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Islamic banks’ decomposed financing and industrial output growth in Pakistan

Sadia Yasmin * · Mohammad Ayaz

Abstract  Finance is considered as “the lifeblood of an economy” and imperative to a country’s growth and stability. However, this perception has been called into two propositions, "More finance more growth "and "Does too much finance harm economic growth?" Existing literature considered only a single indicator i.e. total financing, assuming all financing has the same effect on growth. Furthermore, these studies also overlooked the nonlinear dynamics of Islamic decomposed financing and sectoral growth. As the composition of every economic sector is different, therefore financing can impact differently. This gap is covered in this study by decomposing Islamic financing into Islamic producer financing and Islamic consumer financing with special emphasis on industrial output growth in order to revisit the relationship in Pakistan. Based upon quantitative time series analysis over the period of 2010 Q1 to 2020 Q4, this study has employed autoregressive distributive lag (ARDL) with quadratic specifications. Moreover, the estimated coefficients are plotted to visualize the nonlinear impact of Islamic financing. This study found an inverted u-shape relationship between Islamic bank decomposed financing and industrial growth in the long run but this relationship is insignificant in the short run because the share of Islamic financing is very low compared to its conventional counterpart. Empirical findings indicate a threshold effect where the level of financial development positively contributes to the growth only up to a certain level of financing, and after surpassing this can harm the growth. This study enriches the discussion on Islamic decomposed financing and the threshold effect. Policymakers may revisit the Islamic finance development policies to liberalize the Islamic financial system as Islamic finance industry is also linked with KIBOR, so the vanishing effect reflects near the threshold point of financing.
Keywords Islamic Producer Finance, Islamic Consumer Finance, Output Growth, Threshold effects

1 Introduction

Economic growth is associated with the ability of a country to produce goods and services more than the previous year. The number of economic indicators including Human Development Index (HDI), Total Factor Productivity (TFP), and financial sector development (FD) etc, can be used to measure the economic growth and development in a country. Financial sector development is a key to economic development and transformation (Arshed et al 2020; Bertocco 2008; Hassan 2011). The extant literature on the relationship between financial sector development and economic growth is available in accordance with the works of Schumpeter 1911 followed by Gurley and Shaw (1960), who established financial intermediation theory on the basis of agency theory and asymmetry information theory. This theory indicates that finance plays an imperative role in any business and economic activity, and hence in economic growth. It improves the capacity and profit of the business. A key to accelerating output growth is the availability of credit facilities (Bozkurt et al 2020). Therefore, we can say that credit is a vital source to enhance the growth in any economy. Countries with well-developed and well functional financial institutes create domestic credit expansion instead of dependence on external financing sources like those with underdeveloped financial system (Jedidia et al 2014; Yasmin et al 2022).

GDP measures all the value added produced in a country within the borders, either by its own firm or not, in a specific time usually one year (Mankiw 2020). Agriculture is classified as the primary sector, followed by the industrial sector, and finally by the services. Annual revenue of agriculture accounts for 23.13% of the GDP in FY 2020 Economic Survey of Pakistan (2021). In Pakistan, small and poor producers are reluctant to take financing from credit institutions due to certain conditions like collateral, guarantees, complicated documentation, etc (Chandio et al 2016). If these problems were removed, it would help to enhance productivity (Iftikhar and Mahmood 2017). Pakistan has semi-industrialized
economy that comprehends textiles, food processing, mining etc, and agriculture provides the raw material to industry (Ahad et al 2019).

The industrial sector contributes around 17.72% in GDP in FY2020. Role of services sector is well recognized in the amplification of economic growth by means of the emergence of tourism, transportation, education, and infrastructure development, financial sector development is categorically prominent. Services sector revealed remarkable growth performance as its share in GDP is 59.15 percent in FY2020, which is more than half of the country’s total output (Economic Survey of Pakistan). Economic growth can be attained by simultaneously enhancing all sectors’ productivity (Yasmin et al 2022). Financial system directs the available resources toward productive use and distributes them among the economic sectors (Arshed et al 2020), promoting balanced growth in the agricultural, industrial, and service sectors.

Economic development of an economy is closely associated with the development of its financial system particularly banking sector (Klapper and Zaidi 2005). When comparing the financing mechanisms of Islamic and conventional banks, every financing facility provided by conventional banks, whether to consumers or producers, is a loan bearing interest facility. The conventional financing system is not productivity oriented and there is no risk on lender. Interest is considered as cost of capital, and when cost of capital increases, it will add to cost of production and prices will rise automatically (Yasmin et al 2022).

Impact of changes in interest rate on economy can be traced back to the neoclassical growth approach; according to neoclassical framework negative dependence on interest rate is vital to achieve full employment general equilibrium. Due to an increase in interest rate, people tend to reduce the level of consumption and increase their savings (Fisher 1930), which can negatively affect the economy. Interest is strictly prohibited in Islam "O you who believe! Do not devour riba multiplying it over, and observe your duty to Allah that you may prosper” (3:10).

According to Shariah principles, Islamic banks act as an intermediary between the borrower and the lender, channeling funds from the surplus sector to the deficit. Contributes to financial development through profit and risk sharing, equity financing, and debt financing mechanisms, which leads to increased output in a country (Hall et al 2010). Profit share does not produce inflation in an economy, which is a positive indicator of growth (Ryandono 2009). Wahba Zuhayli, a distinguished scholar of shariah, wrote in his well-known book Al-Fiqh Al-Islami wa- Adillatuh that the main purpose of Islamic banking is not to generate profits merely but to acknowledge the endorsement of societal goals such as socioeconomic development and poverty eradication (Zuhayli et al 2003).

In Pakistan, efforts to convert the conventional banking system to Islamic banking began in the mid 1960s, with practical steps taken in the 1980s. Article 38(f) of Pakistan’s 1973 Constitution states that ”interest must be eliminated from the country as soon as possible.”According to this article, the country’s Islamic banking system began in earnest in the 1980s, and the State Bank of Pakistan has implemented a number of regulatory changes in accordance with the Islamic Ideology Council’s guidance. Some changes were made to the Banking Company Ordinance 1962 in order to facilitate interest-free transactions. In December 1991, the Shari’ah court and the Supreme Court of Pakistan directed

decisions to convert the financial banking system into Shari’ah-based/Islamic banking.

