 2021). Therefore, the supply chain operations reference (SCOR) model of the financed assets can support an understanding of Islamic banking and its difference from its conventional counterparts. Therefore, the coming sections discuss Islamic banking then, the SCOR model.

### **2.2 Islamic Banking context vs Islamic Finance Concepts**

Since Islamic banking is part of the financial sector, which has the primary purpose of financial intermediation (Ibrahim Musa et al., 2020), it has two parts like other financial intermediations. The first part is called deposit or, in general terms, the liability side. The second part is the financing side called in general term asset side. On the deposit side, Islamic banks primarily take remunerative deposits on Mudarabah (Capital and worker partnership), it is a type of partnership where a partner invests (called Rabbul Maal), and another partner

manages this investment based on sharing ratio as per actual profit (Omar *et al.*, 2019).

The financing modes comprise Murabaha, Ijarah, Musharaka, Diminishing Musharaka, Salam, Istisna, and other modes (like Musawama). Murabaha is a trading transaction where the sellers disclose their profit and cost. Ijarah is a rental (lease) contract primarily used for longer-term financings like equipment finance, and Musharakah is a partnership where profit and loss are shared (Khan *et al.*, 2019). Diminishing Musharakah is a hybrid Islamic finance Mode where the first step is Shirkhatul Melk which is joint ownership between client and bank in the asset. In the second step, there is the "Ijarah" contract where the bank rents out its share in the asset to the client, and in the last step, the bank sells its Musharakah units to the clients gradually. Istisna is an Islamic Manufacturing contract (Aliero & Achida, 2016; Gundogdu, 2010), whereas Salam is a deferred delivery sale (Razak & Saupi, 2017). The last-mentioned category may include Musawamah as a mode of finance. Musawamah is a (simple) sale contract, and the Islamic banking industry uses this as a mode of finance (Khan *et al.*, 2019). Table 1 provides a short description of these contracts. Typically, Islamic finance modes are categorised based on contract nature (Ahmed *et al.*, 2021).

**Table 2.1: Contracts being used in Islamic banks' financings:**

Islamic Finance Mode	About the mode	Short Description
Murabaha	Islamic finance contracts that were available in Islamic literature for more than a thousand years	It is a trade-based Islamic finance contract where the seller discloses the cost or profit.
Muswama		It is a typical sale, a trade-based Islamic finance contract where the seller does not disclose the cost or profit.
Istisna		Istisna is also a trade-based Islamic finance contract where the purchaser orders to Make or Produce some asset.
Salam		A trade-based Islamic finance contract where contract is made on a homogeneous asset, the price paid at the time of contract but the asset will be delivered in future.
Musharakah		Partnership contract
Ijarah		A lease contract

Diminishing Musharaka	Emerging terms in Islamic finance	Islamic bank and client become joint owners of an asset by executing the Shirkah tul Melk agreement, and then Islamic bank leases its share to the client. The client pays rent and also gradually purchases the share of Islamic bank share in the asset.
Running Musharaka		It is a Shariah Compliant alternate for running finance. It is based on Shirkah tul Aqd which is similar to the concept of business partnership.

On the Financing side, Islamic banks have used many Islamic finance concepts mentioned in Islamic literature and sources for over a thousand years. This point differentiates the Islamic finance concepts in Islamic literature and sources that are too old from the Islamic banking context which is very recent trend. The relationship between them is that Islamic finance concepts are being used in the modern Islamic banking industry.

There should also be clarification between Islamic finance concepts and the Islamic finance industry as a new and emerging context. The Islamic finance industry combines three types of institutions that use Islamic finance concepts. It consists of Islamic banking 71.7%, Islamic Capital Market, 27% and Takaful (Islamic Insurance), 1.7% (Islamic Financial Services Board, 2019).

## 2.2 Supply Chain Management Functions and SCOR Model 12.0

In this study, there are two types of components from the supply chain. These are supply chain management functions and processes. Processes are the parts of the SCOR model whereas, by the term Supply Chain Management (SCM) Functions, this study means Purchasing, Production and Sales. In this study, these functions have been adapted to integrate Hugos (2018b) Quang et al. (2016) models.

The Supply Chain Operations Reference Models' short form is the SCOR model (Kusrini et al., 2019). This well-known model describes the supply chain's elements and activities (Hammadi et al., 2018). It was initiated by the Supply Chain Council (SCC) in 1996 (Kusrini et al., 2019) which was merged with APICS in 2014, and this APICS SCC is part of APICS ". The SCOR Model (ver. 10) consists of five key processes: Plan, Source, Make, Deliver and Return (Georgise et al., 2017). However, in SCOR Model Ver. 11 and 12, Enable is also included (APICS, 2017; Rios et al., 2019). Figure 2.1 shows the 12th version of the SCOR model.

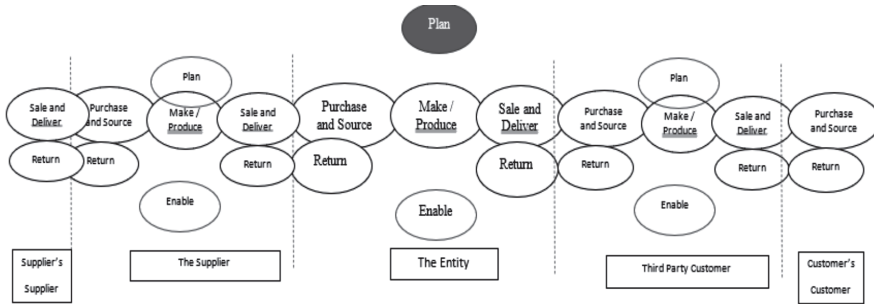


Figure 2.1 : SCOR model Version 12

Source: Adapted from APICS, (2017, p. v)

The selected SCM functions in this article are purchasing, production and Sales of the financed assets and these are directly related to three forward processes in the SCOR Model. “Sourcing is an essential component of purchasing” (Giunipero et al., 2019, p. 1); therefore, the sourcing process of the SCOR model is related to the purchasing function. Make, the process of the SCOR model, is related to the transformation of products and services to meet planned and actual orders (Chehbi-Gamoura et al., 2019, p. 4); so, the making process is similar to the production function. Deliver is mostly used with sales and distribution. According to Ayyildiz et al. (2020), “sale and delivering” is related to the shipment. Therefore, the delivery process of the SCOR model is related to sales and distribution. The purchasing function is associated with the source, the Production function is related to the Make, and the Sales function is connected to the Deliver process of the SCOR Model. The return process reverses these functions, and the remaining two processes, i.e., the Plan and Enable processes, support all other processes. So, it can be concluded that the SCM Functions in this study cover the primary three forward processes of the SCOR Model directly and the other remaining processes of the SCOR Model indirectly. After describing the key concepts and context, the following section discusses the Methodology.

