

Acta Universitatis Sapientiae

**Economics and Business**

Volume 8, 2020

Sapientia Hungarian University of Transylvania  
Scientia Publishing House

***Acta Universitatis Sapientiae, Economics and Business* is indexed by RePEc.  
Ranked 965/2084 according to IDEAS/RePEc Recursive Impact Factors**

# Contents

<i>Ottília GYÖRGY – Szilárd MADARAS</i> Factors Influencing SME Outsourcing: Evidence from Romania . . . . .	5
<i>Kamaldeen Ibraheem NAGERI – Umar GUNU</i> Corruption and Ease of Doing Business: Evidence from ECOWAS . . . . .	19
Ranjita KUMARI – Nishant KUMAR Ownership Structure and the Risk: Analysis of Indian Firms . . . . .	39
<i>Raymond Rahaj ADEGBOYEGA</i> Agricultural Financing and Unemployment Rate in Nigeria: A Cointegration Approach . . . . .	53
<i>Amer MORSHED – Zsuzsanna SZÉLES</i> Explore the Lessee Accounting Treatment When Utilizing the Islamic Financial Leasing . . . . .	69
BOOK REVIEW	
<i>Artur LAKATOS</i> <i>Csaba LENTNER</i> : East of West, West of Asia – Historical Development of Hungarian Public Finances from the Age of Dualism to the Present . . . . .	79





## Factors Influencing SME Outsourcing: Evidence from Romania

Ottília GYÖRGY,<sup>1</sup> Szilárd MADARAS<sup>2</sup>

<sup>1</sup>Sapientia Hungarian University of Transylvania (Cluj-Napoca, Romania)  
Department of Economic Sciences  
e-mail: gyorgyottilia@uni.sapientia.ro

<sup>2</sup>Sapientia Hungarian University of Transylvania (Cluj-Napoca, Romania),  
Department of Business Sciences  
e-mail: madarasszilard@uni.sapientia.ro

**Abstract:** The present research, based on a national representative survey analysis of SMEs (that is, small and medium enterprises) from Romania, focuses on the main factors influencing companies' outsourcing. It considers the following dimensions of outsourcing: organizational characteristics, environmental characteristics, relational capabilities, and institutional networks. The results suggest that the younger the SMEs and the more stable their relationship with local institutions, the more likely is for them to adopt outsourcing solutions. Moreover, those SMEs that have secondary offices and have some cooperation with the state also rely on outsourcing. Our results suggest that sector membership also proves to be a significant factor in outsourcing. We find that the highest percentage of outsourcing was done in construction, industry as well as hotels and restaurants sectors.

**Keywords:** SMEs, outsourcing, business relationships

**JEL Classification:** L26, J24

### 1. Introduction

Romanian SMEs are in a special situation as being part of a transition economy, where in the past decade outsourcing solutions have considerably grown because the country has become a destination of IT outsourcing. While outsourcing in one sector (namely, in the IT) might be the norm, it takes different forms in others: relations with the local institutions or with the state and relationship capabilities for the Business Process Outsourcing (BPO).

Competitive advantage can be improved by outsourcing certain organizational capabilities, as the Resource-Based Theory (RBT) approach indicates (Gilley et al., 2004). Normally, a company's activity cannot cover everything, especially in the

case of SMEs; in this sense, the Transaction Cost Economics (TCE) theory suggests that some activities, except the main activity, should be outsourced to achieve higher efficiency (McIvor, 2009; Belso-Martínez, 2010).

In this paper, the main factors influencing SMEs' outsourcing are grouped into four categories: organizational characteristics, environmental characteristics, relational capabilities, and institutional networks. From an organizational perspective, firm size and turnover are the used variables in Bennett and Robson (1999), Görg and Hanley (2004), Knudsen and Servais (2007), and Belso-Martínez (2010). Other indicators are the number of secondary offices and the existence of a written strategy as exogenous variables. The strategic planning of outsourcing was analysed in Arbaugh (2003) and Brewer et al. (2013). The environmental characteristics of SMEs include the sector membership, and the relational capabilities are described by the number of suppliers and the proportion of long-term contracts. Belso-Martínez (2010) included the institutional networks in their analysis. We have two indicators in this section, stable relationships with local institutions and the importance of cooperation with the state. The importance of this study is given by the novelty of the topic and the fact that no one has done a comprehensive research on SMEs' outsourcing in Romania before.