The banking industry was given a time frame to convert their operations to full-fledged Islamic systems. In early 1990s, this effort was challenged in Federal Shari’at Court (FSC) with arguments, and as a result, some of the products were labelled as haram. However, a full fledge Islamic bank was established in 2002 and the country now has 28 Islamic banking institutions operating, including full-fledged Islamic banks, Islamic windows, and standalone branches. Since the last two decades, the share of Islamic banking in the overall banking sector has gradually increased (fig. 2). Islamic banking industry consist of 3,956 branch network, constituted 18.6% share in assets and 19.4% in deposits in the overall banking industry of Pakistan.

SBP targets to increase the share in both assets and deposits of Islamic banking industry up to 30-35 percent of overall banking industry (SBP strategic plan 2021-2025). Financial system development effects on output growth are extensively explored in the literature but with mixed results. Some studies postulate a positive impact of financial sector development on economic growth, but numerous empirical studies claim contradicting evidence. Law of diminishing returns states that, when productivity reaches its optimal level, an additional input beyond this optimal level will result in less efficient productivity (neoclassical economists). Reasons for negative effect is that financing has diminishing returns (exponential cost/ cost of financing increasing due to compounding interest) this is because a typical firm / country could employ other inputs to a certain level after that it might face diseconomies of scale or it might face shortage of the inputs (labor, capital) according to their requirements.

Furthermore, there is increasing cost of capital such as compounding in conventional banking and higher profit share in Islamic banks, when the proportion of financing increases as percent of their assets than firms have to bear. According to the corporate governance theory, if a business takes too much financing, it gets dictated from the creditors who are residing in the board of governors. Hence it creates agency cost where by business tends to serve the creditors rather than the customers (Jensen and Meckling 1976). There are two hypotheses in the literature, one explaining that positive effect “More finance
Islamic Banks’ Decomposed Financing...

more growth form U-shape profile whereas other explaining the negative effect
too much finance form inverted U-shape profile. Haans et al (2016) stated that
if both positive and negative dynamics are working simultaneously in the econ-
omy, then it can legitimize the use of nonlinear model specifically the quadratic
specification. Literature on nonlinear effects is also suggesting the same (Sohail
and Arshed 2022).

Inverted u-shape profile can also be traced from the concept of fixed cost or
economies of scale. It states that too low financing will have more cost than its
gains, which is evident in developing countries like Pakistan where the interest
rates linked to Karachi interbank offered rate (KIBOR) is as high as developed
countries. So, if a firm is willing to obtain financing, then the returns should be
more than the cost of capital which might only be possible if they initiate a big
project (Sohail and Arshed 2022).

Brooks (2019)suggest that time series data partakes normal distribution
therefore, to explore the financegrowth nexus by applying linear modeling tech-
niques are inadequate. Reason of nonlinear relationship might be the rapid
growth in financial sector possibly generates high rents and attract funds that
may be used in other sectors of economy (Bolton et al 2016). Hence, an optimal
allocation of credit resources may avert and accomplish feasible growth rates in
the short run. Rather, arguing that the effects of financial sector development on
growth may be weaker or even impact negatively, if there is unbalanced growth
in the real sector output and the financial sector (Ductor and Grechyna 2015).

Benczúr et al (2019)proved that nonlinear impacts stem because of signifi-
cant structural changes in the financing composition during their study under
investigation. In addition, enchanting different financing mechanisms discretely
or using as a ratio possibly biases the estimated results and lead to inappropriate
conclusions and therefore provides spurious implications. Global financial
crises of 2007-08 have produced an inverted u-shape profile for the finance and
economic growth nexus (Law and Singh 2014), whereas some of the research
studies formed a u-shaped profile in accordance with the proposition “More fi-
nance more growth” (See: Jalil et al (2010) and Hassan 2011). Moreover, beyond
a certain threshold financial expansion might have a negative effect (Cecchetti
and Kharrouti 2012; Arcand et al 2015). Where there is over financing the effect
might be negative, on the other hand, in case of under financing the impact of
output might be shown positive. Progress of Islamic bank financing is mea-
sured in previous studies using a single indicator such as Islamic bank finance,
Islamic banking assets or deposits (Abduh and Azmi Omar 2012; Tabash and
Dhankar 2014; Kalim et al 2016; Mushtaq et al 2018). As the sectoral composi-
tion is different in each and every economy (Asghar 2021), the financing needs
and type would be different as the one financing type does not fit for all (Mis-
man et al 2020). There are several reasons to understand cross sector variation
in producer financing and consumer financing. First, understanding the deter-
minants and consequences of credit composition may have important inferences.

For instance, if producer financing found to have significant impact on growth
than theory should model the nexus between financing and economic growth ac-
cordingly. Secondly, by decomposing bank financing might be helpful to under-
stand that why the impact of financial deepening on growth varies and how much
financing is needed to achieve the maximum level of output in that particular sector. Lastly, finding a different impact of financing decomposition on growth might be important for the researchers and policy makers who explore and investigate to draw the policies for growth maximization (Beck and Demirgüç-Kunt 2008).

1.1 Financing decomposition and its dynamics

Demand and supply are the most fundamental concepts of economics. Demand side financing refers to consumer loans, whereas supply side financing refers to producer financing or business credit (Hung 2009). Islamic producer financing stimulates entrepreneurial activities and thus economic growth by sharing the risk of producers and ensuring social and financial stability. Availability of on time adequate interest free financing helps to improve the socio-economic conditions of borrowers encouraging them to produce at maximum level. Interest free financing reduces the cost of production, which significantly increases the productivity by compelling individuals to participate in the economy (Yasmin et al 2022).

Production helps to spur economic activity, which in turn promotes profit maximisation and, eventually, tends to increase GDP. Islamic producer financing is increasing gradually since 2010 (Fig. 3) as the overall share of Islamic banking is also increasing. Mohd. Yusof and Bahlous (2013) proved that the outcome of Islamic financing is positive on productivity because the shariah based principles impetus to increase managers’ entrepreneurial skills, which help reduce agency costs. The bank facilitates a person to spend more via consumer financing. Bank provides facilities like credit cards, leasing finance, overdraft balances which in turn increase the demand for goods and services (Manzoor and Arshed 2021).

