JIEF Journal of Islamic Economics and Finance
İslam Ekonomisi ve Finansı Dergisi

ISSN 2149-3820
e-ISSN 2651-5342

2018 4(2) 175-194

journal homepage: http://dergipark.gov.tr/jief

ECONOMIC CONTRIBUTIONS OF INTEREST-FREE FINANCE MODELS

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ARTICLE INFO

Article history:

Received: Sep 21, 2018
Accepted: Dec 29, 2018

JEL Classification:

G21
P43
P51

Keywords:

Islamic economics,
Islamic finance,
Murabaha, Mudaraba

ABSTRACT

The current economic model carries as many problems as successes. For this reason, attempts have been made to develop alternative economic theories. Islamic economics is sustainable in this respect and suggests a strong model. In this study, the solutions Islamic economics proposes some economic problems like high inflation and interest-based disparities have been revealed through the model's Islamic financial applications which are partially reflected in contemporary practice. The studies conducted in this field are insufficient. At the same time, by revealing the true spirit of the interest-free financial system, suggestions have also been included for solving problems arising from current interest-free financial practices. Through these aspects, the study fills a gap in the literature. Thus, improving practices and developing models is important both for theorists and professionals.

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To cite this article: Dinç, Y. (2018). Economic Contributions of Interest-Free Finance Models. *Journal of Islamic Economics and Finance*, 4(2), 175-194.

FAİZSİZ FİNANSAL MODELLERİN İKTİSADİ KATKILARI

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MAKALE BİLGİSİ

Makale Geçmişi:

Başvuru: 21 Eylül 2018
Kabul: 29 Aralık 2018

JEL Sınıflandırma:

G21
P43
P51

Anahtar Kavramlar:

İslam Ekonomisi,
İslami Finans,
Murabaha,
Mudaraba

ÖZ

Cari iktisadi model başarılı olduğu kadar sorunlar taşır. Bu nedenle alternatif iktisadi teoriler geliştirilmeye çalışılmaktadır. İslam iktisadı bu bakımdan sürdürülebilir ve güçlü bir model önermektedir. Bu çalışmada İslam iktisadının enflasyon, faiz temelli haksız eşitsizlikler gibi iktisadi sorunlar karşısında getirdiği çözümler, modelin pratiğe yansımış kısmı olan İslami finans uygulamaları üzerinden ortaya konmuştur. Bu alanda literatürde yeterli sayıda çalışma bulunmamaktadır. Aynı zamanda faizsiz finansal sistemin iktisadi potansiyelini ortaya çıkarmak üzere faizsiz finans uygulamalarındaki problemlere dönük çözüm önerilerine yer verilmiştir. Çalışma bu yönleriyle literatürdeki boşluğu doldurmaktadır. Böylece teorisyenler ve profesyoneller için uygulamaların iyileştirilmesi ve modelin geliştirilmesi anlamında önemlidir.

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Kaynak göster: Dinç, Y. (2018). Faizsiz Finansal Modellerin İktisadi Katkıları. *İslam Ekonomisi ve Finansı Dergisi,* 4(2), 175-194

Since production is the basic focus of capitalism, which is more a theory of supply than demand, banks depend on increase in investment to fulfill their needs (Bencivenga & Smith, 1991; 195). On the other hand, production is a function of investment. Capitalism's concentration on production has brought it success (Ritzer & Jurgenson, 2010; 14). Behind capitalism's production success may be found the problem of interest-based disparities. Thus, by ensuring the need to grow investments and being able to protect resources, it has been successful on the supply side in terms of increasing production capability. The issue of interest-based disparities has been ignored for the sake of production, however, the spread of this attitude has caused failure in cherishing the success of supply because of being unable to maintain demand. For this reason, capitalism has systematic problems that have caused an economic model in which each crisis follows another.

Capitalism has strengthened its success on the supply side by consolidating resources and using financing mechanisms efficiently (Brealey et al., 1977; 371). In this respect, the basic financing mechanism is bank intermediation. Bank intermediation has fed the sources capitalism needs for financing investments. In this respect, it is the basic element of the theory developed on the side of production.

The demand crisis that capitalism experiences, has also turned into a problem for banking, which produces investment financing-oriented solutions. In order to achieve sustainability, meanwhile, banks have developed individual financing services that serve the purpose of investment financing by partially abandoning their actual functions (Calder, 2009; 24). In this way, capitalism ensures its sustainability without offering a proper solution to the interest-based disparities problem. Financing consumption through debt, however, is a temporary solution. If new and more functional solutions are not developed, capitalism will be unable to preserve its sustainability.