Section 2 of the paper reviews the SME outsourcing literature, Section 3 discusses the outsourcing in Romania, Section 4 considers the main factors influencing the Romanian outsourcing, Section 5 presents the results and discussion, and, finally, Section 6 concludes the paper.

## **2. Literature Review**

The competitiveness of the global economy depends on the ability of companies to integrate into networks as well as on the availability of local networks. It is also important to note the fact that there are many other factors that come into play when companies try to integrate into the global production and supply chain.

Alguire et al. (1994) argued that firms which applied outsourcing on a global level gained important competitive advantages. A wide and comprehensive literature review on outsourcing can be found in Jiang and Qureshi (2006).

Belso-Martínez (2010) investigates the way companies are linked to local outsourcing decisions and the influence they have on new and previously established partnerships. The present study focuses on the importance of networks as well as on the internationalization of outsourcing production, taking into account the size of the companies. Today, SMEs play an increasingly important role not only in the success of local chains but also on international markets. To achieve this, companies tend to use the same methods: outsourcing, joint venture, opening market transactions, and subsidiaries abroad. As a result, we can see an

increased international distribution of production, where the production process is distributed across countries.

Based on a survey analysis from Great Britain, Bennett and Robson (1999) demonstrated that the firm size is a significant control variable for SMEs' external business advisors, which they identified as professional specialist and generalist sources, contacts of customers and suppliers, social contacts, business associations, and government-sponsored agents.

Outsourcing means that certain activities become the responsibility of another company, and if the outsourcing is successful, the activity will be continued outside of the company. This strategy is usually implemented in stages, favouring near/close partnerships to distant partnerships (Graf and Mudambi, 2005).

According to Heshmati (2003), outsourcing is a "different kind of corporate action related to all subcontracting relationships between firms and the hiring of workers in non-traditional jobs". On the one hand, outsourcing depends on the given industry, on the other hand, on the company's size. For example, larger companies have an advantage over smaller companies as they have a more favourable bargaining power with suppliers. At the same time, the more potential subcontractors competing with each other in a certain industry, the better the chance for the manufacturer to find a partner to whom they can outsource certain activities (Görg and Hanley, 2004). The outsourcing of service activities and knowledge-based activities is a business trend that will continue to evolve in the future. The reasons for outsourcing are numerous, but the most important of these are access to new markets or new technologies and lower labour costs (Stratman, 2008).

There is a difference between the types of partnerships that SMEs can enter depending on the industry, for example, in technology versus other more traditional industries. SMEs operating in the IT sector do not usually have all the necessary resources to develop their products; therefore, they frequently turn to outsourcing. In this sector, it is rare for a company to operate independently; instead, partnerships are created to increase efficiency. As opposed to the above, traditional industries do not necessarily have to rely on partnerships to achieve success; instead, their success depends on their ability to innovate.

On the other hand, the age of a given company is decisive in forming partnerships. Start-up SMEs tend to rely on partnerships to outsource, while established SMEs may be less interested in partnerships (Li and Qian, 2007).

The increased use of the value chain system in various industries and service sectors shows that the division of labour exists beyond the boundaries of the company, not just within the company. Outsourcing is nowadays a new business strategy. Several studies have shown that outsourcing contributes positively to an increase in the market value of large companies. Moreover, SMEs can reduce their costs and increase the efficiency of their business processes with outsourcing. Research has shown that offshoring offers an excellent opportunity for SMEs to

become more profitable, thus overcoming resource constraints caused by size (Mohiuddin and Su, 2013).

Other studies show there is no clear correlation between outsourcing and costs, and such connection cannot be inferred from performance either. Outsourcing and its potential advantages are considered to be strategic options (Solakivi et al., 2011).

Interestingly, it is worth noting that, according to a study, outsourcing may have a negative impact on performance. This can happen if there is too much outsourcing activity. This means that with a certain level of outsourcing, uncertainty increases. At this level, making the right outsourcing decisions is becoming increasingly important. Outsourcing can be more costly if companies face greater market uncertainty (Kotabe and Mol, 2009).

