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FINANCIAL MARKET FRICTIONS AND STOCK MARKET EFFICIENCY: ASYSTEMATIC REVIEW OF LITERATURE

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ABSTRACT

This study undertakes a systematic review of literature on the association between financial market frictions and capital market efficiency. The desk top research approach was utilized to explore extant literature. Detailed assessment of literature was made to ascertain how financial market frictions drive capital market efficiency. Findings obtained indicate that financial market frictions are more susceptible in developing countries where institutional framework is weak and macro-economic stability are replete. Financial market frictions were ascertained to influence participants in the market to easily deviate from holding portfolios. The literature examined showed that financial market frictions interfere with trading in securities in the stock and affect the efficiency of the capital market generally. The study concludes that the level of financial market frictions goes a long in determining capital market efficiency/inefficiency in a country. Stemming from this, the study therefore recommends that much effort should be exerted by the government to increase market activities through reduction in transaction cost and increase in membership of the Nigerian Stock Exchange (NSE). Regulatory authorities such as Securities and Exchange Commission (SEC) and Nigerian Stock Exchange (NSE) are encouraged to minimize institutional restrictions on trading of securities in the bourse as this will allow the market to flow as a deregulated market.

Keywords: Financial Market, Frictions, Transaction Costs, Market Efficiency, Tax, Information Asymmetry.

1.0 INTRODUCTION

Financial market frictions have long been identified as key factors in driving both short-run economic fluctuations and long-run growth; and by reducing financial frictions, a country can lower macroeconomic volatility and enhance its growth potential (Poyry, 2014).The smooth functioning of financial markets is crucial for the health of the whole financial system and for the well-being of the economy in general.

The fundamental function of financial markets is to channel funds within an economy. To efficiently do so, the market needs to generate prices that accurately reflect all available information and for investors to be able to fully interpret the signals that the prices provide, they need to appreciate and understand the dynamics that drive the discount rates that bring about the prices (Poyry, 2014). That is, the dimensions of risk that matter in determining asset prices. The dynamics that capture the incorporation of information into prices are elegantly

described by the efficient Market Hypothesis in Fama's (1970) seminal paper on "efficient capital markets hypotheses". A market in which prices always reflect all available information is called informationally efficient. On the other hand, a market in which prices do not always reflect all available information is called informationally inefficient one. Informationally inefficient market is largely driven by financial market frictions.

Financial market frictions are factors that measure the difficulty, quantified as a cost or time, with which an asset is traded on a financial market (Stoll, 2000). As noted by Zhu (2013), a financial market friction could be any factor that impacts how long it takes to trade a given amount of an asset at the optimal price. Financial market frictions are synonymous with market imperfections. In the context of this study, the researcher considers market imperfections, defined as market features that contradict the assumptions of traditional efficient market theories (Oshadare, Idolor &Adewolotan, 2022). Financial market frictions or market imperfections cause a market participant to deviate from holding the market portfolio. Transaction cost is an integral aspect of financial market frictions (Ikponmwosa & Edo-Osagie, 2021). Taxes and transaction costs are common and obvious examples of financial market frictions as they irrefutably affect virtually every transaction.

It was Ogbeide and Osamwonyi (2021) who averred that a financial market friction is anything that interferes with trade. Financial market frictions by their nature do influence participants in the market to easily deviate from holding portfolios and also affects the efficiency of the capital market generally. This is so since they interfere with trading in securities in the stock market. Capital markets in developing countries are mostly susceptible to serious financial market frictions because of macro-economic instability and weak institutional framework. Obviously, financial market frictions affect investors' confidence, induce fear, panic, emotion as well as influence their sentiments.

For example, on Saturday 5th of December 2020, stock market investors operating through Investment One Financial Services Limited, a dealing member of the Nigerian Exchange Limited (NGX) and other dealing members of the stock exchange where greeted with the caption; "upward review of stamp duty charges on securities transactions". The information and news were completely applicable to all investors and fund managers buying and selling stocks on the floor of the NGX. Stamp duty, which is a form of tax in this context, is part of the total transaction costs of buying and selling stocks on the floor of the NGX, particularly in the secondary market and is typically reflected on the contract note. Other transaction cost items include the brokerage fee, capital gains tax, Securities and Exchange Commission (SEC) fee, Central Securities Clearing System (CSCS) fee and the NGX fee; and interest charges in margin account can be added for investors involved in margin trading (Ikponmwosa & Edo-Osagie, 2021).