### 3. Methods

The literature of the similar approach i.e., combined studies of Islamic finance and supply chain of the financed assets used multiple research methodologies. Some of the literature is based on the conceptual working alone (Ahmed et al., 2023; Gundogdu, 2020); Ahmed et al., (2022) combined the Systematic Literature Review (SLR) method along with the conceptual working; however, some of them have used the qualitative case study research method (Ahmed et al., 2021;

Gundogdu, 2010). So, this is a qualitative case study research paper because the case study research is suitable as per all three criteria provided by Yin (2018). As per norms in case study research, the units of analysis are the cases i.e., the Islamic banks. The purpose (objective) of the study is to elaborate on Islamic banks' financing system through the SCOR model; so, the Islamic banks as the unit of analysis can support to fulfil this purpose. The topic (i.e. Islamic finance and supply chain combined study) has been less studied previously as confirmed by a systematic literature review (Ahmed et al., 2022), and in-depth research is required. Observations, document reviews and interviews are the primary data collection methods in qualitative research, according to most prominent methodologists such as Merriam and Tisdell (2016). So, this study employed multiple sources, i.e., interviews, non-public documents collection and reviews, and relevant webpages reviews. The initial phase of this research used data mostly from academic sources in the form of literature reviews and academic discussions especially in the supply chain and Islamic finance fields from 2019. This phase found the research gap that although Islamic finance and supply chain are considered two separate fields of study, interestingly; these have some less-discovered combined dimensions including the current article dimension. As a result, the interview questions have been prepared and improved with the support of the literature sources about the supply chain especially the SCOR model and Islamic finance fields. So, the later phase of this research used the improved questions and collected the data from the formal interviews of the Islamic banking industry officials. This article focuses on reporting the findings from the formal interviews.

### **3.1 The Sampling**

The study uses the purposive sampling method because it is more suitable for qualitative research, as mentioned by Merriam and Tisdell (2016). Table 2 describes the interviewees who were included in this study. These interviewees were selected purposively and represented Islamic finance products and transactions' development and checking departments in different types of Islamic banks. They have a background in product development, Shariah audit, Shariah compliance and similar departments. They have been selected based on relevant departments to this research (i.e., knowledge and well understanding of Shariah and business processes of Islamic financing transactions) and many years of experience in Islamic banking. These Islamic banking institutions can be categorised as full-fledged Islamic banking (FFIB) which cannot do conventional banking as per their licence or Islamic banking with conventional banking (IBWCB). In Pakistan, five banks are fully Islamic, and 17 are doing Islamic banking with conventional banking (Islamic Banking Department - State Bank of Pakistan, 2020).



Similarly, Islamic banks can also be divided into local and international banks. So overall, their banks have four types of Islamic banks. The banks in this study represent all four types of Islamic banks, as mentioned in a column of Table 2.

There was sampling issue that very few people have the Islamic banking shariah in-depth and business knowledge. These people mostly belong to the Product Development, Shariah Compliance, and similar departments of the Islamic banks; so, these have been selected as the participants of the study as summarised in the Table 3.1.

**Table 3.1: Interviewees/Participants of the Study**

Cases (Banks)	Designation	Experience in Islamic banking	Department	Current Islamic Bank Covered by Type	Further Experience
Bank A	Manager	More than seven Years	Product Department	Full-fledged Islamic Bank (FFIB) - Pakistan Based	Tax Consultant
Bank E	Unit Head, Asset products	Six Years	Product Department	Full-fledged Islamic Bank (FFIB) – International	Teaching
Bank D	Unit Head	Nine Years	Shariah Compliance	Islamic Bank with Conventional Banking (IBWCB) – Pakistan-based International	
Bank C	Manager	Six Years	Shariah Audit	Islamic Bank with Conventional Banking (IBWCB) –International	Shariah Consultant
Bank A	Assistant Manager	More than four years	Shariah Compliance	Full-fledged Islamic Bank (FFIB) - Pakistan Based	SME business
Bank A	Senior Sharia scholar and Assistant Manager	Almost seven years	Product Development	Full-fledged Islamic Bank (FFIB) - Pakistan Based	University Teaching
Bank C	Head	Six Years	Governance and Control, Islamic Banking	Islamic Bank with Conventional Banking (IBWCB) –International	Conventional Banking
Bank B	Vice President	More than thirteen years	Product Development and Shariah Compliance	Full-fledged Islamic Bank (FFIB) - Pakistan-based 2	Confectionery
Bank B	Assistant Manager	Around four to five years	Shariah Compliance	Full-fledged Islamic Bank (FFIB) - Pakistan-based 2	Teaching
Bank E	Assistant Vice President	Around four years	Shariah Compliance	Islamic Bank with Conventional Banking (IBWCB) –International 2	Teaching

This study's evidence and data also consist of official web pages and documents of the above diversified Islamic banking institutions. Given the word limit, the current study's findings consist of wordings from the initial four interviews in Table 2. However, the remaining interviews and data confirm these findings due to the highly regulated banking industry. In other words, the interviewees are selected until no 4 as the data was mostly saturated. This situation is the same as Merriam and Tisdell (2016) guided that later evidence confirms the earlier findings in qualitative research.

### **3.2 Analysis and its Appropriateness**

Yin (2018) is a very famous case study research methodologist and provided 4 general analysis strategies and multiple analytical techniques for the case study research. Among these general strategies for the case studies analysis, this study mainly uses explanation-building general analysis strategy along with pattern matching analytical technique as proposed by Yin (2018) because these are the most suitable for new areas of the research like this study (combination of Islamic finance and SCOR model of the financed assets). For transcription or data storage and retrieval, the study used computer-based tools. The study gets support from Nvivo 12 plus software for analysis of the qualitative case study data.