Relational capability analysis is currently of great scientific interest, mainly due to the significant growth of strategic alliances and partnerships. Some studies suggest that there is a positive relationship between relational ability and willingness to outsource. The higher your chances with a company solving certain tasks with suppliers and customers, the greater the likelihood that you will continue to outsource activities. Nowadays, the development of relational capabilities and process integration can be one of the main operational aspects of a company. By doing so, it simplifies or eliminates activities that do not create enough value for it. In some sectors, cooperation is needed at every imaginable level to improve the efficiency and effectiveness of the processes (Espino-Rodríguez and Rodríguez-Díaz, 2008).

There are a number of advantages to strategic outsourcing, a successful joint venture between parties. On the one hand, the most qualified workforce carries out the concrete activity, which results in a high-level division of labour. On the other hand, R&D can be carried out at a much higher level of efficiency. Moreover, it is important to note that it might result in lower total costs for the company. Partners who engage in such partnerships gain mutual advantages and ensure long-term profitability (Zineldin and Bredenlów, 2003).

There are studies that focus on the benefits and risks of outsourcing contracts. It is obvious that the right type of contract is the key to the success of outsourcing activities. Several studies bring evidence that a successful outsourcing operation is based on adequate contracting that guarantees the mutual fulfilment of interest between partners (Ngwenyama and Sullivan, 2007).

In the case of outsourcing, cooperation time is also a very important factor. In many cases, market uncertainties encourage long-term contracts. Teixeira (2013) examined whether a company works with short-term independent suppliers or prefers long-term contracts. The main difference between the two outsourcing systems is the uncertainty about the outsourcing price. In the case of outsourcing through long-term contracts, market price uncertainty is eliminated. The decision to outsource always involves a trade-off, especially with regard to the uncertainty/



evolution of the purchase price. Thus, long-term cooperation agreements serve as a risk management tool (Teixeira, 2013).

### **3. Outsourcing in Romania**

In recent decades, Romania has become an attractive destination in the IT sector for both outsourcing and investment purposes. In the past 20-30 years, outsourcing in the IT sector in Romania has brought about enormous growth, so the existence of technology has played a key role in the country's economy. Romania does not offer the lowest prices in the field of outsourcing but has proven to be competitive in the areas of technical and soft skills. In addition to the advanced IT infrastructure, the fact that the workforce in this field is young, motivated, flexible, skilled, and has a good knowledge of foreign languages constitutes a great advantage. Boşcor and Băltescu (2014) found that the relatively underdeveloped infrastructure of Romania represents the most important disadvantage from an outsourcing perspective, in addition to which the government measures and national strategy should be implemented to attract more foreign investors.

In Romania, over the last 20 years, a number of companies have been established, enabling outsourcing to companies operating in the country. These small businesses were created by cooperating with world-renowned companies that entered the Romanian market (And one and Păvăloaia, 2010).

According to a KPMG study, Romania has been one of the most important destinations in Europe for the last 10 years, for example, in the field of IT outsourcing. The provision of global services continues to develop worldwide, making Romania an attractive business environment for investment companies. As a result, local BPO organizations are formed. According to research carried out by Asociația Business Service Leaders in Romania, more than 100,000 employees work in the outsourcing industry in Romania.<sup>1</sup>

However, according to the Kearney Global Service Location Index, Romania has been declining in recent years. This is due to the fact that in recent years ITO and Business Process Outsourcing (BPO) industries have faced major disruptions in digital transformation. The two strongest influencing factors are: automation and cyber security problems. According to the study, digital resonance influences location attractiveness.

Numerous studies address the fact that outsourcing can even be a viable option for SMEs and can bring competitive benefits, thus reducing their costs and increasing the efficiency of their business processes. Outsourcing is an

---

1 Source: <http://www.outsourcingadvisors.ro/wp-content/uploads/2018/10/KPMG-Romania-as-the-destination-for-SSCs-and-BPO.pdf>.

excellent opportunity for SMEs to overcome size and capacity gaps, save money, and make them more profitable. Obviously, there may be different motivations for outsourcing (Mohiuddin and Su, 2013), but, in any case, SMEs can focus on their core competences and improve their overall competitiveness.

We analysed the factors influencing outsourcing for Romanian SMEs based on a national representative survey analysis from 2018, which contains 374 firms. In the survey, the presence of outsourcing agreements for enterprises becomes the dependent variable in our estimations, while the set of exogenous variables are grouped as follows.