Furthermore, the bank provides discount offers on different brands of consumable goods like clothing, food restaurants, and departmental stores, which, in turn, motivate individuals to spend more money. In Pakistan, consumer or household financing is categorized into four products types which include; credit...
Islamic Banks’ Decomposed Financing...

cards, car financing, house finance and personal loan (SBP prudential regulations for consumer financing). Conventional banks have framed people into expensive mortgage loans (Manzoor and Arshed 2021). Competitiveness is damaging in an economy in general due to the high interest rate spread, particularly in financial sector. Massive profit margins earned on the cost of depositor’s funds, cannot be justified on any grounds (Hassan 2011).

Due to an increase in consumer loans portfolio, prices level and demand of goods and services goes up. Consequently, it creates high inflation problem in any country (Arsene and Guy-Paulin 2013; Yuksel and Canoz 2017. In contrast, under Islamic financing mechanism, consumer obtains financing in interest-free mode. Number of standards and guidelines are issued by IFSB and AAOFI to improve governance, disclosures, and transparency. Islamic banking practices are based on the principles of Shari’ah, whereby debt for consumption purpose is discouraged. They provide a facility by buying an asset for the customer to either sell him on lumpsum future payments or in installments or lease it on a rental basis. Fig.4 shows the increasing trend of ICF in Pakistan. Islamic bank issues consumer finance only for facilitating people to attain support for their survival and progression in their standard of living. Islamic bank is directly or maybe indirectly involved in the purchasing of the consumed asset and also promotes moderation in society.

![Fig. 4: Source: SBP Islamic banking bulletins](image)

Hung (2009)replicates the nonlinear relationships between finance and growth by decomposing bank financing into two categories, and argued that consumption loans are usually considered nonproductive and hamper the growth but if financial sector encourages investment loans, then it would promote output growth in a country. Dar and Akram (2004) explained that the consumption habit of society directs the direction of all economic sectors. And if people are wastefully spending on unproductive thing like fun and frolic. Then the capital for productive mean will become scarce. Hence, when compared to conventional financing systems, Islamic consumer finance acts as a moderator to restrict the consumer’s apparent utility-maximizing behavior (Chapra 1991).

This study is looking to explore the impact of Islamic decomposed financing on industrial output growth in Pakistan. All the sectors of economy are unique in nature and their financing needs are also different therefore each sector needs financing for its particular need to grow. In conventional financial systems, financing modes differ from the Islamic financial system. Borrowers are free to
use their financed amount from one particular sector to another as they have substitutes available, and amount can be used for different alternative purposes where borrower can earn arbitrage. Whereas in case of Islamic financing, these kinds of options or substitutes of products are not available. Islamic banks are investment and asset-based institutions, they invest in specific assets/product for specific sector.

This non-cash-based investment ensures no substitutability and the particular sector will benefit from Islamic financing opportunities. Sectoral composition of every country is different; some are industry oriented some are services oriented, whereas some are agriculture oriented like Pakistan. So, the financial sector transfers the funds to that sector where it is most productive and in demand (Yasmin et al 2022). The purpose of this research is to look into how Islamic decomposed financing might affect industrial output growth in Pakistan, and to identify a threshold level beyond which financing may become more expensive and less productive.

1.2 Research Gap and Objective

Financial constraints like high interest rates, collateral, information asymmetries, agency problems, and transaction costs significantly considered as a barrier for any income generating activity, especially for developing countries and must be removed to realize economic growth. Islamic financing is more effective at accelerating output growth because it has the distinct advantage of asset-backed financing and non-substitutable products (Rabaa and Younes 2016; Tabash and Dhankar 2014) because there is real economic activity took place (Kassim 2016). The existing literature (Kalim et al 2016; Kassim 2016; Tabash and Anagreh 2017) considered only a single indicator of financing i.e. total financing to explored the causality of conventional and Islamic financing. By treating all forms of finance as having the same impact on growth, which is an over restrictive assumption. These studies effectively assume that financing is a homogenous factor that affects economic growth in the same way regardless of the specific type of financing being used.

Furthermore, literature also overlooked the nonlinear dynamics of financing. Most empirical researches postulates the linear relationship between the financial sector and economic growth, ignoring the law of diminishing returns and the productivity impact of financing (Jobarteh and Ergec 2017; Teklí et al 2018). Lastly assessing the effect of financing on growth is also an oversimplification of Islamic financing which possesses unique products designed for various purposes. Hung 2009 in their study reveals that if financial development facilitates investment loans, it tends to promote output growth, whereas household loans are usually considered nonproductive, which tend to hamper economic growth. Beck et al (2012) also replicates the nonlinear relationships among finance and growth by decomposing bank financing into two categories. Moreover, the dynamics of supply and demand financing differ in the expenditure multiplier cycle (one’s expense is the other’s income).
Islamic Banks’ Decomposed Financing...

Where one is advocated by classical school of thought “demand creates its own supply” and other is advocated by Keynesians “supply creates its own demand” so the results would be different. The impact of Islamic decomposed financing on industrial output may be worth investigating in order to address financial constraints that must be prioritised in order to achieve maximum industrial growth. The main objective of the study is to explore the association between Islamic decomposed financing and industrial output growth by analysing its quadratic dynamics. This could indicate the impact of both types of Islamic financing on output growth, which could vary depending on development level, and provide guidance on how Islamic financial systems can promote economic development. We are testing a nonlinear model of Islamic decomposed financing to identify the specific types of financing that have the greatest impact on economic growth in Pakistan. Moreover, calculating a threshold point, may help to determine how much financing is required to significantly enhance balanced growth in Pakistan.

2 Literature review

Financials development and economic growth nexus always remained thought-provoking for the researchers and academicians. Analysis of this relationship is interesting to investigate for the developing countries like Pakistan where dual banking system operates. Over the last few decades, researchers and economists appear to have reached an agreement that there is a significant positive relationship between financial sector development and economic growth. There are many studies channelized the growth from financing to output (Gerdin 2002; Beck et al 2012; Kaleem 2008; Uddin et al 2013; Pradhan et al 2017; Swamy and Dharani 2019; Rahman et al 2020; Arshed et al 2020; Ustarz and Fanta 2021). These studies typically use econometric models to estimate the impact of different types of financing on economic growth, and to explore the channels through which financing affects output.