Islamic financing, and Islamic economy, of which it is a part, basically establish its claim on the side of production that capitalism places the bar high. However, Islamic economy handles production as a tool for active distribution, unlike the approach of capitalism which sees interest-based disparities as the tool for production.

This superior approach of the model has given birth to a structure where Islamic finance nourishes production for active income distribution. In this case, interest-free financial solutions are offered to daily economic problems. Meanwhile, Islamic finance also offers solutions to the economic problems stemming from interest that occur at the center of the capitalist financial system.

The first part of this study compares the conventional and Islamic banking business models. The second part handles solutions to the problem of inflation using *murabaha* and *ijarah* financing and at the same time discusses the concepts of maturity-difference arbitrage and cost advantage, which are among the economic benefits of *murabaha* economics. The solutions Islamic financing proposes to the problem of interest-based disparities using *mudarabah* and *musharakah* financing are also dealt with in this part. Application problems and recommendations are given in the last section. This study is important for developing Islamic economic theory, spreading Islamic financial practices to large masses, and also for future studies in this field.

FINANCIAL INTERMEDIATION MODEL

Banking is the financial intermediation from those with fund surplus towards those with fund deficiencies (Merton, 1995; 23). According to classical theory, banks perform the function of transferring funds for financing investments. As such, direct loan transfer costs are high due to the issues of asymmetric information and maturity mismatch. Banks gain recognition by scaling costs, combating information asymmetry, and undertaking the task of dealing with maturity incompatibility.

When comparing this in light of classical theory, banks transfer the funds they collect from households to businesses and provide the resources they feel necessary for making investments. In this way, employment is ensured by improving investments and growth targets are achieved by increasing production. The authority to collect funds has been given to banks is the most exclusive authority presented to an enterprise due to the design of the function it is expected to perform in the general economy and the estimated positive results it will procure in terms of growth. Additionally, banks are felt necessary due to the efficiency of their fund-raising function. Banks, which perform the duty of Central Banks in ensuring the liquidity necessary for markets through money-deposit mechanisms without issuing bank notes, play a key role in preventing inflation that issuing bank notes otherwise causes. However, applying interest on capital, which is a production input, feeds inflation by way of costs. The banking function, which has two paths, is performed by conventional banks and interest-free financial institutions, the most important alternative developed so far. In interest-free financing, processes operate opposite to those of the conventional banking system. In terms of functioning, all interest-free financial institutions have a unique structure. The conventional banking system's functioning leans on the basic logic of classical theory related to the functioning of banking.

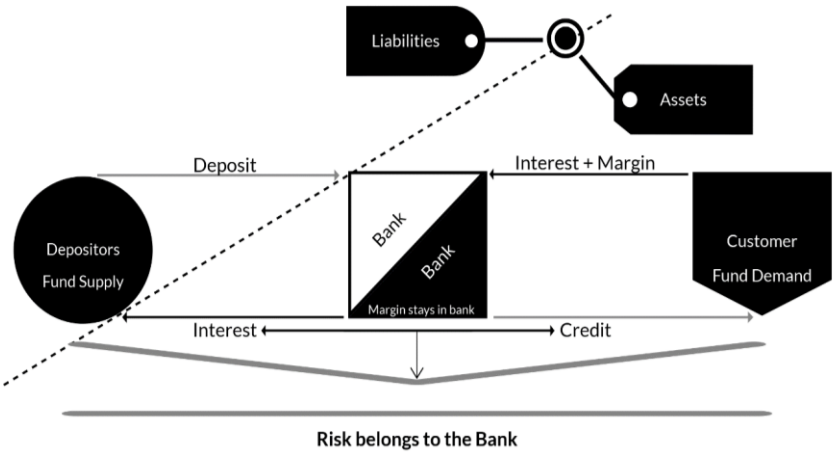
Conventional Banking

Conventional banking fulfills classical bank-intermediation activities by ensuring fund-flow to borrowers by adding interest margins on deposits collected in return for a specified interest rate. In this respect, the deposit exists at the beginning of the process. On the conventional side, the banking intermediation process begins by collecting deposits at a pre-set interest rate.