The first group of factors, the SMEs' *organizational characteristics*, are the age of the firms, the number of employees, the turnover, the number of secondary offices, and the existence of a written strategy.

Firm size is decisive for outsourcing behaviour, as Bennett and Robson (1999) demonstrated. Smaller firms are more likely to adopt outsourcing solutions, as Görg and Hanley (2004) suggest. Belso-Martínez (2010) states that firm size is defined by the number of employees, which is an important factor in outsourcing. In the study of Knudsen and Servais (2007), the number of employees and turnover are included in SMEs' internationalization purchasing behaviour analysis.

Arbaugh (2003) examined whether there is a link between outsourcing practices, the existing strategy, and company size. He concluded that outsourcing choices and preferences can be greatly influenced by company size. The study suggests that outsourcing practices apply to the best-performing SMEs, thus allowing businesses to focus on their core activities.

Other studies have already examined the relationship between outsourcing and the existing strategy. What is particularly important is the driving force behind outsourcing in the existing strategy. The outsourcing goals formulated in the strategy can be of three types: cost reduction, focusing on core competencies, or growth (Brewer et al., 2013). According to them, outsourcing is an activity where managers can follow several strategies at the same time. Companies that have more outsourcing strategies can achieve greater cost savings than those which follow just one strategy. However, no matter what strategy they follow, there is usually a positive relationship between outsourcing and performance.

The existence of a written strategy was investigated using a four-scale question from “We do not have an elaborated strategy” up to “The company's activity is based on an elaborated strategy”.

The *environmental characteristics* of outsourcing in our database represent the sector membership variable. A number of studies on outsourcing have tried to understand and explain the various factors that influence these activities, including the motivations and the risks. Outsourcing generally changes the structure of the sectors, enabling other companies to enter. This way, outsourcing companies in the sector allow other players in the sector to focus on their core business. In

sectors where outsourcing becomes the norm, financial performance may improve (Harland et al., 2005).

*Relational capabilities* are described by two variables: the number of suppliers and the proportion of long-term contracts. In our database, the number of suppliers related to the main activity was examined using a four-scale division: “1. More than 80% of purchases come from a single supplier, 2. We regularly have transactions with 5–20 suppliers, 3. We have 21 to 100 suppliers on a regular basis, 4.” We have more than 100 suppliers. The proportion of long-term contracts with suppliers (over one year) from the total number of contracts with suppliers was analysed using a five-scale question regarding the percentage.

The *institutional networks* were investigated based on two variables: stable relationships with local institutions and the importance of cooperation with the state, the importance of which was measured using ten-scale questions in the questionnaire. Belso-Martínez (2010) suggested that institutional networks and supplier networks are important factors determining SMEs’ outsourcing activities.

## 4. Factors Influencing Outsourcing

The organizational, environmental, and relational capabilities, the institutional network characteristics of outsourcing for the Romanian SMEs were described by the set of variables, whose statistics are presented below. One of the *organizational characteristics* as factors influencing outsourcing among Romanian SMEs, based on our national representative survey analysis from 2018, is *the age of the firms*. The average is 15.97 years, and the oldest firms have 27 years in the business, but regarding outsourcing we observed a decreasing tendency to adopt outsourcing, as the years pass. Particularly those firms that are older than 19 years tend to adopt outsourcing solutions in a lower proportion (see *Table 1*).

The size of firms is described by the number of employees and turnover, and a slight increase can be observed in outsourcing in the case of SMEs with more employees and higher turnover (see *Table 1*). The firms with more (SO) secondary offices do not appear to have more outsourcing partners compared to those with one to three offices. Those SMEs who have a clear and written business strategy seem to adopt outsourcing in a greater proportion (see *Table 1*).

The *environmental characteristics* of outsourcing in our database refer to sector membership. Outsourcing achieved higher proportions in industry and construction sectors than in others, while the lowest level of outsourcing was registered in agriculture, followed by services (see *Table 2*).

The *relational capabilities* were measured by the number of suppliers (NS) and the proportion of long-term contracts (PC). SMEs adopted outsourcing solutions in higher proportion where the number of suppliers was between 5 and 100 and the

proportion of long-term contracts was between 40% and 80% of the total contracts with suppliers (see *Table 2*).

The *institutional networks* dimension of SMEs included stable relationships with local institutions (LI) and the importance of cooperation with the state (CS). Both variables suggest that those SMEs opt for outsourcing solutions which have stable institutional networks and evaluate the importance of this (see *Table 2*).