In the primary segment of the capital market, the flotation costs are usually incurred by the security issuers although it is assumed that the cost is built into the per unit price of stocks offered sale or subscription. Principally, the information of upward review of stamp duties and other stock market transaction costs no doubt interfere with the trading behavior and portfolio optimization behavior of investors, and in fact further serves as serious financial market frictions in the Nigerian capital market affect the level of efficiency of the market. In the context of this research, capital market efficiency can be stratified into two, namely,

operational or transaction efficiency, which implies that the cost of transaction is low and the speed of transaction is high, and information efficiency, which relates to the speed at which price sensitive information is reflected in market prices as enshrined in the efficient market hypothesis (EMH) by Fama (1970; 1991).

Thus, in the presence of heightening financial market frictions, the possibility of attaining operational or transaction efficiency is low or not possible. It is on this premise that this research holds the view that there is a connection between financial market frictions and capital inefficiency. A market in which prices always fully reflect all available information, such that one cannot consistently generate superior returns except by chance, is said to be "informationally" efficient or better put, it is referred to as inefficient market. In other words, a market is inefficient if the stock price is not accurately reflecting new information. This may be because the investors or market participants are not able to interpret the new information correctly or there is high financial market friction such as transaction cost which serves as an obstruction for trading freely in the market (Ogbeide &Osamwonyi, 2021). Thus, the lesser the level of financial market frictions such as transaction cost, the higher the level of operational efficiency and as a corollary, the higher the level of information and capital market efficiency. This is the justification for assessing the nexus between financial market frictions and capital efficiency in an exploratory manner in this study. This study is unique and peculiar in that unlike previous researches such asOshadare et al., (2022), Ogbeide and Osamwonyi (2021); Ikponmwosa and Edo-Osagie (2021). Quadrini (2011); Levin, Perill and Zakrajseck (2018)which focused on the empirical analysis of the effect of financial market frictions, this present study explored the literature on the connectivity between financial market frictions and capital market efficiency.

2.0 LITERATURE REVIEW

2.1 Conceptual Literature

2.1.1 Financial Market Frictions

Stoll (2000) defines financial market frictions or imperfections as those factors that measure the difficulty with which a financial asset is traded in the financial market. The author identifies these factors to include time and cost of transaction. Taxes and transaction costs are common examples of market frictions as they undeniably affect most transactions (Keyness, 1936, Summers & Summers, 1989; Wurgler, 2000). However, Lippman and McCall (1986) noted that a friction could be any element that affects the length of time it takes to consummate transaction on a given amount of asset at the optimum price. Recall that most assets can quickly be sold at fire-sale price. Poyry (2014) consider market imperfections as a similar concept to frictions and defines it as market features that contradict the basic assumptions of efficient market theories.

2.1.2 Market Efficiency

Market efficiency is important because the prices paid for shares absorb all available information and thus reflect the fundamental value of share and result in optimal allocation of resources (Kalu, 2008). Efficiency eliminates market distortions and arbitrage opportunities based on asymmetric information. Therefore, there are no opportunities for earning abnormal returns and no systematic attempts at deriving financial forecasts. Market efficiency also aids an investor in formulatinginvestment strategy to be adopted in trading shares in the capital market

2.1.3 Categorization of Financial Market Frictions

In their seminal work, De Gennard and Robotti (2007) classify financial market frictions broadly to include transaction costs, taxes and regulation, asset indivisibility, non-traded assets, agency and information problems. The study further divides transaction costs into cost of trade and the opportunity cost of time. The costs of trade include telephone charges, postage, computer power, data analysis, internet subscription, and similar out of pocket expenditures (DeGennaro and Robotti, 2007; Ogbeide &Osamwonyi, 2021; Oshadare et al. 2022). With advancement in communication technology and proliferation of hand – held devices, these costs have been declining in recent times. For the opportunity cost of time, it is observed that trading takes time, which includes the cost of searching or the time required to gather information, (including seeking a counter party for a given trade) and the time to make and monitor the trade. Efforts to minimize these costs represent profit opportunities. Since the dawn of the twenty first century exchanges and markets have been making more efforts to leverage on automation. The beliefin this study is that in the near future, exchanges will take advantage of Blockchain Technology, Artificial Intelligence (AI), Robotic Engineering, Big Data Science, Internet of Things (IoT) among others to enhance their operational efficiency and reduce costs of transaction.

Taxes and regulations are another major class of market frictions which might be explicit as in the case of company income tax, capital gains tax or even implicit, such as when a given regulation like the prohibition of short selling. Inability to implement short selling strategy can cause investors to incur portfolio loses in a bearish market. This is usually very pronounced in Nigeria, where there are strict rules against short selling as at present.