In *Figure 1*, those with excessive funds provide inputs to conventional banks through their deposits. When deposits are provided, the interest rate to be paid at maturity is determined at the start. After this phase, the bank uses the excess funds as a loan by adding a margin to those which are available for funding. The loan is offered in cash. In this process, depositors obtain a certain interest earning. Those with a funding gap receive loans by paying off the amount they owe together with an additional margin on the interest rate that is paid to the depositors. In this process, the bank's profit rate matches its applied interest margin. In conventional banking, because interest and principal payments are guaranteed, the risk belongs to the bank.

According to Smith, banks have disruptive effects on market balance because they raise lending costs based on their applied interest margins. According to Smith's theory, the money market is homogenous and has enough bonds and investors. All transactions are carried out in this market at a single price (here, the price is the interest rate). The theory's results are correct because they are Pareto-optimal in the market.

Figure 1. *Conventional Bank Intermediation*



Source: Author

Smith in fact thought the necessity of banks' money-producing functions to be ineffective and opposed printing banknotes under a certain amount (Gherity, 1994; 434). In this situation, the banknote would also depart from its original feature of an exchange tool, and the market would actively offer its own opportunities. However, in practice, banks are seen useful because the cost of borrowing directly from debt markets would be higher than the bank's interest margins due to the cost of lending decisions made by lenders (Hammond, 1991; 65).

The phenomenon of interest lies at the base of conventional banking. In this respect, activities held outside the interest rate cannot be performed. According to this interest-based system, people make use of their savings in banks to obtain a certain amount of return. However, one of the motives that comes to the forefront when depositing money to the bank is security. Banks also make use of funds from depositors who transfer their fund surplus to banks with a security motive. However, some depositors who apply to banks with the motive of a specific return amount have the tendency to stockpile with the encouragement of the interest-based system. For this reason, they prefer interest investments. This situation proves the view that claims banks obstruct economic growth because the funds of those who give up their investments due to alternative cost are also used with the intention to finance consumption as well as investment. Retail banking services, which had started in the 1920s and developed after the 1970s, are enforced today and hold an important place in banks' financial statements (Tschoegl, 1987; 67). In this respect, the problem of financing consumption has emerged as the other side of the exclusion effect. According to this, conventional bank intermediation has moved away from classical theory, resulting in a temporary solution to the interest-based disparities capitalism left neglected through retail banking activities. This has prevented the spread of savings through those with the potential to invest. For this reason, savings have remained in a certain group of households, their investment potential has been ignored, and financial structure for consumption has emerged. On the other hand, the interest-free finance model is mainly intended for financing investments. Its functioning, on the other hand, works in an opposite manner compared to conventional banks.

Interest-free Finance

Unlike conventional banks, interest-free finance performs the function of bank intermediation on a profit/loss basis. Interest-free banking should not be

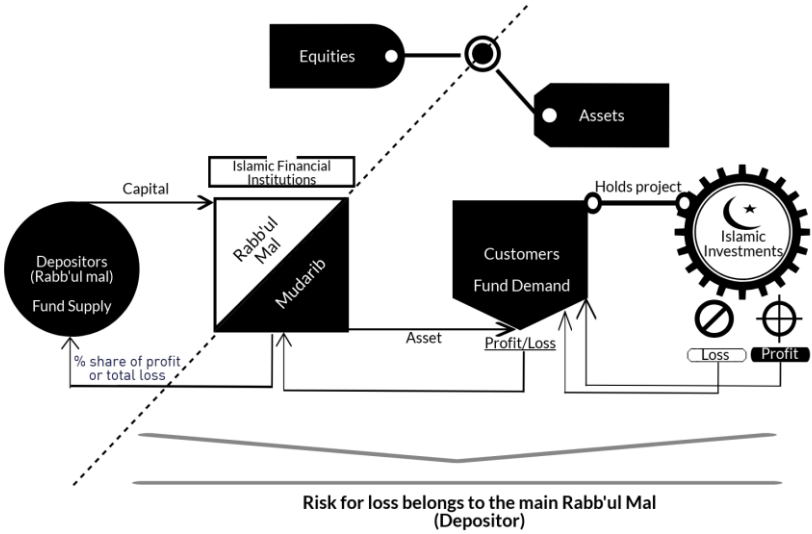
treated as a form of bank structure that just avoids interest (Ayub, 2017; 80). In this respect, those with excess funds as *rabbul mal* (the owner of capital) transfer their deposits (participation funds) to interest-free financial institutions as *mudarib* for the purpose of purchasing and immediate selling/renting of goods/equipments, or transferring capital for financing (Dinc, 2017a; 95). In this respect, interest-free financial institutions perform bank intermediation without the function of moving away from economic growth. Those with excessive funds know they are participating in the investment or in supporting consumption.