**Table 1.** *The organizational characteristics as factors of outsourcing among Romanian SMEs*

Age	1–3	4–6	7–9	10–12	13–15	16–18	19–21	22–24	25–27	Mean	Std. Dev.
No	0	3.13	4.17	4.35	6.45	2.63	21.88	11.11	10.2		
Yes	100	96.88	95.83	95.65	93.55	97.37	78.13	88.89	89.8		
Total	5.08	8.29	6.15	11.76	15.51	9.89	6.68	17.11	11.76	15.97059	7.218289
Empl.	10–37	38–64	65–91	92–118	119–145	146–172	173–199	200–226	227–250	Mean	Std. Dev.
No	8.53	6.56	6.25	0	0	20	0	0	0		
Yes	91.47	93.44	93.75	100	100	80	100	100	100		
Total	68.98	16.31	4.28	3.21	1.07	2.67	1.34	1.07	1.07	40.52941	45.29342
Turn-over	1	2	3	4	5	6				Mean	Std. Dev.
No	7.55	8.33	11.1	0	25	0					
Yes	92.4	91.7	88.9	100	75	100					
Total	88.5	6.42	2.41	1.34	1.07	0.27				2904427	5284709
SO	0	1–5	6–10	11–20	More t. 20					Mean	Std. Dev.
No	6.74	8.06	8.33	0	50						
Yes	93.3	91.9	91.7	100	50						
Total	23.9	66.5	6.43	2.68	0.54					2.55496	5.1421
Strategy	1.	2.	3.	4.						Mean	Std. Dev.
No	11.54	8.91	6.87	5.56							
Yes	88.46	91.09	93.13	94.44							
Total	13.9	27.01	35.03	24.06						2.692513	.9873721

Source: own calculations based on a national representative survey in Romania, 2018

**Table 2.** The environmental and relational characteristics and institutional network as factors of outsourcing among Romanian SMEs

Sect.	Agr.	Ind.	Const.	Comm.	Hot. and rest.	Serv.	Total	Mean	Std. Dev.	
No	12.5	3.37	2.08	15.79	8.00	9.71	8.51			
Yes	87.5	96.63	97.92	84.21	92.00	90.29	91.22			
Total	4.26	23.67	12.77	25.27	6.65	27.39	100.00			
NS	1*	5-20	21-100	More than 100				2.112299	0.6616322	
No	13.79	7.24	4.44	20.00						
Yes	86.21	92.76	95.56	80.00						
Total	15.51	59.09	24.06	1.34						
PC	1-20	21-40	41-60	61-80	81-100	No contr.		3.469982	1.724966	
No	7.14	7.14	2.82	4.40	12.24	16.67				
Yes	92.86	92.86	97.18	95.60	87.76	83.33				
Total	8.02	16.05	20.34	26.07	14.04	15.47				
LI	1	2	3	4	5	6	7	8	9	10
No	0.00	0.00	50.00	100.00	22.22	10.00	5.77	7.83	1.05	11.36
Yes	0.00	0.00	50.00	0.00	77.78	90.00	94.23	92.17	98.95	88.64
Total	0.00	0.00	0.54	0.54	2.41	2.68	13.94	30.83	25.47	23.59
CS	1	2	3	4	5	6	7	8	9	10
No	100.00	0.00	50.00	60.00	21.43	11.76	8.22	2.08	1.43	2.86
Yes	0.00	0.00	50.00	40.00	78.57	88.24	91.78	97.92	98.57	97.14
Total	0.27	0.00	0.55	1.37	3.84	9.32	20.00	26.30	19.18	19.18

Source: own calculations based on a national representative survey in Romania, 2018

\*with more than 80% of purchases

In the following, we focus on the relationship analysis between the variables included in the database using Spearman's correlation and then on the identification of the significant factors of outsourcing using logistic regression.

## 5. Results and Discussion

We calculated Spearman's correlation relationship between the variables included in the model. The most important Spearman's correlation results are as follows:

- between the outsourcing and the age of firms (Age) is -0.1319,
- between the outsourcing and sector membership (Sector) is -0.1154,
- between the number of employees (Empl) and Turnover is 0.4719,
- between the Turnover and the number of secondary offices (SO) is 0.2261, and
- between the relationship with local institutions (LI) and cooperation with the state (CS) is 0.3293 (see *Table 3*).