A number of studies have shown that innovation and productivity lead countries to long-term growth (Hall et al 2010). Developing countries have raised efficiency in their financial markets since 1980s (Arshed et al 2020). Hassan (2011) shows positive relationship among finance and growth in developing countries. Bojanic (2012) using time series data also found positive impact of financial development on economic growth. Ehikioya and Mohammed (2013) investigate the effect of commercial financing on sectoral output growth from 1986 to 2012 postulate that bank financing has long run relationship with output growth in Nigerian economy (Kocturk et al 2013).

Using time series data Jedidia et al (2014) also found positive impact of financial development on economic growth. Chazi et al (2020) empirically examine the effect of Islamic financing on industrial growth Using data for 28 industries considered from 14 countries where dual banking system operates. Results demonstrate that Islamic financing has significant positive impact on industrial growth which depend on external finance. They suggest that absolute size of Islamic banking infrastructure can be more beneficial for the industrial
sector.

Since a bank is performing as a debtor and earns interest on loan, in conventional financing the bank focuses on the creditworthiness of the customer rather than the utilization of lending. Borrowers with Islamic background repulse and evade interest-based financing because of its complex procedures. Therefore, to obtain and return the financing from the banking sector, the borrowers financial constraints should be prioritised efficiently (Ayyagari et al. 2006).

Development in Islamic financial system undoubtedly plays a vibrant role in an economy, Instruments and products offered can fairly deal with every nature of business (Elhiraika 2003). Researchers pointed out that economic growth gets affected by Islamic financial system through various channels (Bougatef et al. (2020); Bozkurt et al. (2020); Chazi et al. (2020); Ledhem and Mekidiche (2020); Furqani and Mulvany (2009); Tabash and Dhankar (2014)). Abduh and Azmi Omar (2012) examined the relationship between the development of both conventional and Islamic banking and economic growth in context of Bahrain using time series quarterly data from 2000 to 2010.

Results reveal the significant positive bidirectional relationship between Islamic finance and long-term economic growth, but this relationship doesn’t exist in the short run, whereas conventional banking development is significantly related to the economic growth in the long and short run. Profit sharing mechanism based on Shari’ah rulings is the best principal (Khasanah et al. 2013)). Furthermore, Sardar et al. (2013) portray that product offered by Islamic banks are more suitable to small farmers. By avoiding interest and gambling, the Islamic financial system restructures financial transactions and instruments in accordance with Shariah principles (Tabash and Dhankar 2014), and a well-managed financing system accelerates economic growth. Kassim and Majid (2015) reveals long run relationship between Islamic financing and economic growth in Malaysia.

In contrast, literature portrays the issue of non-linearity or the threshold on the finance-growth nexus where some of the studies argued that financial development is beneficial for the growth up to a certain level (Law and Singh 2014). When financing surpasses the optimal threshold level, it can have a negative impact on economic growth. The law of diminishing returns suggests that as an input factor (such as financing) is increased beyond a certain threshold level, the marginal productivity of that factor will eventually decrease. This means that additional financing beyond the threshold level may have a diminishing effect on economic growth, or even have a negative impact on growth. This is because the resources allocated towards financing may be diverted from other productive uses, leading to inefficiencies and diminishing returns. Swamy and Dharani (2019)investigate the relationship between financing and economic growth for 24 economies, using panel data from 1983 to 2013.

They evidenced the presence of nonlinearity and found an inverted U-shaped relationship between financing and growth. They state that there is a threshold effect of financing which would increase the cost of financing instead of enhancing the economic growth, as too much finance is harmful. Another study on the finance growth nexus conducted by Rousseau and Wachtel (2002) found a ”vanishing effect ”of financial development on economic growth. Moreover,
Islamic Banks’ Decomposed Financing...

The literature portrays the issue of non-linearities and threshold effect on finance-growth nexus where some of the studies argued that financial development is helpful for the growth up to a certain level, then it dampens the growth when surpassed the threshold due to vanishing effect braced by law of diminishing returns. Too much can be as bad as too little. Arcand et al (2015) documented the hypothesis of “Too Much Finance” stating that the marginal effect of financing remains positive until it reaches to a certain threshold point, but there will be diminishing effect after that point.

So, in this scenario financial development may have negative marginal impact on economic growth. In field of strategic management, many relationships follow an inverted u shape pattern, where moderate levels of a strategy lead to optimal performance. To gain deeper insights into the conventional wisdom that too much of a good thing can be harmful to performance, Law and Singh (2014) in their study postulate that it is not necessary that more finance will positively affect economic growth. Arcand et al (2015) suggest a threshold when credit to the private sector reaches up to 80% of the GDP after that financing starts having negative impact on output growth. Ruiz (2018) shows that countries above the threshold point grew faster but those below the threshold point comparatively grew less. Using panel data of 24 economies from 1983 to 2013, Swamy and Dharani (2019) found an inverted u-shaped relationship. They claim that because “too much finance is harmful,” there is a threshold effect of financing which would increase the cost of financing instead of enhancing the economic growth. They proceed with the argument between financing and GDP growth investigated by Bozkurt et al (2020) in Turkey for the period of 2005 to 2016 by applying ARDL bounds testing, two hypotheses have been developed in this study. In the case of Islamic financing, they have found a u shape relationship that depicts “more finance more growth whereas for conventional financing it became inverted u-shape representing “Too much finance” hypothesis from the literature.

On the other hand, Yuksel and Canoz (2017) state that Islamic bank financing has no effect on the industrial sector productivity during 2005-2016 in Turkey, which might be the reason for the low percentage share of Islamic banking in the Turkish economy. Beck and Demirgüç-Kunt (2008) attempt to decompose the financing facility into firm credit and household credit. They indicate that instead of household loans, landing to enterprises creates positive impact on economic growth. Household financing is an important part of bank lending activities in many countries worldwide.

They also found insignificant relationship between household financing and growth in developed countries whereas relationship between enterprise credit and economic growth proved to be significant. Ibrahim and Alagidede (2018) suggest that, financing is mostly sensitive to economic growth below a certain threshold level. Whereas, it significantly accelerates the economic growth for economies above the estimated threshold point.