2.1.4 Implications and Objectives of Financial Market Frictions

Within the framework of the Capital Asset Pricing Model (CAPM), DeGennaro and Robotti (2007) see financial market friction as anything that inhibits trade. This interference is of several implications.

i. First, financial market frictions cause an investor to deviate from holding the market portfolio. In other words, these frictions can cause a market participant to be exposed to more or less risk than she might be willing to take. This definition at first appears very limited but is, in fact, only as limited as the definition of the market portfolio.
ii. Put differently and somewhat less obscurely, financial market frictions generate costs that interfere with trades that rational individuals make or would make in the absence of such frictions.
iii. Financial market frictions cause a market participant to deviate from holding the market portfolio
iv. Financial market frictions prevent investors from holding the market portfolio or optimal portfolio.
v. They also generate costs and unfairly redistribute wealth and hence compromise the ability of the market to function effectively and efficiently with respect to financial intermediation and risk management. Financial market frictions tend to distorts the financial intermediation process and leads to misallocation of scarce resources.

In his essays on financial market frictions, Poyry (2014) addressed the primary objective of the financial markets, which is financial intermediation and risk management. In other words, the aim of the financial market is to harness and channel capital from those with low marginal returns to invest to those with high marginal returns (that is from surplus units to deficit units). This is typically done by the former saving and the latter borrowing, but this channel is limited when the wedge between interest rates of savings and credit is sizable (high spread) as well as when the cost of consummating financial markets transaction is relatively high or prohibitive.

2.2 Empirical Review of Literature

Bougheas and Falvey (2010) study the impact of financial market frictions on trade flows, capital flows and economic development. The study finds that underdeveloped financial markets are replete with agency costs and week institutions which prohibit economic specialization in sectors where finance is important. Conversely, capital tends to flow easily to countries with more robust financial institutions which in turn allow their economies to develop sectors that are financially dependent. In Nigeria for example, it has been recognized that the private sector plays a pivotal role in economic development and this research is inclined to the fact that the financial markets is the prime motor of the economy. However, it appears that high cost of transaction, high interest, and interest rate spread, weak institutions and regulatory obstacles tend to obstruct the wheel of business and economic progress. Businesses in the agricultural, industrial goods, transportation and healthcare sectors among others are constantly struggling to cope with the high cost of capital.

Based on the stylized fact that financial friction drive wedges between savings and investment, Hall (2011) empirically investigated the relationship between high sensitivity of economic activity to financial frictions, using data from 2002 to 2009, using a dynamic model. The study finds that increased financial friction played an important role in the dramatic drop in global economic activities experienced between 2008 and 2009. In other words, the study lends credence to the argument that financial frictions essentially lead to market inefficiencies and mal-adaptions, causing prices to deviate significantly and persistently from their intrinsic value.

Gonatha and Juliana (2021) empirically investigated the effect of financial market frictions on the level of firm diversification in Indonesia from 2008 to 2017. The finding from the study reveals that well – diversified firm can mitigate the stocks arising from external market frictions

Oshadere, et al. (2022) empirically examined the various components of financial market friction and how they affect the Nigerian capital market with emphasizes on variables like transaction cost, taxes and regulations, asset indivisibility, non-traded assets and agency with information problems on stock market performance. Ex-post facto research design was used while the time series data from 1981-2018 was employed. The study used unit root test, co-integration test, correlation and regression estimation methods to analyze the time series data. The study found that the various components of market frictions affected the stock market performance in different ways and also are real determinants of the various responses to issues in the stock market.

Onyesonimazun (2020) empirically examined the relationship between financial market frictions and the Nigerian capital market for a period of 25 years, precisely from 1992 to 2017. The specific aim of the study was to explain the behaviour of gross capital formation (GCF), foreign direct investment (FDI), total value of domestic shares traded (TST) and inflation rate (INFR) and their individual impact on market capitalization (MKTCAP). The study used the ordinary least square econometric technique. Findings from the study revealed that positive and significant relationship exists between gross capital formation (GCF) and market capitalization in Nigeria.

Deng, Zeng and Zhu (2019) studied the relationship between market frictions and political connections in determining financial constraints in China. Specifically, the study finds that firms facing severe market frictions are not as financially constrained as expected. This is because these firms also possess strong personal costs, which alleviate the costs of market frictions. The research also ascertained that financial market frictions significantly affect financial constraints in Chinese firms.

Muai (2017) investigated the effect of market frictions on savings decision among members of Maasai Group Ranches in Kajiado county in Kenya. The study employed descriptive statistics and the ordinary least squares regression estimation method. The study established that market frictions were negatively and significantly related to saving decisions. This implied that an increase in market frictions such as transaction costs, lack of trust and regulatory barriers led to a decrease in saving decisions.