**Table 3.** Spearman's correlations among the variables

	Outsrc	Age	Empl	Turn- over	SO	Stra- tegy	Sector	NS	PC	LI	CS
Outsrc	1.0000										
Age	-0.1319	1.0000									
Sig.	0.0108										
Empl	0.0450	0.1514	1.0000								
Sig.	0.3863	0.0034									
Turn- over	-0.0216	0.0814	0.4719	1.0000							
Sig.	0.6770	0.1167	0.0000								
SO	-0.0569	0.1763	0.2536	0.2261	1.0000						
Sig.	0.2731	0.0006	0.0000	0.0000							
Strategy	0.0699	0.0142	0.1312	0.0953	0.0781	1.0000					
Sig.	0.1781	0.7851	0.0112	0.0661	0.1323						
Sector	-0.1154	-0.1171	-0.1352	-0.1229	-0.0337	0.0212	1.0000				
Sig.	0.0259	0.0237	0.0089	0.0175	0.5170	0.6833					
NS	0.0885	0.0715	0.0818	0.0875	0.0414	0.0664	-0.0615	1.0000			
Sig.	0.0877	0.1681	0.1149	0.0916	0.4256	0.2004	0.2363				
PC	-0.1048	0.0789	-0.0481	0.0178	0.0103		-0.0146	0.0634	1.0000		
Sig.	0.0432	0.1284	0.3541	0.7321	0.8428	0.6289	0.7781	0.2219			
LI	0.0489	0.0854	0.0720	0.0938	0.0694	0.0489	-0.0867	0.0567	0.0894	1.0000	

	Outsrc	Age	Empl	Turn-over	SO	Stra-tegy	Sector	NS	PC	LI	CS
Sig.	0.3459	0.0995	0.1653	0.0703	0.1814	0.3466	0.0943	0.2747	0.0848		
CS	0.1097	0.0771	0.1230	0.0339	-0.0077		-0.1429	-0.0231	0.0394	0.3293	1.0000
											-0.0705
Sig.	0.0343	0.1373	0.0175	0.5141	0.8823	0.1741	0.0057	0.6565	0.4476	0.0000	

Source: own calculations based on a national representative survey in Romania, 2018

The logistic regression estimation of the Romanian SMEs’ outsourcing provides an identification tool for indicators which increase or decrease the probability of this process (see *Table 4*).

**Table 4.** Logistic regression analysis on the factors influencing outsourcing

Number of obs = 373				
Wald chi2(10) = 116.99				
Log likelihood = -79.477049				
Prob> chi2 = 0.0000				
Outsrc	Coef.	Std. Err.	z	P> z
Age	-.2594394	.0941699	-2.76	0.006
Empl	.2896764	.2115458	1.37	0.171
Turnover	-.3523267	.2389263	-1.47	0.140
SO	-.0592103	.0270993	-2.18	0.029
Strategy	.4033186	.209649	1.92	0.054
Sector	-.3169632	.1380904	-2.30	0.022
NS	.5779818	.3129864	1.85	0.065
PC	.0032859	.0085957	-0.38	0.702
LI	.4782675	.1135238	4.21	0.000
CS	-.0424659	.0094775	4.48	0.000

Source: own calculations based on a national representative survey in Romania, 2018

The logistic regression model estimation results indicate the negative significant influence of the age of firms (Age) at 1%, of the number of secondary offices (SO) at 5%, and of the sector membership (Sector) at 5% on outsourcing. While the relationship with local institutions (LI) and the cooperation with the state (CS) have positive significant influence on outsourcing at 1% (see *Table 4.*), from an organizational perspective, results suggest that in the case of Romanian SMEs the number of employees (Empl), turnover (Turnover), and the presence of a written strategy do not have a significant effect on outsourcing. The SMEs’ relational capabilities indicators, the number of suppliers (NS), and the proportion of long-

term contracts (PC) do not have a significant influence on outsourcing decisions either (see *Table 4*).

The sector membership of SMEs has a significant influence on outsourcing decisions (see *Table 4*), and the results are in line with Harland et al. (2005).

The importance of institutional networks, as Belso-Martínez (2010) also proved, has a significant effect on outsourcing (see *Table 4*).