The study conducted by Benczúr et al (2019) investigated the nonlinear impact of credit on economic growth. They found evidence to support the hypothesis that business credit has a positive effect on economic growth, whereas, credit to households negatively effects the growth for the selected group of countries.
In general, if reduction in financing facility seems beneficial for any particular economy, then shrinking household credit could promote economic growth. Benczúr et al (2019) also support the hypothesis that, household financing diverts funds from the enterprises that could positively contribute in the path of growth by enhancing their productivity. Chu (2020) argued that, financially constrained enterprises fail to develop their R&D projects because of diversion of financing facilities from producers to consumers. Slowing down the process of research and innovation consequently hampers the growth. Manzoor and Arshed (2021) examined the impact of producer and consumer financing provided by Islamic and conventional banks on inflation in Pakistan. Results shows that Islamic consumer financing is well participating in the management of inflation. When both satisfactory monetary policy and fiscal policy are set up to encourage the demand and supply of bank financing to the real sector, it will increase the productivity of key sectors of the economy and eventually promote economic development.

Islamic financial system is a potential source for the eradication of debt financing and it can mend the efficiency of the financial resources for both producers and consumers. All the leading conventional banks in Pakistan are required to launch Islamic banking divisions considering its increasing demand in the country. ERGEC and Selçuk (2020) empirically examine the causal relationships between banking financing (Islamic, conventional) and real economy in turkey on monthly data span 2010-2020. They found that impact of Islamic finance on industrial production in turkey is relatively limited but strong influence of the real economy on Islamic finance. Bougataf et al (2020) found two-way causality between PLS financing and industrial output growth in Malaysia from 2010-2018 by applying ARDL approach.

Literature shows some other variables also impact the growth other than financial development (Law and Singh 2014). For instance, inflation uncertainties lowers the real output growth as price fluctuations harms the productivity and economic efficiency (Kassim 2016; Zarrouk et al 2016. High inflation rates are often seen as a sign of poor macroeconomic management, including inadequate monetary policy, fiscal policy, or structural issues in the economy. Demetriades and Rousseau (2016) states that financing growth nexus can also influenced by bank regulation and supervision. Corruption, political interference of fragile rule enforcement may cause to dampen the growth or even distract finance to extravagant and unproductive activities (Law and Singh (2014)).

Yes, that is correct. Lower interest rates reduce the cost of borrowing, making it easier and more affordable for businesses to invest in capital and expand their production capacity (Svilokos et al 2019). This increased investment can lead to higher output growth in the future as firms become more productive and efficient. When the real interest rate rises it leads to postpone the consumption thus savings increase which can negatively impact the economic activities. In contrast, lower interest rate increases the economy’s liquidity, lowering the consumption cost and increasing the aggregate demand (Le Roux and Ismail (2004)). Interest rate uncertainty apparently effects investment behavior (Alvarez 2010). The European Commission (2009) conducted research on a sample of 25 European countries reveals that, real interest rates in selected European
Islamic Banks’ Decomposed Financing:

countries have negative association with manufacturing output growth.

To our knowledge, the above-mentioned review of the literature reveals that there is a debate in the literature and studies related to Islamic financing and output growth has overlooked the nonlinear dynamics of financing in Pakistan. Therefore, in this study we have covered the gap by adopting Haans et al (2016) methodology to validate the presence of nonlinear effect of financing on output growth by decomposing financing into Islamic producer financing and Islamic consumer financing. However, existing studies on the nonlinear relationship between financial development and economic growth mostly conducted on highly heterogenous panel data of countries. In terms of higher income, middle income, and lower income countries, these studies provide mixed findings.

That is why the issue of economic growth through bank financing remains unresolved. Jalil et al (2010) suggest that single country analysis may provide better framework to investigate the finance growth nexus. So, this study pursues to fill up the gap in the literature by examining the nonlinear impact of Islamic decomposed financing in context of Pakistan. Our study demonstrates its originality because two co-existed or dual banking systems are operating under the same financial circumstances and regulatory framework. This study can provide new evidence regarding the impact of both types of Islamic financing, considering the demand and supply dimensions, on industrial output growth for a developing country like Pakistan. Furthermore, due to financing optimization among real sectors, Islamic banking sector will be able to manage its profit from the financing to the borrowers.

This study proposes a framework of Islamic financing optimization which will reflect a threshold of financing and where more financing is needed (with cost reduction and maximized profit share) and at what level the cost of financing would increase. This can contribute in the growth of Islamic banking sector and its market share will eventually increase. Hence, with this study, the evidence built on industrial growth could help policymakers to formulate specific policies to enhance the sectoral economic growth.

3 Econometric Methodology

The aim of this research is to investigate the nonlinear impact of Islamic bank decomposed financing on output growth. Therefore, this study used industrial output growth as a dependent variable, whereas Islamic producer financing and Islamic consumer financing are taken as independent variables. In order to capture the nonlinear impact of financing, quadratic terms of Islamic producer financing and Islamic consumer financing are included in the model. Additionally, inflation and interest rates are included as independent variables to account for their potential impact on economic growth in Pakistan. High interest rates can increase the cost of borrowing and reduce investment spending, leading to lower economic growth. High inflation can also lead to economic instability and lower economic growth. All the employed financial variables are used after the
logarithmic transformation.

3.1 Data sources

Quarterly data for the period 2010; Q4 to 2020; Q4 has been extracted from the various sources including international finance statistics, Islamic banking quarterly bulletins of state bank of Pakistan

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Symbols</th>
<th>Units</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial output</td>
<td>IND</td>
<td>VAD %age of GDP</td>
<td>International finance statistics (IFS)</td>
</tr>
<tr>
<td>Independent variable</td>
<td>IPF</td>
<td>%age</td>
<td>(Islamic banking quarterly bulletins, State bank of Pakistan, SBP)</td>
</tr>
<tr>
<td>Islamic producer financing</td>
<td>IPF²</td>
<td>Sq term</td>
<td>(Islamic banking quarterly bulletins, State bank of Pakistan, SBP)</td>
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<tr>
<td>Islamic consumer financing</td>
<td>ICF</td>
<td>%age</td>
<td>(Islamic banking quarterly bulletins, State bank of Pakistan, SBP)</td>
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<tr>
<td>Islamic consumer financing quadratic term</td>
<td>ICF²</td>
<td>Sq term</td>
<td>(Islamic banking quarterly bulletins, State bank of Pakistan, SBP)</td>
</tr>
<tr>
<td>Interest rate</td>
<td>INT</td>
<td>%p.a</td>
<td>International finance statistics (IFS)</td>
</tr>
<tr>
<td>Inflation</td>
<td>INF</td>
<td>CPI (2010=100)</td>
<td>International finance statistics (IFS)</td>
</tr>
</tbody>
</table>

Functional form is shown in Equations (1) and (2)

\[ INDP = f(IPF + IPF^2 + INT + INF) \]  \( 1 \)

\[ INDP = f(ICF + ICF^2 + INT + INF) \]  \( 2 \)

In order to explore the proposition "too much finance" and "more finance more growth", a quadratic term \( IPF^2 \) has been included as used by Samargandi et al (2015) and Global (2018) to analyze nonlinear impact of Islamic financing.
Islamic Banks’ Decomposed Financing...