### **3.3 Validity and Reliability**

It is noticeable that the validity and reliability in qualitative research are different from quantitative research as mentioned by the qualitative research literature such as Yin (2018) and Merriam (2016). Validity and reliability show the trustworthiness of the study (Merriam 2016). According to Yin (2018), the validity of a study has three types: construct validity, internal validity, and external validity. For Construct Validity, he suggests using multiple sources of data. Similarly, Merriam (2016) also recommends the Triangulation of data. For internal validity, Yin proposes to use analytical tools or strategies like pattern matching, explanation building, and logic model analysis tools or address the rival explanation strategy, as he discusses in his book's analysis chapter. Audit Trail is also proposed by Merriam (2016) to maintain the study's trustworthiness. According to Merriam (2016), external validity is generalizability, and in qualitative research, the reader cannot generalise the results in a statistical manner. Integrating Yin's and Merriam's methodological research approaches, this study employs multiple sources i.e., interviews, non-public documents collection and reviews, and relevant webpages reviews for the construct validity. For internal validity, this study used explanation building and pattern matching analysis techniques as Yin (2018). Furthermore, this research also used the protocol questions, developed the study database, and maintained the chain of evidence recommended by Yin to accommodate the reliability concerns (Yin 2018).

## 4. Findings

This section discusses the results (findings) of this study. The first sub section discusses the study's context: the Islamic banking system in Pakistan has four different types of Islamic banks.

### 4.1 Overview of the Context

This study includes different types of Islamic banks operating in Pakistan. The first two banks of this study are full-fledged Islamic banks that only do Islamic banking and cannot do conventional banking. The first is a full-fledged Islamic bank, a Pakistan-based bank (FFIB-PB), and the second is an international full-fledged Islamic bank (FFIB Int.). This study's third bank is a Pakistan-based bank doing Islamic banking and conventional banking. This bank also has branches in other countries to be called Pakistan-based international banks (IBWCB PBI). This study's last bank offers Islamic financing structures (modes) to consumers and business clients. The selected bank is one of the international banks that operate in Pakistan and other countries in conventional and Islamic ways (IBWCB Int.). Table 4.1 summarises this information about the related banks.

**Table 4.1: The Context of the Study**

Code Name	Islamic banking Types represent banks
FFIB-PB	Ful-Fledged Islamic Bank - Pakistan Based
FFIB-Int.	Ful-Fledged Islamic Bank – International
IBWCB-PBI	Islamic Banking with Conventional Banking – Pakistan-Based International
IBWCB-Int.	Islamic Banking with Conventional Banking – International

This sample selection criterion may support later comparative studies of Islamic and conventional banks' financing systems and banks' financing systems in different countries. In that case, communicating this new perspective of IF-SC will be easier for other countries and background experts. The findings can also be generalised or differentiated with the replication logic. Overall, these different bank selection types provide a better picture of Islamic banking and its involvement in the supply chain, different perspective from the conventional counterpart. Access to data is another criterion of this case selection, as proposed by Yin (2018) and others such as Merriam and Tisdell (2016).

Supply Chain Operations Reference (SCOR) Model in Islamic banking can be studied in more than one way, as already discussed in the introduction. This article focuses on the research question (RQ) how Islamic finance is involved in

the financed assets' supply chains? In this regard, what are the specific functions and related processes of the SCOR model?

SCOR Model has the processes of Plan, Source, Make, Deliver and Return till version 10.0 of this model but included Enable as the new process in versions 11 and 12, as already discussed in the earlier portion. These processes will be discussed with the aligned functions, as mentioned in Table 4, from the perspective of Islamic finance. In other words, this article is not focusing on the SCOR model of the Islamic banks' product-making and delivery process. Still, this article discovers Islamic finance's involvement in the supply chain of the financed asset.

**Table 4.2: Functions and related processes in the SCOR model**

Functions (Hugos, 2018a; Quang et al., 2016, p. 446)	Related SCOR Model process
	Plan: Client (Initial Discussions, Agreements, Process flows to do the transactions)
Purchasing	Source
Production	Make
Sales	Deliver
	Return
	Enable: (Disbursement & Repayments)

This article will initiate the findings and discussion with the purchasing function aligned with the SCOR model's sourcing process, so rather than the traditional sequence of SCOR model processes here, purchasing and sourcing will be debated first. Since the Planning and Enabling processes are not the main processes, they are supportive processes to the main processes which will be discussed later.

#### **4.2 Purchasing and sourcing of Financed Asset and Islamic Bank.**

In this study, Islamic banks differentiated from conventional counterparts mainly by the purchasing and selling of financed assets. These two functions are more aligned with the SCOR model's Source and Deliver processes. Following are the purchasing and sourcing-related questions step by step and their answers from the participants.

##### **4.2.1 Islamic banks and purchasing of the financed assets.**

To answer the question "In which Islamic finance modes, do Islamic banks have to purchase the financed assets?" and answer the coming questions, there is a need to understand the overall Islamic banking model as pointed out and well described by the participant from Islamic Bank with Conventional banking – International (IBWCB-Int.) with the following words:

*... first of all, we have to understand the modes (of) financing which are used in Islamic banking. So, there are three categories, or you also can say there are four categories in which Islamic banks use these modes of financing that is partnership-based, trade-based, rent-based, and service-based. (IBWCB-Int., Manager Shariah Audit)*

After describing the financing types in Islamic banks, the participants' responses can be divided into three categories. The same participant who provided the above description emphasised that Islamic banks have to purchase the financed assets in Trade-based modes. In contrast to this response, most of the other participants opined that Islamic banks have to purchase the financed asset in almost all finance modes different than Running Musharakah. In this regard, verbatims are as follows:

*Almost all of these products, except for Running Musharakah, are involved. In the first stage that the bank purchases the asset before (it) is financed. (FFIB-PB, Manager Product Department)*