Figure 2 shows the interest-free bank intermediation system. Resources are obtained from those with excessive funds through the capacity of *mudarib* for financing investments in the financial intermediation of interest-free banks. Interest-free financial institutions act as a kind of proctor for those with more funds in order to finance legitimate activities that can be expected to profit in terms of *mudarabah*, the classical interest-free finance model in which one side participates with labor and the other side participates with his/her capital. The rate of the share in the profit is the only criteria decided at the beginning of the agreement.[3]

Unlike in conventional banking, which have a certain interest-rate, interest-free financial institutions cannot assure a certain rate of profit because the accrual rate intended for those with excess funds is not an input as it is with interest in conventional banking. The accrual of profits or losses results from the process that operates in the interest-free finance business model (the day when the participation accounts from *rabbul mal* is collected is not known). Namely, profit or loss is not the input of the interest-free finance business model, it is its output. From this perspective, the capital side of *mudarabah* is not participating in the profit/loss but in the risk.

[3] This may change in some practices. For example, in Turkey until the latest regulation on Islamic deposit in November 2018 Islamic banks participated in the loss at a half rate of their profit share

Figure 2. *Interest-free Bank Intermediation*



Source: Author[4]

The input of the business model is investment financing. Accordingly, the system supports investments in the form of sales, rights, or capital instead of money, unlike the conventional banking model. Contrary to this, the system obtains profit or loss. The transfer of goods/capital/equipments within the transfer mechanism is performed using the methods of *musharakah* and *mudarabah* which are capital transferring models, *ijarah* (leasing) or in the form of *murabaha* which are goods/equipment transferring models.

After obtaining the profit/loss, accruement is performed after separating the *mudarib's* share for those who had excess funds at the share percentage determined at the beginning of the process. Namely, the system works on an accrual basis. Accordingly, those on the *mudarabah* side receive profits or losses as a result of how things have accrued.

In this respect, the business model operates opposite to classical bank intermediation. Accrual is guaranteed when deposits take place in classical bank intermediation. In the interest-free financing model, meanwhile, accrual is the result obtained in the fruition state in the result of a legitimate project financing

[4] The model is generated from Turkish practice and may differ in other cases. All type of financing considered as project in Turkish Islamic banking model.

that has expected profits.

In this regard, the interest-free financial business model is an alternative to the conventional banking system. The main factor forming the alternative is that those who transfer their excess funds to interest-free financial institutions participate in the risk. In the conventional banking model, bearing the loss is not an issue. In this respect, conventional bank depositors' consenting to such a risk is also not emerging possible situation. By participation, fund owners are knowingly and willingly included in the losses; a state of resource assessment in interest-free institutions which is incompatible with capitalist arguments.

The main determinant of the interest-free finance business model is the participation of fund owners. After this point, the interest-free finance business model separates from the conventional banking model.

The most fundamental difference between conventional banking and the interest-free finance system is the fundamental basis of their business models being interest-based or profit/loss-based. In other words, the issue of who carries the risk is at its very center. This is such a differentiation that after this point, all processes differ. As previously mentioned, interest-free finance thus considers investment as an instrument of distribution.

INTEREST-FREE FINANCIAL TOOLS

The building blocks of the interest-free business model are its financing methods. These methods bring solutions to daily economic problems thanks to their structure that evolved from real economy to finance. This section will discuss the solutions that *murabaha*, *mudarabah*, and *musharakah* bring to some of basic economic problems.

Murabaha

Arbitrage is known as an intermediate gain. Because the issue is usually money and capital markets, arbitrage is defined as a form of trade, income, or profit based on buying in a cheaper market and selling in a more expensive market and hence profiting. In general terms, each trade that has some kind of intermediate gain reaches its goal through the concept of arbitrage. In the economic system, many activities can be explained through arbitrage. One of these is *murabaha* financing.

Murabaha is an interest-free financing method that works in the form of advanced purchasing and deferred selling (Abdul-Rahman, 1995, 431). This

type of financing provides resources in the form of transferring goods. In other words, it is not cash but has the same quality. Today, a significant portion of the financing carried out by interest-free financial institutions is realized by means of the *murabaha* method.