Nonlinear model

\[ Y = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \cdots \]  

Ianiro et al (2015) mathematically provided the visualization effect of possible outcomes using calculation methods (Chiang 1984) by following, this study shows an inverted u-shaped profile for both type of financing indicating that more financing will not contribute to industrial output growth after surpassing the calculated threshold point.

Model of nonlinear Islamic financing

Following are the quadratic equations for estimation

\[ \text{IND} = \beta_1 \text{IPF}_{it} + \beta_2 \text{IPF}^2_{it} + \beta_3 \text{INT}_{it} + \beta_4 \text{INF}_{it} \]  

\[ \text{IND} = \beta_1 \text{IPF}_{it} + \beta_2 \text{ICF}^2_{it} + \beta_3 \text{INT}_{it} + \beta_4 \text{INF}_{it} \]  

The threshold estimated from the equations will identify the optimal level for both type of financing. It is estimated by equating first derivative to zero.

\[ \frac{\beta_{ICF}}{\beta_{IND}} = \frac{\beta_1 \text{ICF}_{it}}{2 \beta_2 \text{ICF}_{it}} = 0 \]  

\[ \text{ICF}_{it} = -\frac{\beta_{ICF}_{it}}{2 \times \beta_2 \text{ICF}_{it}} \]  

4 Results and discussion

This section presents and discusses the main empirical findings, relying on Eq. (1) and (2). Here we assess the impact of Islamic decomposed financing on industrial output growth. The results are presented in the following arrangements.

Descriptive evaluation

To assess the nature of the variables, table 2 provides the summary statistics.

<table>
<thead>
<tr>
<th></th>
<th>LNINDP</th>
<th>LNICF</th>
<th>LNIF</th>
<th>LNINF</th>
<th>LNIPF</th>
<th>LNIPF^2</th>
<th>LNINTR</th>
<th>LNINF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.60756</td>
<td>2.468</td>
<td>6.126</td>
<td>4.3444</td>
<td>18.88</td>
<td>2.2063</td>
<td>4.9941</td>
<td></td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.05068</td>
<td>0.176</td>
<td>0.89</td>
<td>0.0402</td>
<td>0.348</td>
<td>0.285</td>
<td>0.1764</td>
<td></td>
</tr>
<tr>
<td>Skewness</td>
<td>-0.0574</td>
<td>0.896</td>
<td>1.042</td>
<td>-0.815</td>
<td>-0.78</td>
<td>0.0241</td>
<td>0.0357</td>
<td></td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.54426</td>
<td>3.285</td>
<td>3.749</td>
<td>5.4652</td>
<td>5.268</td>
<td>1.6696</td>
<td>2.3861</td>
<td></td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>0.37738</td>
<td>5.621</td>
<td>8.372</td>
<td>14.921</td>
<td>12.9</td>
<td>3.0278</td>
<td>6.6526</td>
<td></td>
</tr>
<tr>
<td>Probability</td>
<td>0.82804</td>
<td>0.06</td>
<td>0.015</td>
<td>0.0006</td>
<td>0.002</td>
<td>0.2201</td>
<td>0.7216</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>41</td>
<td>41</td>
<td>41</td>
<td>41</td>
<td>41</td>
<td>41</td>
<td>41</td>
<td></td>
</tr>
</tbody>
</table>

Source: Estimation using E-views12 statistical software

Basic information and distributional characteristics of data utilized in the study are provided in descriptive evaluation. Such as, the mean value is higher than its standard deviation for all the variables, depicts that the data is well disbursed around the mean. Jarque Bera test of normality, shows the data sets are not normally distributed, as the data is large enough, the central limit theorem determines that the variables are asymptotically normal (Lind (2000)).

Correlation matrix represents the degree of relationship among the variables. The correlation coefficient can have values ranging from -1.0 to 1.0 or we can say that the values cannot be greater than 1.0 or less than -1.0. A correlation of -1.0 represents a perfect negative correlation, while a correlation of 1.0 represents a perfect positive correlation. So the results of each pair is showing as per standards value. Table 3 shows that there is no multicollinearity among the variables.

<table>
<thead>
<tr>
<th>LNINDP</th>
<th>LNICF</th>
<th>LNICF^2</th>
<th>LNIPF</th>
<th>LNIPF^2</th>
<th>LNINTR</th>
<th>LNINF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.2956</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNICF</td>
<td>0.2848</td>
<td>0.999</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNICF^2</td>
<td>0.2337</td>
<td>0.284</td>
<td>0.998</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNIPF</td>
<td>0.2394</td>
<td>-0.284</td>
<td>-0.301</td>
<td>0.9979</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNIPF^2</td>
<td>-0.2729</td>
<td>0.548</td>
<td>0.555</td>
<td>-0.259</td>
<td>-0.25</td>
<td></td>
</tr>
<tr>
<td>LNINTR</td>
<td>-0.5037</td>
<td>-0.903</td>
<td>-0.895</td>
<td>0.2346</td>
<td>0.224</td>
<td>-0.315</td>
</tr>
<tr>
<td>LNINF</td>
<td>-0.5037</td>
<td>-0.903</td>
<td>-0.895</td>
<td>0.2346</td>
<td>0.224</td>
<td>-0.315</td>
</tr>
</tbody>
</table>

Source: Estimation using E-views12 statistical software

In table 4, results of Augmented Dickey-Fuller (ADF) and Kwiatkowski Phillips Schmidt Shin (KPSS) tests of unit root are reported. These tests are applied in order to avoid the possibility of spurious regression and used with intercept and no trend specification.
### Table 4. Unit root test