*IB have to purchase inventory in sale-based modes (Murabaha, Musawamah, Tawarruq/Bai Muajjal, Istisna, Salam and Tijarah) as well as in Lease based modes (Ijarah and Diminishing Musharakah) in order to establish its ownership and possession first before selling or leasing it further to its customers. (IBWCB-PBI, Unit Head Shariah Compliance Department)*

Like the above Islamic banks' respondents, the International Ful-Fladege Islamic bank respondent also opined that Islamic banks have to purchase the financed asset in all transactions or modes of financing, except for the Running Musharakah where an Islamic bank invests and gets ownership in the client's business rather than purchasing the specific (tangible) asset. So, it can be concluded that Islamic banks purchase the financed asset in almost all financing modes, so the next question raised is that when Islamic banks purchase the financed asset, how do Islamic banks purchase and source these assets? When an individual or firm buys an investment in everyday life, there is a need to source this asset. So, the coming question was asked to the participants.

#### **4.2.2 Islamic banks and purchasing and sourcing of the financed assets.**

Participants from different Islamic banks responded that Islamic banks purchase and source the financed assets through their clients by making them agent purchases in some funding modes such as Murabaha (Definition is part of Appendix).

...in fact, Islamic banks use their client as an agent to purchase finance assets. (IBWCB-Int., Manager Shariah Audit)

*In almost 100% of sale-based transactions (Murabaha and Musawamah), the customer is appointed as an agent to procure the subject matter since customer is the ultimate beneficiary and knows what quality and specification is actually required; plus, this agency is usually non-remunerative, thus reduces the financing cost.*  
(IBWCB-PB, Unit Head SCD)

... the way Islamic banks purchase or source these assets is normally by appointing our clients as agents. (FFIB-PB, Manager PD)

Not in all transactions, Islamic banks appoint the client as an agent to purchase. However, in some transactions, Islamic banks purchase the financed asset directly, as pointed out by the participant from IBWCB-PBI. He differentiated the business and consumer clients-related assets in the following way:

*... For Ijarah and DM of corporate, commercial and SME customers, the bank appoints the customer as its agent to procure assets from supplier / third party. But in consumer car Ijarah or DM, usually the bank procures assets directly from manufacturers as it doesn't involve any expertise, and all units are of similar quality.*

Not in every Islamic Finance transaction do Islamic banks purchase asset from the supplier (directly or by the agent as above). In some transaction types, Islamic bank purchases asset from clients.

*In Salam, Istisna and Tijarah, the bank purchases the goods directly from customers... (IBWCB-PBI, Unit Head SCD)*

Overall, the answer to this question is that Islamic banks purchase and source the financed asset primarily via the client but they purchase directly from the supplier in some transactions. This question was one of the critical questions because it differentiates Islamic and conventional banking theoretically. However, at the same time, this point is less or misunderstood by outsiders and potential Islamic banking and finance system stakeholders. Figure 2 summarises Purchasing and Sourcing process of the SCOR Model and Financed assets in the Islamic Banking System.

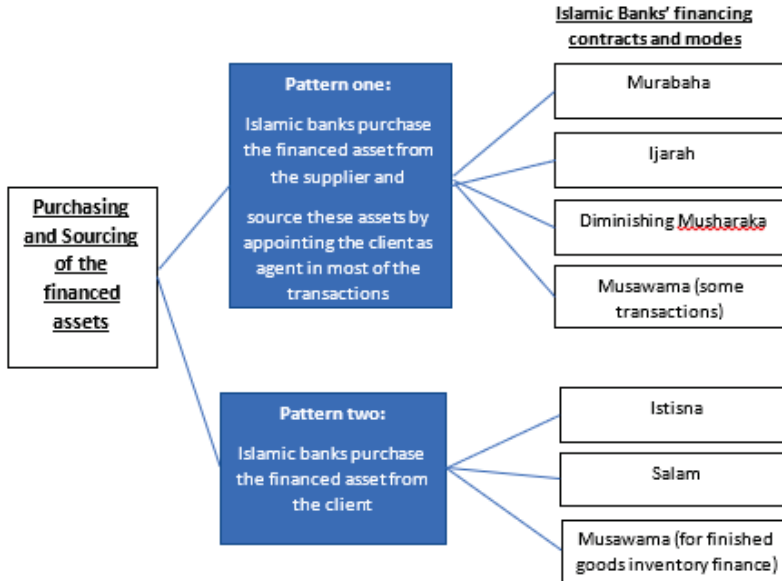


Figure 4.1: Purchasing and Sourcing (Process of SCOR Model) and Financed Asset in the Islamic Banking System

#### 4.3 Production (making) of Financed Asset and Islamic Bank

The next component from the SCOR Model is the Make process which is aligned with the production function. However, Islamic banks are not directly involved in producing or making process as responded by most of the participants. Islamic banks are not directly involved in producing and making financed goods processes; they provided three categories of reasons. The Unit Head from the International full-fledged Islamic bank differentiates Islamic banks' trading involvement and production involvement.

*... from Shariah's presumptive, first of all, we are not required to actually participate in any sort of production in order to be eligible for legitimate business.*

Along with the uncompulsory requirement of Shariah to involve in production activity, there are regulatory barriers, as opined by almost all respondents. The unit head of the Shariah Compliance Department in Pakistan based Islamic bank with conventional banking says that;

*They are not mandated by the regulator to be directly involved in the manufacturing process. They have to remain a financial intermediary.*

Not only the above two reasons but there are also operational reasons as mentioned by the manager Shariah Audit at International Islamic bank with conventional banking by the following words.

*There do not have expert person, no expert person involved (in) these kind of business. They have expertise in banking sector, and these are business sectors in which we are not involve directly so they do not have a target involving production.*

As mentioned above wordings, Islamic banks are not directly involved in the production and making process of financed goods. However, the different types of Islamic banks are involved indirectly in the production process, as explained by verbatims.