## 6. Conclusions

Using a national representative survey database from Romania (2018), containing 374 firms, we analysed the main factors influencing the Romanian SMEs' outsourcing, focusing on the organizational and environmental characteristics of firms and on their relational capabilities and institutional networks. The presence of outsourcing solutions in firms was the dependent variable in our database, which contained ten exogenous variables. Our results indicate that the age of firms, the secondary offices, sector membership, the presence of stable relationships with local institutions, and the importance of the cooperation with the state have a significant effect on Romanian SMEs' outsourcing.

Among the organizational characteristics, the SMEs' number of employees and turnover, i.e. the variables which were stated to have a significant influence on outsourcing in the literature (Bennett and Robson, 1999; Görg and Hanley, 2004; Knudsen and Servais, 2007; Belso-Martínez, 2010), proved to be unacceptable factors in the case of Romanian SMEs, while the age of companies and the number of secondary offices resulted to have negative significant influence. Secondly, regarding the environment, our results are in line with the findings of Harland et al. (2005) – namely the sector membership. The sectors with the highest outsourcing in 2018 were construction, industry, and hotels and restaurants. Although we assumed that SMEs with higher relational capabilities are more likely to adopt outsourcing solutions, the two variables describing this dimension – namely, the number of suppliers and the proportion of long-term contracts – turn out not to be significant.

Our results are in line with Belso-Martínez (2010) regarding the importance of institutional networks in outsourcing. An important result in the case of Romanian SMEs is that local institutions and state cooperation proved to be those institutional network factors that have a significant influence on outsourcing. Those SMEs who have a stable relationship with local institutions are more likely to adopt outsourcing solutions. Our results suggest that in the case of SMEs the high degree of embedding, which is represented by cooperation with local institutions and the state, it is likely to weaken the international competitiveness of these in the long run, all the more so because none of the variables describing relational capabilities became significant in the result.



## References

- Alguire, M. S.; Frear, C. R.; Metcalf, L. E. (1994). An examination of the determinants of global sourcing strategy. *Journal of Business & Industrial Marketing* 9(2): 62–74.
- Andone, I. I.; Păvăloaia, V.D.W. (2010). Outsourcing the business services. *Informatica Economică* 14(1): 163.
- Arbaugh, J. B. (2003). Outsourcing intensity, strategy, and growth in entrepreneurial firms. *Journal of Enterprising Culture* 11(02): 89–110.
- Belso-Martínez, J. A. (2010). International outsourcing and partner location in the Spanish footwear sector. *European Urban and Regional Studies* 17(1): 65–82.
- Bennett, R. J.; Robson, P. J. A. (1999). The use of external business advice by SMEs in Britain. *Entrepreneurship & Regional Development* 11(2): 155–180.
- Boşcor, D.; Băltescu, C. (2014). Romania's competitive advantage on the global outsourcing market. *Bulletin of the Transilvania University of Brasov* 7(56): 149–154.
- Brewer, B.; Ashenbaum, B.; Ogden, J. A. (2013). Connecting strategy-linked outsourcing approaches and expected performance. *International Journal of Physical Distribution & Logistics Management* 43(3): 176–204.
- Espino-Rodríguez, T. F.; Rodríguez-Díaz, M. (2008). Effects of internal and relational capabilities on outsourcing: An integrated model. *Industrial Management & Data Systems* 108(3): 328–345.
- Gilley, K. M.; McGee, J. E.; Rasheed, A. A. (2004). Perceived environmental dynamism and managerial risk aversion as antecedents of manufacturing outsourcing: The moderating effects of firm maturity. *Journal of Small Business Management* 42(2): 117–133.
- Görg, H.; Hanley, A. (2004). Does outsourcing increase profitability? *The Economic and Social Review* 35(3): 267–288.
- Graf, M.; Mudambi, S. M. (2005). The outsourcing of IT-enabled business processes: A conceptual model of the location decision. *Journal of International Management* 11(2): 253–268.
- Harland, C.; Knight, L.; Lamming, R.; Walker, H. (2005). Outsourcing: Assessing the risks and benefits for organisations, sectors and nations. *International Journal of Operations & Production Management* 25(9): 831–850.
- Heshmati, A. (2003). Productivity growth, efficiency and outsourcing in manufacturing and service industries. *Journal of Economic Surveys* 17(1): 79–112.
- Jiang, B.; Qureshi, A. (2006). Research on outsourcing results: Current literature and future opportunities. *Management Decision* 44(1): 44–55.
- Knudsen, M. P.; Servais, P. (2007). Analyzing internationalization configurations of SME's: The purchaser's perspective. *Journal of Purchasing and Supply Management* 13(2): 137–151.