<table>
<thead>
<tr>
<th>Variable</th>
<th>at level ADF test (Prob)</th>
<th>KPSS test</th>
<th>Decision at level</th>
<th>1st difference ADF test (Prob)</th>
<th>KPSS test</th>
<th>Decision at 1st diff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNINDP</td>
<td>-1.8365 (0.3579)</td>
<td>0.3034</td>
<td>Mixed</td>
<td>-3.7294 (0.0073)</td>
<td>0.1683</td>
<td>Stationary</td>
</tr>
<tr>
<td>LNIPF</td>
<td>-3.8895 (0.0047)</td>
<td>0.2321</td>
<td>Stationary</td>
<td>-9.2013 (0.000)</td>
<td>0.2027</td>
<td>Stationary</td>
</tr>
<tr>
<td>LNIPF²</td>
<td>-3.8607 (0.005)</td>
<td>0.2239</td>
<td>Stationary</td>
<td>-9.1639 (0.000)</td>
<td>0.1954</td>
<td>Stationary</td>
</tr>
<tr>
<td>LNICF</td>
<td>-3.0237 (0.0427)</td>
<td>0.7558</td>
<td>Nonstationary</td>
<td>-4.1614 (0.0025)</td>
<td>0.2845</td>
<td>Stationary</td>
</tr>
<tr>
<td>LNICF²</td>
<td>-3.2361 (0.0264)</td>
<td>0.7478</td>
<td>Nonstationary</td>
<td>-4.1567 (0.0025)</td>
<td>0.2662</td>
<td>Stationary</td>
</tr>
<tr>
<td>LNICF</td>
<td>0.0623 (0.9587)</td>
<td>0.7883</td>
<td>Nonstationary</td>
<td>-4.9439 (0.0002)</td>
<td>0.2182</td>
<td>Stationary</td>
</tr>
<tr>
<td>LNICF²</td>
<td>-2.3630 (0.1585)</td>
<td>0.2538</td>
<td>Mixed</td>
<td>-3.0621 (0.0392)</td>
<td>0.1288</td>
<td>Stationary</td>
</tr>
</tbody>
</table>

Note: KPSS Critical values 0.739 1%, 0.463 5% and 0.347 @ 10%.
*Significant at 5%.
Since all the variables becomes stationary at first difference, this implies that all the variables are nonstationary in nature as the order of integration is not same I (1) or I (0) for all the variables. Therefore, the knowledge obtained from the OLS approach has caused us to modify our behavior, which in turn has caused OLS to become redundant. In this regard we have applied Auto Regressive Distributive Lag (ARDL) approach developed by Pesaran et al (2001) to empirically analyze the dynamic interactions and long-run relationships among the selected variables. Table 5 shows empirical estimates of ARDL where the F bound statistic is greater than the critical value of (IPF) and (ICF) model confirms that even though the variables are nonstationary, their co-movement is sufficiently coordinated, and all the independent variables have a causal effect on the dependent variable. Furthermore, the explanatory strength of independent variables for IPF model is 91%, whereas it is 89% for ICF model.

<table>
<thead>
<tr>
<th>Table 5. ARDL model statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INDP= f (IPF+ IPF²+INF+INT)</strong></td>
</tr>
<tr>
<td><strong>F-statistic</strong></td>
</tr>
<tr>
<td>95% Upper bound</td>
</tr>
<tr>
<td>90% Upper bound</td>
</tr>
<tr>
<td><strong>Diagnostics Test</strong></td>
</tr>
<tr>
<td>A: Serial correlation</td>
</tr>
<tr>
<td>B: Functional form</td>
</tr>
<tr>
<td>C: Normality</td>
</tr>
<tr>
<td>D: Heteroscedasticity</td>
</tr>
<tr>
<td>CUSUM</td>
</tr>
<tr>
<td>CUSUMsq</td>
</tr>
<tr>
<td>R-squared</td>
</tr>
<tr>
<td>DW-Statistics</td>
</tr>
</tbody>
</table>

Source: Estimation using E-view12 statistical software

An array of four diagnostic tests is applied to evaluate the reliability of the models, like normality test, functional form, serial autocorrelation and, heteroscedasticity. Since all these tests came out insignificant, it is reasonable to say that the model is valid and trustworthy at a 10% level of confidence. The long term estimations of the model are presented in Table 6. The main aim of this study was to determine the quadratic impact of Islamic decomposed financing on industrial output growth, whether U-shaped or inverted U-shaped.

ARDL long run estimates indicate that the coefficients of 1 ,2 from the equation showed a positive and negative impact on industrial output growth and both are statistically significant also. Here 1% increase in Islamic consumer financing ($\beta_1$) will increase Industrial output by 2.63%, but the output will decrease by 0.49 % as ICF increases ($\beta_2$). So, the outcome of signs confirms the link between Islamic consumer financing and industrial output growth is Inverted U-shaped in the selected model. Law of diminishing returns state, when
productivity reaches to its optimal level then an additional input beyond this level will result in less efficient productivity, eventually productivity falls. This implied that, Islamic consumer financing dampens the industrial output growth after surpassing the threshold level of financing. These findings are similar to Samargandi et al (2015) stated that financial deepening might have negative effect beyond a certain threshold after which financial development no longer contributes to growth (Law and Singh (2014); Arcand et al (2015)) because adding new debt will increase the risk of default, which will increase the cost of debt (Oliynyk-Dunn 2017).

Similarly for Islamic producer financing, inverted U-shaped profile confirms that higher financing could hamper growth because of debt overhang such as interest payments, for instance, compounding in conventional banking and higher profit share in Islamic banks (Sakti et al 2017). Results shows that 1% increase in Islamic producer financing ($\beta_1$) will increase Industrial output by 1.60%, but the output will decrease by 0.13% as the financing increases ($\beta_2$). Law and Singh (2014) reasoned that it is due to vanishing effect braced by the law of diminishing returns (Arcand et al 2015).

Our findings also suggest that 1% increase in interest rate will negatively contribute to the output growth in model of Islamic consumer financing by 0.07% and for Islamic producer financing, 1% increase in interest rate will decrease the output growth by 0.06% in the long run. I is considered as cost of capital and when cost of capital increases, it will add to cost of production and prices will rise automatically. Islamic banks generally referred to interest free banking whose operations are developed according to Quran and Sunnah. KIBOR is the benchmark to determine the rate of returns also for Islamic financing.