*In Running Musharakah, we are indirectly involved. Similarly, in Istisna, we are indirectly involved (Unit Head, Asset Products, PD, FFIB-Int.)*

*Islamic banks are not directly involved in any production activity; they usually appoint customers to manufacture the goods, like in the case of Istisna and Salam. (Unit Head SCD, IBWCB PBI)*

Interestingly, the initial opinion of the manager product department in a Pakistan-based full-fledged Islamic bank was that the Islamic banks are involved in the production and making the process of financed assets, however, later, when the interviewer probed and clarified the meaning of direct involvement, the interviewee responded that:

*... Well, that is beyond their scope, I believe that is beyond their scope, and even if they would want to, I believe there's some banking regulations that would not allow the bank to produce something while remaining in the ambit of banking.*

At the same time, it can be concluded that currently, Islamic banks are trading companies and banking companies also because of Sharia requirements and regulations. However, these are not manufacturing companies and Islamic banking because it is not a Shariah requirement.

#### **4.4 Sales and Delivery of Financed Asset and Islamic Bank**

Sale and delivery are the next components of the SCOR model and related functions. Along with Purchasing and sourcing, this component very clearly differentiates Islamic banking from its conventional counterpart. It is the second part of the trade, and trade cannot be completed without selling the purchased asset, as the manager product department FFIB-PB.



*Well, obviously, if you think of it, you know when you use the word trade, it involves both aspects, and the trade is only completed when a purchased thing is being sold.*

#### **4.4.1 Islamic Banks and selling of the financed asset.**

Different Islamic banks' participants explained this point regarding different finance modes, and almost all of them were very similar in concepts. The wordings of Unit head SCD at IBWCB-PBI represents all of them in a very connected way.

*It's a basic requirement that an Islamic bank delivers the asset/inventory to its customer either physically or constructively for charging any rent or profit. In Murabaha and Musawamah, Islamic bank has to sell the financed asset/inventory to customer for booking a profit. In Istisna, Salam and Tijarah, Islamic bank has to sell the financed asset/inventory in the market to book a profit. While in rent-based mode (Ijarah), since Islamic banks usually recover their principal/investment in their monthly instalments, therefore, they have to sell these assets at maturity of lease tenor to transfer the ownership to customers.*

#### **4.4.2 The mechanism of selling and Delivery of the financed assets?**

The sale and delivery process are being done in Islamic banking in two ways: The first is the Sale and Delivery of the financed asset to the client in some modes such as Murabaha.

*If we talk about Murabahah, so (in) Murabaha Islamic banks used to sell the asset to the client. (Manager Shariah Audit, IBWCB-Int.)*

The second way is the Sale and Delivery of the financed asset to the third-party customer. For instance, in Istisna, Salam, the Islamic bank sells the financed asset or inventory in the market to book a profit. In this way, the Islamic bank appoints the same client; it sells the financed assets to third parties. The manager Product department in FFIB-PB describes these ways of sale and delivery and provides a principle.

*... what I've seen in the different banking products, unless something is being sold by the bank directly to its client, the bank normally would appoint a client as its agent to sell it in the market. So then, if you use this principle, you're going to see all kinds of examples.*

In conclusion, figure 3 summarises the financed assets' sale and delivery process regarding different Islamic finance transaction types.

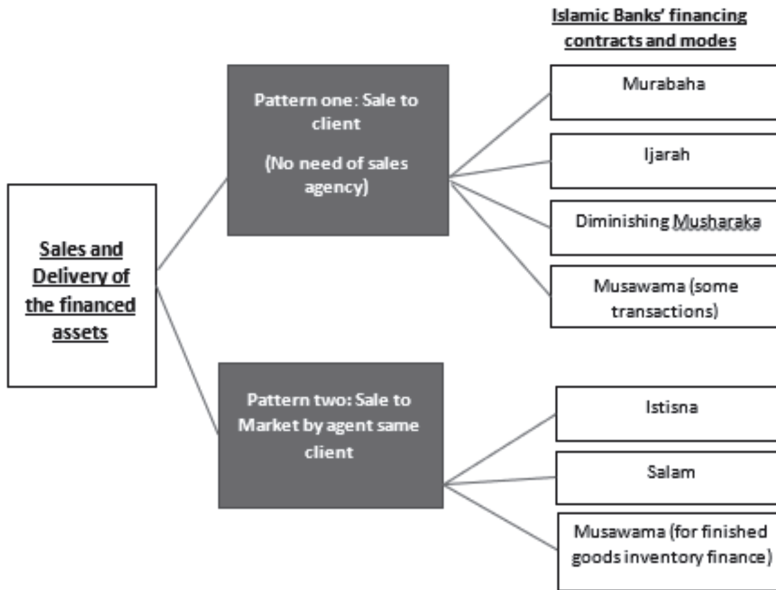


Figure 4.2: Sale and Delivery (Process of SCOR Model) and Financed Asset in the Islamic Banking System

#### 4.5 Return of Financed Asset and Islamic Bank

The return process in the SCOR model is reverse flow. In Islamic banking, return is rare or ignorable because most purchasing and sourcing Islamic banks appoint the client as the agent to purchase and source their favourite suppliers.

*... customer itself procures the financed asset as an agent and is responsible to check the specifications at the time of delivery. (Unit Head SCD, IBWCB-PBI)*

If supplier terms allow, the return is possible. It is pointed out by different Islamic banks, such as the Manager Shariah Audit at IBWCB-International.

*Yes, if suppliers have a term to return so, there will be a possibility.*

There is a possibility of returning the financed asset in case of default, as mentioned by the unit head Shariah Compliance Department at a Pakistan-based Islamic bank with conventional banking.

*For default cases, if the financed assets are under a pledge or lien of Islamic banks, then they file a suit for its possession and liquidation.*

*There is a specialised litigation department and recovery department to perform this task.*

So, these are some different situations for the financed assets return under the Islamic banking system.

#### **4.6 Plan and Enable as SCOR Model's Processes and Islamic Banks' Financing**

Plan and Enable processes of the SCOR model supports the main processes of this model. These processes also exist in the Islamic banking financing system in the form of Master Agreements and Process flows or similar documents which mainly plan the bank and client transaction details and enable the traction accordingly described by Manager Shariah Audit IBWCB- International.