The fact that businesses in our economy treat debts and debtor structures as operating capital causes *murabaha* financing to move away from its main function. Meanwhile, application problems originating from interest-free financial institutions, which will be discussed in the next section, also cause *murabaha* to move away from its original purpose. Yet *murabaha* is in actuality a preferable form of financing because it basically offers maturity-difference arbitrage.

Maturity-Difference (Mark-up) Arbitrage

Maturity-difference arbitrage provides earnings by purchasing a commodity/good from the market where the price of a good's certain maturity is cheaper. In other words, this means preferring a lower rather than a higher maturity difference. This form of earning is possible only if an interest-free *murabaha* financing institution operates in the economy. In this respect, maturity-difference arbitrage becomes possible if the maturity-difference applied to a seller at a given rate is higher than the ratio to principal of realized profit amount that interest-free financial institutions apply for *murabaha* financing. It would be useful to explain this with an example.

For example, a company that trades cheese learns that it can buy one ton of cheese at a price of 1,000 Turkish Liras (TRL) cash, and the same amount of cheese at a 3-month-maturity price of 1,100 TRL. In this process, the maturity difference the dairy farm imposes at a 3-month maturity is 10%. The opportunity of maturity-difference arbitrage arises in the case where the same company determines the 3-month maturity sale price of one ton of cheese can be realized at an amount less than 1,100 TRL by way of *murabaha* financing from an interest-free financial institution. When the related transaction is realized through *murabaha* financing by an interest-free financial institution, the cheese is purchased from the dairy for 1,000 TRL in cash. If we assume the ratio of realized profit principal to be 7% for 3 months, one ton of cheese is sold for 1,070 TRL to the company. A maturity-difference arbitrage of 30 TRLs, corresponding to 3%, is obtained in this casewith the market research that the company conducts between commodity/good and finance.. The realization of intense arbitrage activity using this aspect of *murabaha* effectively may end with balancing prices among the markets. This is the basic principle

behind *murabaha* financing. In other words, the demand for financing is a form of trade aimed at obtaining maturity-difference arbitrage. However, this feature of *murabaha* financing loses its visibility if the businesses consider it as only a form borrowing. For this reason, *murabaha* financing is subject to criticism in the interest-free finance field.

Overcoming this problem may not only be the problem of interest-free financial institutions but also of its partners (customers).

Cost Advantage

Another aspect of *murabaha* financing is that it can offer cost advantage. Cost advantage is the ability of a *murabaha* business to acquire a certain set of generic products at a more cost-effective price using bargaining power in favor of its customers. Cost advantage can be considered as one of the basic supports for maturity-difference arbitrage. In practice we can find examples of using cost advantage for borrowers like Turkish Agricultural Cooperatives.

Thus by being provided a discount from the market's cash price of related goods, maturity costs can be relatively reduced. However, application, which will be mentioned later, do not allow this opportunity to be used.

But when considering from economic contribution perpective, *murabaha* produces a solution to the problem of high inflation through its moderate inflationist structure using its qualities of maturity-difference arbitrage and cost advantage.

Murabaha and Inflation

Inflation has two basic sources. The first comes from growths in demand, the second from increases in costs. Another cause of inflation which is the decrease in money's purchasing power due to an increase in money supply. Here, high inflation is considered as a problem. Moderate inflation is a necessary phenomenon for sustaining economic viability (Parasız, 1998).

Inflation caused by cost increases is where *murabaha* offers a solution. As commodities/goods subject to *murabaha* generally have the quality of production inputs, goods acquired at higher costs relative to futures markets cause an inflationary increase in production costs, namely by being unable to be bought with future purchase money from spot markets (Ozdemir & Goksel, 2003; 60). However, maturity-difference arbitrage brings a deflationary effect

within high maturity cost by giving the opportunity to supply goods, which are a production input, at a more reasonable cost. In this respect, *murabaha* enables sustainability of a moderate inflation.

At the same time, *murabaha* can be understood as having broken from the mutually nourishing structure of interest and inflation. Inflation grows as interest is applied to capital, the input of production. Interest rates rise as inflation grows (Crowder & Hoffman, 1996; 115). This vicious cycle leads to the crisis of capitalism where production falls behind the interest costs of the expected profit.

In this way, capitalism has transformed the experience of crises into a market reality in the form of a wave of conjuncture. *Murabaha* financing may bring an alternative to the capitalism-inflation-interest relationship through its deflationary structure within inflation. At the same time, it may bring an important solution in the understanding of market sustainability.