If the benchmark increases banks will require a higher share in equity financing or higher rent in debt financing so it will make financing expensive for buyers. Inflation also has negative impact on the growth of industrial output as our results show if inflation in the economy increases by 1% it will decrease the output by 0.35% in case of Islamic consumer financing, and for Islamic producer financing 1% increase in inflation, the output will decrease by 0.55% in the long run. Price fluctuations increases due to inflation that harms productivity and economic efficiency. High inflation leads to dampen the economic growth (Akpan et al 2015; Kassim 2016; Zarrour et al 2016) because higher inflation is an outcome of poor quality and pathetic macroeconomic policies.

To acquire the necessary requirements for the presence of an inverted u-shape

<table>
<thead>
<tr>
<th>Table 6. Results of long run coefficients of Islamic decomposed financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Islamic Producer Financing</td>
</tr>
<tr>
<td>---------------------------</td>
</tr>
<tr>
<td>Regressors</td>
</tr>
<tr>
<td>LNIPF</td>
</tr>
<tr>
<td>LNIPF$^2$</td>
</tr>
<tr>
<td>LNILNTR</td>
</tr>
<tr>
<td>LNILNTR</td>
</tr>
<tr>
<td>TREND</td>
</tr>
<tr>
<td>Threshold</td>
</tr>
</tbody>
</table>

Note: Author estimations using E-views 12 software
profile, in both type of Islamic financing, Fig 5 is showing a threshold value of Islamic producer financing calculated as 5.97% of total Islamic financing based on the first order derivation ($\beta_{IPF}$) and the existing disbursement of IPF till 2020Q4 is 4.31% of total Islamic financing. Findings suggests that financing may not be growth promoting beyond the calculated threshold point or cutoff value for Islamic financing. This indicates that IPF can be increased till the cutoff value, but beyond that level financing may not be growth promoting.

Furthermore, for Islamic consumer financing 2.28% of total Islamic financing is already disbursed till 2020Q4 for which the threshold value of ICF is 2.68% based on the first order derivation ($\beta_{ICF}$) (see Table 5). These results postulate that ICF can be increased till the calculated threshold level of financing, but after surpassing that level further financing does not contribute to economic growth positively as suggested by Samargandi et al (2015).

The long run equilibrium’s viability is determined by how rapidly the short run model converges towards the long run model.

Table 6. Results of short run coefficients of Islamic decomposed financing

<table>
<thead>
<tr>
<th>Regressors</th>
<th>Coefficient (Prob)</th>
<th>Regressors</th>
<th>Coefficient (Prob)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(LNIPF)</td>
<td>-0.1213 (0.8866)</td>
<td>D(LNICF)</td>
<td>0.2248 (0.6708)</td>
</tr>
<tr>
<td>D(LNIPF^2)</td>
<td>0.0396 (0.6872)</td>
<td>D(LNICF^2)</td>
<td>-0.0428 (0.6678)</td>
</tr>
<tr>
<td>D(LNINTR)</td>
<td>-0.0382 (0.3138)</td>
<td>D(LNINTR)</td>
<td>-0.0149 (0.7075)</td>
</tr>
<tr>
<td>D(LNINF)</td>
<td>-0.1478 (0.6223)</td>
<td>D(LNINF)</td>
<td>-0.2244 (0.4743)</td>
</tr>
<tr>
<td>ECM(-1)</td>
<td>-0.2079 (0.0594)</td>
<td>ECM(-1)</td>
<td>-0.1572 (0.1365)</td>
</tr>
<tr>
<td>C</td>
<td>-0.00009 (0.9874)</td>
<td>C</td>
<td>0.0016 (0.8009)</td>
</tr>
</tbody>
</table>

Note: Author estimations using E-views 12 software

The \(\text{ecm}(-1)\) coefficient of -0.20 of Islamic producer finance in Table.6 shows how any policy intervention in the model via independent variable alters the equilibrium position and how the dependent variable moves towards this new equilibrium. Hence, we may anticipate monetary policy targets for financing through Islamic producer financing to be realized in around 0.20 years to achieve
maximum output growth. In the short run output growth, the current value of Islamic consumer financing, interest rate and inflation is negative and insignificant (but significant in Islamic producer financing). Islamic consumer financing does not have a strong equilibrium as compared to producer financing this is because the producer financing has a larger volume. By analyzing both the short-run and long-run results, we have obtained a comprehensive understanding of the inverted u-shape relationship between Islamic decomposed financing and industrial output growth, and how this relationship changes over time in Pakistan.

5 Conclusion and Policy Recommendation

There is a debate in the literature on two propositions where “more finance more growth” formed u shape relationship and “too much finance harmful for growth” formed an inverted u shape relationship between finance and growth. Studies related to Islamic financing and output growth overlooked the nonlinear dynamics of financing in Pakistan. In this study we investigate the impact of Islamic decomposed financing on industrial output growth in order to revisit the existing relationship in Pakistan. We find an inverted u-shape relationship between Islamic decomposed financing and industrial output growth in the long run and this relationship is insignificant in the short run for both type of Islamic financing, because the share of Islamic financing has historically been very low in comparison to conventional finance. More finance is not always favorable for economic growth , our findings reveals that various financial resources (both in terms of their origins and recipients) have significantly diverse effects on output growth.

Empirical findings suggest that there is a threshold effect, wherein the degree of financial development is favorable for growth only up to a particular level of financing, and that once this point is surpassed, it might be detrimental to growth. As more financing is provided, the marginal productivity of that financing may decrease, and eventually, the additional financing may become less effective or even counterproductive. This can lead to inefficiencies and wastage of resources, and ultimately harm the overall economic growth. Therefore, it’s important to identify the optimal threshold level of financing that can lead to sustainable economic growth without causing any adverse effects.

Finally, from the policy perspective we believe that our findings might have potential importance for policymakers in terms of implementing steps that improve the quality of Islamic finance rather than only expanding it. Islamic banks could use the information on the threshold point of financing to better allocate their financing to recipients, ensuring that they receive an optimal amount of financing that would promote their productivity and contribute to economic growth. It could also help Islamic banks to avoid over-financing, which could lead to diminishing returns and a decline in economic growth. Islamic financing has proved to provide private as well as social gains to the society and is more
growth promoting with the extension of will of Allah.

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