*There is a very complete procedure for it. Islamic customer comes to an Islamic bank, and there is a process flow which is called process flow is developed for customer case to case. So (the) whole business cycle, understandable between Islam bank and the customer. And everything is there in the planning stage. They are using the Master Agreement. For example, in the Murabahah case, they're using Master Murabaha, Istisna and Musawama; they are using Master Istisna (and) Master Musawama, in which the whole procedure is defined prior to execute any transaction, but there is a very in-depth plan stages they are conducting the transaction.*

*Unit head SCD at IBWCB-PBI also provided the information in this regard.*

*Islamic banks have Standard Operating Procedures, Service Level Agreements and Product programs in place to enable and execute these functions smoothly. Trainings are provided to all staff at regular intervals.*

For the execution or enablement, the Shariah Compliance Department's role is unignorable as the regulator's Shariah Governance Framework.

*For example, Shariah compliance department person(s), they are also go to the, for a visit and to see that either the Islamic rules are followed or not, for example, are goods which are being financed, either these are available, they are exist. (Manager Shariah Audit IBWCB-Int.)*

In short, the SCOR model of the financed asset in Islamic banking is very different from its conventional counterpart in all aspects of the SCOR model.

#### **5. Discussion and Conclusion**

This section discusses the results and findings especially considering the study's purpose and questions. This article confirmed that Muslims can do their financial

transactions without involving in Riba (interest) as they have done in the past many centuries (Ghazi, 2010). Similarly, it extended the findings of Ahmed et al., (2022) by providing industry data about the Islamic finance involvement in the supply chain of the financed assets. Typically Islamic finance modes are categorised based on contract nature (Ahmed et al., 2021) but in this study, the Islamic finance modes are grouped into three categories based on the supply chain position. In the first category, Islamic banks purchase and source the financed asset from the supplier directly in some consumer cases such as car finance or by the same client as most of the business clients financing. In this category, there is DM (primarily for home and similar assets finance), Ijarah (primarily for equipment and sometimes auto finance), Musawama type 1 (for Durables or similar asset finance) and Murabahah (primarily for Inventory purchase finance).

In the second category, Islamic banks purchase the financed assets from the client (Finance seeker) and mostly appoint the same client to sell the financed asset into the market. In this category, there are Musawamah type 2 (for Finished Goods Inventory finance), Istisna (for Manufacturable future inventory finance) and Salam (for Homogeneous future assets finance). In last, there is a Musharakah category which is a business partnership. In that situation, the Islamic bank becomes the client's partner in end-to-end financed transactions or business segments. Figure 5.1 graphically represents the above discussion as the Islamic bank's financing model based on the Supply Chain Operations Reference (SCOR) Model of the Financed Assets.

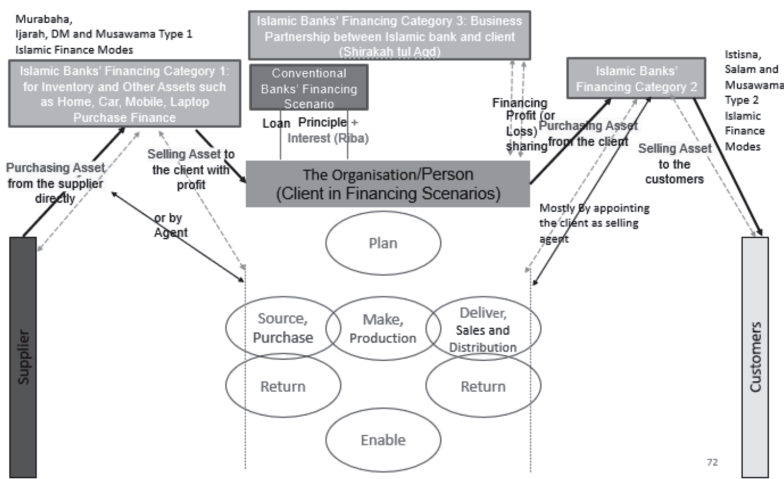


Figure 5.1: Islamic Bank's Financing Model Based on SCOR Model of the Financed Assets

The purpose of the study was to elaborate on Islamic banks' financing system through the SCOR Model's help. Furthermore, in alignment with this purpose, there are research questions on how is Islamic finance involved in the supply chain of financed assets and the specific functions and related processes of the SCOR model? To start the answers with the last part of the question, purchase and sales functions align with the SCOR model's Source and Delivery processes. Islamic finance is involved in financed assets' supply chain due to Shariah requirements as Table 5 describes with different types of financed assets (as examples) row by row.

**Table 5.1: Financed Assets, Islamic Finance Modes, Functions and Processes related to the Supply Chain Operations Reference Model**

Financed Assets	Islamic Finance Modes (IFM) or Structures	Conversion of IF mode to Supply Chain Functions and Process	Related Process from the SCOR Model
1. Home (Or similar long-term) assets	Diminishing Musharakah (DM)	Islamic Banks Purchase, Lease then sell the asset step by step	* Purchase is related to the Source process of the SCOR model.
2. Car (or auto or similar) assets	DM or Ijarah or Musharakah cum Ijarah	Islamic Banks Purchase, Lease, and then sell the asset step by step	* Sales is related to Deliver process of the SCOR model.
3. Durable or Similar assets	Musawama Type 1	Islamic Banks Purchase the asset from the supplier primarily via an agent and then sell it to the client	* Due to banking system boundaries, Islamic banks are not directly involved in the SCOR model's Make (Production) process.
4. Inventory (or similar asset') Purchase	Murabahah Musawama Type 1		
5. Finished Goods Inventory (FGI)	Musawamah Type 2	Islamic Banks Purchase the asset from the client and then sell it to third parties, mainly via an agent	* Plan, Return, and newly added Enable processes are supportive processes, so these are implemented as per need.
6. Future Deliverable inventory	Salam Istisna		
7. Overall business or transaction finance	Musharakah	Islamic banks Invest in the business or transaction	

Source; Collected data in the form of interviews, official webpages, and documents.

This article found that Islamic banks are more like trading companies because they purchase and sell financed assets almost in all modes of finance (except Musharakah). However, at the same time, they use their clients as an agent for sourcing and delivering in some Modes of finances because the current financial intermediation role is prominent.