In addition, *murabaha* collects market information and paves the way for implementing finance models in the form of interest-free financial partnerships. In other words, *murabaha* is a financing method that gathers know-how from the real economy. Hence, it has naturally become prevalent and has emerged as the basic financing model for interest-free financial institutions.

The market information *murabaha* provides offers an advantage for the use of interest-free financial institutions that conventional banks will never have. In this way, interest-free financial institutions have sufficient market knowledge for the financing models they can develop based on partnership. This situation forms the motivation for interest-free financial institutions to develop partnership financing, which is at the core of the model as deemed by many scholars. This is because those who don't have knowledge or sales experience about interest-free financial institutions cannot realize the product of shared financing. This situation has been a reality in many markets before interest-free financial institutions emerged. For this reason, interest-free financial institutions should be considered as actors in the real market. The dominant structure in the financial market feeds the structure of the interest-free institutions, which are in fact disconnected from the real economy in pratice, whereas interest-free finance is a tool of the real economy. The conventional model, through its transaction structure, develops a structure outside the economy; for this reason, the banking structure that grows extraneous to the economy should not be true for Islamic banks. This situation is an irony capitalism developed within its own theory. Finance does not feed the economy; economy feeds finance.

Mudarabah-Musharakah

Mudarabah and *musharakah* are the interest-free finance methods that produce direct contribution, in contrast to the indirect economic contribution of *murabaha*. However, performing these financings and forming their groundwork closely relate to *murabaha's* effectiveness.Mentioning *mudarabah* and *musharakah* is difficult if *murabaha* cannot be properly performed.

Mudarabah is an interest-free financing method in the venture of human capital-physical capital. In this respect, one party participates in the project with his/her labor and the other party participates with his/her capital to realize a certain project (Askari et al., 2014; 192). It has been examined above as a method used by interest-free financial institutions for collecting funds. *Musharakah* is the type of interest-free financing in which both parties participate to realize a certain project through their capital and labor (Usmani, 2004; 17).

Spreading the capital directly to the base can provide an effective contribution to solve the interest-based disparities. As the solution to the problem of interest-based disparities feeds the demand, it eliminates conjuncture fluctuations. In this way, an endlessly-sustainable economic structure can be created.

In *mudarabah* and *musharakah*, owners of capital benefit from the risk premium, which is revealed by the entrepreneur. Here the premium is profit and can be defined in the form of the emerging risk's result of measurable success.

On the other hand, guaranteed interest where loss is never possible cannot be considered as a success.

Entrepreneurs are those who reveal the risk they themselves can tolerate through their own labor. This can be taken as an effort at explaining rather than a definition. In the literature's definitions, one group of economists has been observed attempting to define entrepreneurship through its features and another to define it through entrepreneurial outputs (Sharma & Chrisman, 1999; 84). An attempt to combine these two perspectives has been put forth here. The entrepreneur will be recompensed with profit if the risk account is successful. If the risk account fails, they will acquire loss. In *mudarabah* and *musharakah*, if the risk exposed by the entrepreneur is under the capital owners' margins, financing occurs.

In this way, the side that has the risk will take part in the profit or loss.

Interest-free banking behaves in this field as an actor of capital market while distributing risk, spreading the base, and thus providing prosperity to capital owners through cash flow over profit are problems for which conventional banking has not produced a solution. Fisher does not accept capital revenues as income (1930; 25).

Capital-based Models and Defeating Interest-Based Disparities

In the present case, the economic system transfers the purchasing power through wage, which is considered as a cost in capitalist theory, instead of a share in prosperity. On the other hand, the interest-free finance system goes beyond the functioning of the capitalist banking model by spreading prosperity to both the capital owners and investors who can develop projects. Thus, the effect expressed as prosumption emerges where production and consumption can be provided simultaneously.

At the same time, *mudarabah* and *musharakah* can be taken in opposition to capitalist theory, which deals with taking advantage of production factors. In this respect, labor, capital, natural resources, and the entrepreneur will receive wage, interest, rent, and profit, respectively (Dinler, 2011; 135). With these two models of interest-free financing, the capital owner will receive a share of profits just as the entrepreneur not interest. The capitalist system, by isolating capital, makes interest the subject athough distinguishing the capital-owner from the entrepreneur is difficult in many cases. In essence, other models of interest-free finance also offer profit-sharing yields, not interest except in the ijarah model, the capital owner earns rental income, such as in case of natural resources.