Karlan et al. (2014) observe that market frictions such as transaction costs, lack of trust and regulatory barriers affect provision of saving products especially among the poor. They noted that the use of formal saving products attracts costs such as account opening fees, minimum balance requirement, withdrawal fees, transport and other related costs. These costs are usually a large proportion of poor people's savings. If the cost associated with opening and running formal bank accounts is subsidized, the rate of up-take of formal savings accounts usually increases especially among the poor. In addition, there are other non-monetary costs which discourage mostly the poor from engaging in formal saving. For instance, opportunity cost in terms of time and forgone wages can discourage potential savers if they have to physically travel to the financial institutions offering saving products.

Aysun et al., (2011) examined the effect of financial frictions on the strength of the credit channel of monetary transmission using a DSGE model characterized by financial frictions as emphasized by Bernanke, Gertler, and Gilchrist (1999). They calibrated the model using parameter values for countries with different levels of financial frictions. The study found that the credit channel was stronger in countries with high levels of financial frictions. The stand of the study is that in the countries examined, external finance premiums are more sensitive to firms' financial leverage. By affecting asset prices and borrower leverage, monetary policy has greater impact on external finance premiums and output. The study also ascertained a positive relationship between various measures of financial frictions and the strength of the credit channel, confirming the predictions of the model.

Levin et al. (2005) examined the determinants of market frictions in the corporate market in the U.S. They constructed an empirical measure of market frictions in the corporate market

based on the difference between the credit default swap spread and the corporate bond spread for a large number of firms in a new large dataset. The authors found that the causes of market frictions are both systematic and firm- or bond-specific factors. Mamaysty and Wang (2004) showed that even small transaction costs can have a substantial effect causing investors to refrain from trading. Hou and Moskowitz (2002) characterized the impact of market frictions on a stock's price via its delayed response to information using regression methodology. Findings show that small, volatile, and neglected stocks exhibit significant delay.

2.3 Classification of Capital Market Efficiency

Efficient Market Hypothesis (EMH) asserts that in an efficient market, prices at all times fully reflect all available information that is relevant to their valuation (Fama, 1970). EMH argues that competition between investors seeking abnormal profits drives prices to their 'fair' value. This implies that prices should incorporate information in the market. The ability of a stock market to incorporate information into prices determines its level of efficiency. Fama (1970) stated that the sufficient but not necessary conditions for efficiency are: (i) there are no transaction costs in trading securities; (ii) all information is costlessly available to all market participants, and (iii) all agree on the implication of current information for the current price and distribution of future prices of each security. The EMH can be more specifically defined with respect to the information item available to market participants classified the information items.

Market efficiency according to Fama (1970),is further classified or christened as weak-form, semi-strong, and strong form efficiency, based on the response to historical, publicly available and insider information respectively. The Weak-Form version of EMH, which is the lowest level, asserts that prices of financial assets already reflect all information contained in the history of past prices, trading volume or short interest. This form of efficiency implies that historical prices and volume traded cannot be used to predict future price movements. Semi-Strong version postulates that share prices already reflect all the publicly available information regarding the prospects of a firm. This means that market participants cannot consistently outperform the market by analyzing published information, because such information is adjusted into prices once they are released. Lastly, the Strong-Form posits that the prices of financial assets reflect, in addition to information on past prices and publicly available information, information available only to company's insiders (Fama, 1970).

3.0 CONCLUSION AND RECOMMENDATIONS

The goal of this study was to undertake an exploration of literature on the nexus between financial market frictions and capital market efficiency. The desk top research approach was utilized to explore extant literature. Detailed assessment of literature was made to ascertain how financial market frictions drive capital market efficiency. Findings obtained indicate that financial market frictions are more susceptible in developing countries where institutional framework is weak and macro-economic stability are replete. Financial market frictions were ascertained to influence participants in the market to easily deviate from holding portfolios. Financial market frictions interfere with trading in securities in the stock and affect the efficiency of the capital market generally. The study therefore recommends that much efforts should be exerted by the government to increase market activities through reduction in transaction cost and increase in membership of the Nigerian Stock Exchange (NSE). Regulatory authorities such as Securities and Exchange Commission (SEC) and Nigerian

Stock Exchange (NSE) are encouraged to minimize institutional restrictions on trading of securities in the bourse as this will allow the market to flow as a deregulated market. The NSE and SEC also need to strengthen their regulatory capacities to enhance market discipline and investor confidence. This will involve training personnel to enforce financial regulations, perform market surveillance, analytical and investigative assignments

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