### 5.1 Future Research

For future research, this article suggests studies in different countries with some questions such as

- What are the similarities and dissimilarities between Islamic banking and ordinary trading firm's supply chain with the aspect of the financed asset?
- What are the similarities and dissimilarities between Islamic banking and conventional banking regarding the financed assets' supply chain?
- As Ahmed and Ismail (2021b), found that Islamic banking lacks in its own theories, therefore; in future, the theory building or development struggles are also recommended with the help of different methods such as theory building by case study research method (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Halkias & Neubert, 2020; Steenhuis et al., 2006), Grounded theory research method (Vollstedt & Rezat, 2019) or by combinations (Adwan, 2017; Fernández, 2005; Mfinanga et al., 2019) with the help of Islamic finance and supply chain combined studies like this study.

Conclusion

The earlier stage of the research found the research gap that although Islamic finance and supply chain are considered two separate fields of study; interestingly, these have some less-discovered combined dimensions. For bridging the gap, this study provided details and concluded that the SCOR model can elaborate Islamic banks' financing which was the objective of this study. This study demonstrated Islamic banks' financing system with the help of the components of the SCOR model, i.e., Plan, source, make, deliver, return, and enable and their related functions such as purchasing as the aligned function of the sourcing. The study concluded that Islamic banks are more like trading companies because, in almost all modes of finance, they purchase and sell the financed assets either directly or by the same clients as the agents.

Since this study focused on a country's, i.e., Pakistani Islamic banks with qualitative research methodology which mostly have in-depth but a smaller number of cases and participant and data sources' so, these can be considered as the limitations of the study and for the future, the researchers can use data from other countries with different methodologies.

As a knowledge implication, this study extends the less studied area of combined studies of Islamic finance and the supply chain of the financed assets. It may support for better understanding of Islamic finance so that different stakeholders and potential stakeholders can get benefit from this. For example, academicians can better analyse current Islamic banking and generate new ideas for future development, Islamic banking managers, marketers and teachers/trainers can better communicate the Islamic banking financing system to current and potential clients and other stakeholders, and policymakers including lawmakers can better fulfil their duties by making policies, laws and

regulations. Similarly, a better understanding of Islamic banks' systems can be beneficial for many segments of the Muslim societies by reducing the voluntary financial exclusions which are very high among Muslims (Shaikh, 2022).

## References

- Adwan, A. S. Al. (2017). Case study and Grounded theory: a happy marriage? An exemplary application from healthcare informatics adoption research. *Article in International Journal of Electronic Healthcare*, 9(4). <https://doi.org/10.1504/IJEH.2017.10006684>
- Ahmed, Z., & Ismail, M. A. (2021a). Understanding of Islamic Banks' Financing among Different Groups of People. *5th International Conference on Islamic Banking & Finance (ICIBF) - Abstract Book*.
- Ahmed, Z., & Ismail, M. A. (2021b). Exploring Contemporary Islamic Finance Theories for Enhancing Research and Development in Islamic Banking. *Extended Abstract Book: International Conference on Islamic Economics and Finance (ICISEF)*, 24–30. [https://4eff84b5-68c1-4a77-89ea-d14c82389234.filesusr.com/ugd/0eec5e\\_16ee7509a8f443159c2fb5b1877b2d92.pdf](https://4eff84b5-68c1-4a77-89ea-d14c82389234.filesusr.com/ugd/0eec5e_16ee7509a8f443159c2fb5b1877b2d92.pdf)
- Ahmed, Z., Ismail, M. A., Osman, L. H., & Senik, Z. C. (2021). EXPLORING OWNERSHIP SUPPLY CHAIN FLOWS IN DIFFERENT ISLAMIC FINANCE. *International Management & Accounting Conference (IMAC) 10 Revisiting Business and Accounting Perspective in New Era, October*, 217–218.
- Ahmed, Z., Ismail, M. A., Osman, L. H., & Senik, Z. C. (2022). Islamic Finance Involvement in Supply Chain of Financed Assets A Library Research and Systematic Literature Review. *Turkish Journal of Islamic Economics (TUJISE)*, 9(2), 49–71. <https://doi.org/10.26414/A2411>
- Ahmed, Z., Ismail, M. A., Osman, L. H., & Senik, Z. C. (2023). Supply chain flows of the assets in normal, conventional, and Islamic banking financing scenarios: a new perspective. *International Journal of Business Performance and Supply Chain Modelling (IJBPSM)*, 14(3), 1–15. <https://doi.org/10.1504/IJBPSM.2023.10052658>
- Aliero, I. H., & Achida, M. B. (2016). Mobilizing informal sector operators to the Islamic banking products in Nigeria. *Journal of Islamic Banking and Finance*, 4(2), 6–14. <https://doi.org/10.15640/jibf.v4n2a2>
- Arfan, A., & Arfan, I. A. (2021). A strategy for strengthening public perception toward sharia banking. *Banks and Bank Systems*, 16(2), 170–181. [https://doi.org/10.21511/bbs.16\(2\).2021.16](https://doi.org/10.21511/bbs.16(2).2021.16)

- Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches* (V. Knight, J. Young, K. Koscielak, B. Bauhaus, M. Markanich, & A. Hutchinson (eds.); 4th ed.). SAGE Publications, Inc.
- Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *The Academy of Management Review*, 14(4), 532–550.
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory Building from Cases: Opportunities and Challenges. *Academy of Management Journal*, 50(1), 25–32.
- Ethica. (2017). *Handbook of Islamic Finance* (2017th ed.). Ethica Institute of Islamic Finance. www.EthicaInstitute.com
- Fernández, W. D. (2005). The Grounded theory method and case study data in IS research: issues and design. In *Information Systems Foundations: Constructing and Criticising* (pp. 43–59). [https://scholar.google.com/scholar?hl=en&as\\_sdt=0%2C5&sciodt=0%2C5&cite\\_s=7957182574334786401&scipsc=&q=%225.+The+grounded+theory+method+and+case+study+data+in+IS+research%3A+issues+and+design%22&btnG=](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&sciodt=0%2C5&cite_s=7957182574334786401&scipsc=&q=%225.+The+grounded+theory+method+and+case+study+data+in+IS+research%3A+issues+and+design%22&btnG=)
- Ghazi, M. A. (2010). *Muhazirat E Maeeshat O Tijarat*. AL Faisal Nashiran.
- Gundogdu, A. S. (2010). Islamic structured trade finance: a case of cotton production in West Africa. *International Journal of Islamic and Middle Eastern Finance and Management*, 3(1), 22–35. <https://doi.org/10.1108/mf.2008.00934jaa.001>
- Gundogdu, A. S. (2020). Exploring novel Islamic monetary system: Islamic way of money creation from supply chain to international trade. *Journal of Islamic Accounting and Business Research*, 11(2), 440–456. <https://doi.org/10.1108/JIABR-12-2017-0180>
- Halkias, D., & Neubert, M. (2020). *Extension of Theory in Leadership and Management Studies Using the Multiple-Case Study Design \**.
- Ibrahim Musa, G., Bahari, Z., & Hamiza Abdul Aziz, A. (2020). The Impact of Islamic Capital Market on Malaysian Real Economy. *Jurnal Ekonomi Malaysia*, 54(2). <https://doi.org/10.17576/JEM-2020-5402-08>
- Islamic Banking Department - State Bank of Pakistan. (2020). *Islamic banking bulletin: July - September*.
- Islamic Financial Services Board. (2019). *Islamic financial services industry stability report 2019*. www.ifs.org



- Khan, Z. A., Azam, M., Syed, &, & Agha, E. (2019). Security Deposit Issues in Ijārah Financing: Evidence from the Islamic Banks of Pakistan. *Turkish Journal of Islamic Economics*, 6(2), 44–61. <https://doi.org/10.26414/A059>
- Merriam, S. B. (2016). The methodology section of a qualitative research study. In *Qualitative Research* (4th ed., pp. 293–299).
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative Research (A Guide to Design and Implementation)* (Fourth). John Wiley & Sons, Inc.
- Mfinanga, F. A., Mrosso, R. M., & Bishibura, S. (2019). Comparing Case Study and Grounded Theory as Qualitative Research Approaches. *International Journal of Latest Research in Humanities and Social Science (IJLRHSS)*.
- Moh'd, I. S. (2018). *The prospects of Muzara'ah financing and supply chain model in Zanzibar clove industry*.
- Moh'd, I. S., Omar Mohammed, M., & Saiti, B. (2017). The problems facing agricultural sector in Zanzibar and the prospects of Waqf-Muzar'ah-supply chain model: The case of clove industry. *Humanomics*, 33(2), 189–210. <https://doi.org/10.1108/H-02-2017-0033>
- Oladokun, N. O., Larbani, M., & Mohammed, M. O. (2015). The problems facing the agricultural sector in Nigeria and the prospect of Muzara'ah and supply chain model. *Humanomics*, 31(1), 18–36. <https://doi.org/10.1108/H-11-2012-0022>
- Omar, H. H., Yusoff, M. E., Habiba Omar, A. H., Yusoff, M. E., Omar, H. H., & Yusoff BUSINESS PERSPECTIVES, M. E. (2019). Central bank impact on practicing Mudarabah financing in Islamic banks: the case of Tanzania. *Banks and Bank Systems*, 14(1), 81–93. [https://doi.org/10.21511/bbs.14\(1\).2019.08](https://doi.org/10.21511/bbs.14(1).2019.08)
- Razak, L. A., & Saupi, M. N. (2017). The concept and application of dam an al-milkiyyah (ownership risk) Islamic law of contract perspective. *ISRA International Journal of Islamic Finance*, 9(2), 148–163. <https://doi.org/10.1108/IJIF-06-2017-0002>
- Shaikh, S. A. (2022). Some observations on contemporary financial proposals. *International Journal of Ethics and Systems*. <https://doi.org/10.1108/IJOES-03-2021-0067>
- State Bank of Pakistan, Department for International Development, & Edbiz Consulting. (2014). *Knowledge, Attitude and Practices of Islamic Banking in Pakistan (KAP Study)*. <http://www.sbp.org.pk/publications/KAPStudy.pdf>

- Steenhuis, J., De Bruijn, E. J., Steenhuis, H. J., & Bruijn, E. J. de. (2006). *Building theories from case study research: the progressive case study*. <https://research.utwente.nl/en/publications/building-theories-from-case-study-research-the-progressive-case-s>
- Usmani, M. T. (1998). *An introduction to Islamic finance*. Arham Shamsi. [https://books.google.com.my/books/about/An\\_Introduction\\_to\\_Islamic\\_Finance.html?id=0aDStX-qUAgC&redir\\_esc=y](https://books.google.com.my/books/about/An_Introduction_to_Islamic_Finance.html?id=0aDStX-qUAgC&redir_esc=y)
- Vollstedt, M., & Rezat, S. (2019). An Introduction to Grounded Theory with a Special Focus on Axial Coding and the Coding Paradigm. In *Compendium for Early Career Researchers in Mathematics Education*. [https://doi.org/10.1007/978-3-030-15636-7\\_4](https://doi.org/10.1007/978-3-030-15636-7_4)
- Wahid, N. A., & Furqani, H. (2013). Worldwide Development of Islamic Finance: Trends, Prospects and Challenges. *Journal of Islamic Business and Management*, 3(1), 71–90.
- Yin, R. K. (2018). *Case study research and applications (Design and methods) (Sixth)*. Sage Publications Ltd. <https://doi.org/10.1177/109634809702100108>

**Appendix A: Further Definitions and Full Forms of Diverse fields’ Abbreviations**

Abbreviations / terms	Field	Full-Form and short descriptions
SCOR Model	Supply Chain Famous model	Supply Chain Operations Reference Model: plan, source, make, deliver, and return processes were part of version 10 of this model. In versions 11 and 12, enable process is also included in the model.
IFM	Islamic banking	Islamic Finance Mode: Combination of Islamic Finance prominent and supportive concepts which are being used in contemporary Islamic baking
IB		Islamic Banking
SCD	Departments in Islamic Banks	Shariah Compliance Department
PD		Product Development or Equivalent Department in Islamic Bank