Essentially, the factors of production in Islamic economics should be reconsidered. According to this, humans are responsible for societal status (reputation), which is considered a blessing, alongside how they benefit from health, wealth (prosperity), knowledge, and time as mention in a Hadith. If time is considered as a phenomenon outside human control, four distinct or differently-expressed production factors can be mentioned.

PROBLEMS SEEN IN INTEREST-FREE FINANCE PRACTICES

The practices of interest-free financial institutions cannot reflect their original essence due to the secular structure they operate in. The loss of

authenticity prevents their total benefit from emerging. For this reason, the interest-free system is criticized as if it is a derivative of the conventional system. However, the conventional banking system cannot find the courage to apply interest-free financial tools. Meanwhile, interest-free financial models, which one might think of as being distorted, are similar to conventional models in practice.

Application Problems in Murabaha and Solutions

Trade is an economic activity performed over goods/commodities. There are goods at the center for *murabaha* as a form of trade as well. Profit is inherent in any form of trade. *Murabaha* is a model focused merely on maturity difference as profit source.

Maturity difference is the time value of a good in finance perpective. Evaluations in the form opposite of salam contracts can be considered as the groundwork to these evaluations (Gozubenli, 1997; 19).

Today in *murabaha*, the client, being the representative, by buying goods on behalf of the institution, sells them to him/herself via proxy. Although debates are found that necessitate goods to actually pass through interest-free finance institutions, these are understood to not exceed a principled approach. Goods passing through institutions should be evaluated in the meaning of having them placed at the center.

Those who oppose the proxy mechanism have no argument regarding goods being placed at the center because commodities/goods can be placed at the center even if the proxy, or even the proxy's proxy, carries out the transaction. In this regard, the method of calculating the maturity difference in the existing system should be revised to return *murabaha* back to its potential form.

In this respect, maturity difference (*md*) is a function of inflation and risk premium[5] in practice:

$$f(md) = (\text{expected inflation} + \text{risk premium}) \qquad (1)$$

The relation between inflation and delayed interest is seen as a general rule in the literature (Kaya, 1994; 348). Similarly it is true for interest. (Fama, 1975; 282)

[5] Risk Premium is in general use in this paper and includes different risk parameters, expected rate of return, and other factors except good/commodity related parameters.

The Interest (*i*) function is shown as follows:

$$f(i) = (\text{expected inflation} + \text{risk premium}) \quad (2)$$

These two are as different from each other as the variables in risk-premium computations; as both resemble inflation, maturity difference is criticized by likening it to interest (Koc, 2018; 94). The similarity of profit rates and interest rates has been proven statistically (Cetin, 2017; 252). In theory, the concept of uncertainty is used instead of the risk premium in the interest function. Levi and Makin (1979; 69) explained these two determinants in their studies while investigating every important theory about interest. Although the concept of uncertainty need to be argued in terms of Islamic jurisprudence, discussing it in terms of *murabaha* is unnecessary because the maturity-difference function must be fictionalized as follows in reality:

$$f(md) = (\text{exp.inflation} + \text{variables related to the commodity/good}) \quad (3)$$

In this respect, the actual difference can be shown. Here, although inflation is mainly contained in the variables related to goods, the two upper variants of the function exist because having additional revenues in line with the rate of inflation is generally considered legitimate (Dinc, 2017b; 2052).

If the commodity/good is not placed at the center, the transaction looks like a loan. *Murabaha* that approximates a loan faces the problem of resembling heavily criticized organized tawarruq. *Murabaha* is fundamentally a kind of investment finance for providing production inputs. However, interest-free financial institutions finance different goods over a standard profit rate. Yet different goods are seen to have different maturity structures in the real economy (Yanik & Karadaş, 2015; 137). By asking businesses from different sectors questions and examining their invoices, we have observed various maturity differences applied to different goods in the data obtained. For example, while the maturity costs in iron construction reach 8% per month, it is 4% in the food sector and 2% in the textile sector.[6]

Interest-free financial institutions are able to finance all commodities/goods (except non-Shariah ones) at a standard rate without over-extending the

[6] The rates shown as maturity differences on invoices are the "default interest rate" in the Turkish legal system (Kaya, 1994; 348). In terms of Turkish Accounting Standards, markup income, interest income, and delayed interest expenses are recorded as financing income/expenses (Yanık, 2012; 333). At the same time, profits from maturity differences under the Tax Methods Law can be reported as financial income instead of commercial profit (Avci, Avci, 2016; 86). This situation internalizes the irony at the company's end. In this respect, interest-free financial institutions are treated under interest-rate items in the sense of accrued accounting records after all operations have been carried out and all records have been dealt with in an interest-free manner.

content. Interest-free finance institutions still in operation today cannot be questioned about what amount they financed annually to which commodity/good. There is no such record.

The problems in interest-free financial institutions present in companies deviates *murabaha* from its spirit. In this respect, an invoice is subject to financing nothing else. However, *murabaha* is so closely related to commodities/goods that it holds the interest-free financial institution responsible for their delivery. Moreover, as actualizing *murabaha* in its potential form is not applied, market information that is actually very useful is missed. *Mudarabah* and *musharakah* cannot be easily realized unless information is obtained and sufficient expertise are developed through good/commodity based financing.

Application Problems in Mudarabah and Musharakah and Solutions

Murabaha is what provides the know-how for *mudarabah* and *musharakah* financing. As *murabaha* cannot be realized in its potential form, it is not easy for financial institutions to find the appropriate sector or area for investing. In other words, the *murabaha* mechanism must be fully functional to realize widespread *mudarabah* and *musharakah*.

This situation has come to the forefront in the *musharakah* finances seen in practice. In Turkey, interest-free financial institutions have produced partnerships (*musharakah* financing) in the construction sector. Thinking otherwise is contradictory to the dynamics of the real economy. Because interest-free financial institutions have acquired expertise in the real estate market with the mortgage sales they have realized in *murabaha*. However, in areas they do not specialize in, performing *musharakah* or *mudarabah* has not been possible yet.

Despite this, interest-free financial institutions' realization of *mudarabah* and *musharakah* financing is difficult because firms that generate above-average profits will prefer debt transactions that are mainly around inflation. On the other hand interest-free financial institutions will not want to allocate *mudarabah* or *musharakah* financing to underperforming businesses.

Companies that accept the partnership of interest-free financial institutions, even if they have above-average profitability, may be in a difficult position due to the high-profitability expectations of interest-free financial institutions that cannot fully participate in real economy. Companies that have already achieved *musharakah* have been seen losing their sustainability in Turkish case.

This actually is a very basic problem. Behind the problem lies the missing budgetary logic. Accordingly, profitability can be high on a project that has been revealed for the first time. In this respect, the expectation of the interest-free financial institution may be high. However, budgetary work behind the first period is updated at the rate of inflation (Nelson, 1976; 931). In this regard, the project can produce normal profits after the first period. This situation disappoints those who expect profit accrual rates to change if *mudarabah* and *musharakah* are done instead of *murabaha*. Profit accrual rates can only be changed if the goods are received back at the center of the *murabaha*. In this respect, the budget function (b) *mudarabah* and *musharakah* finances will be exposed to can be shown as follows.

$$f(b)= (exp.inflation+expectations(targets)) \qquad (4)$$

At this point, the basic variable is inflation. However, the determinant of the characteristics is also what reveals the expectations or objectives of the business (Merchant, 1981; 826).

When considering *mudarabah* and *musharakah*, reputation can be considered as a production factor. Accordingly, a limited share can be allocated to benefit from the reputation of interest-free financial institutions. Otherwise, a financialized interest-free finance system is a matter of criticism (Asutay, 2012; 110). In order to bring out the system's essential benefit, returning to its spirit is necessary.

CONCLUSION

Interest-free finance models have certain economic contributions. In particular, the proper application of these models may provide sustainability, especially for interest-based disparities. In addition, they can help to manage reasonable inflation environment and permanent solution to the deflation. The application issues show the basic building block of the interest-free financial system to be *murabaha* financing.

Due to application-related problems, interest-free models evolving in finance have been unable to complete reveal their identity to show potential economic contributions. However, a new perspective must be provided and the models must be handled for producing a whole ecosystem. The contributions of the interest-free finance system are important in understanding the benefits of the Islamic economic model.

To reveal the real spirit of Islamic finance potential economic contribution of financing methods need to be taken into account in real economy oriented financial intermediation perspective. Goods/ commodities should be taken

into the center of *murabaha* finances to achieve potential economic contribution of it. Similarly, a budgetary perspective should be applied to *mudarabah/musharakah* financing for sustainability of projects as well as partners.

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