- Kotabe, M.; Mol, M. J. (2009). Outsourcing and financial performance: A negative curvilinear effect. *Journal of Purchasing and Supply Management* 15(4): 205–213.
- Li, L.; Qian, G. (2007). Partnership or self-reliance: Prescriptions for small and medium-sized enterprises. *Journal of Business Strategy* 28(6): 29–33.
- McIvor, R. (2009). How the transaction cost and resource-based theories of the firm inform outsourcing evaluation. *Journal of Operations Management* 27(1): 45–63.
- Mohiuddin, M.; Su, Z. (2013). Manufacturing small and medium size enterprises' offshore outsourcing and competitive advantage: An exploratory study on Canadian offshoring manufacturing SMEs. *Journal of Applied Business Research* 29(4): 1111–1130.
- Ngwenyama, O. K.; Sullivan, W. E. (2007). Outsourcing contracts as instruments of risk management. *Journal of Enterprise Information Management* 20(6): 615–640.
- Solakivi, T.; Töyli, J.; Engblom, J.; Ojala, L. (2011). Logistics outsourcing and company performance of SMEs. *Strategic Outsourcing: An International Journal* 4(2): 131–151.
- Stratman, J. K. (2008). Facilitating offshoring with enterprise technologies: Reducing operational friction in the governance and production of services. *Journal of Operations Management* 26(2): 275–287.
- Teixeira, J. C. A. (2013). Outsourcing with long term contracts: Capital structure and product market competition effects. *Review of Quantitative Finance and Accounting* 42(2): 327–356.
- Zineldin, M.; Bredenlöv, T. (2003). Strategic alliance: Synergies and challenges: A case of strategic outsourcing relationship “SOUR”. *International Journal of Physical Distribution & Logistics Management* 33(5): 449–464.

### **Web Sources**

- \*\*\* <http://www.outsourcingadvisors.ro/wp-content/uploads/2018/10/KPMG-Romania-as-the-destination-for-SSCs-and-BPO.pdf>



# Corruption and Ease of Doing Business: Evidence from ECOWAS

Kamaldeen Ibraheem NAGERI,<sup>1\*</sup>  
Umar GUNU<sup>2</sup>

1\* Department of Banking and Finance, Al-Hikmah University, Ilorin, Nigeria  
e-mail: nagerisuccess2000@yahoo.co.uk

2 Department of Business Administration, University of Ilorin, Ilorin, Nigeria  
e-mail: umargunu@gmail.com

**Abstract:** Corruption has a major impact on growth in low-income economies, while ease of doing business has a major impact on growth in developed countries. The study empirically examines the effect of corruption on ease of doing business. The study analyses unbalanced panel data of corruption rank, corruption score, control of corruption, and inflation, together with other economic and financial institutional factors and ease of doing business score for the period of 2004–2017. Results indicate that: corruption rank, inflation, and import have negative and significant effect on ease of doing business; corruption score, control of corruption, lending rate spread, and education (skill level) have positive and significant effect on ease of doing business; gross capital formation and population have insignificant negative effect on ease of doing business; export and gross domestic product have insignificant positive effect on ease of doing business. The random effect model is a consistent and most efficient model, indicating common mean value for ease of doing business for the dataset. The study recommends improved corruption scores, control of corruption, and ranks to encourage ease of doing business through monetary policy and infrastructural facilities.

**Keywords:** ease of doing business, corruption, panel data, ECOWAS

**JEL Classification:** C23, D73, F42, M13

## 1. Introduction

Ease of doing business often has major impact on growth in developed countries, while corruption often has major impact on growth in low-income economies (Sunkanmi and Isola, 2014; Mongay and Filipescu, 2012). The National Bureau of Statistics (2017) reports that nearly one-third of Nigerians paid or were requested to

pay a bribe when they had contact with public officials between June 2015 and May 2016. Anoruo and Braha, (2005) identify two views on the impact of corruption: the first one is that corruption is beneficial (aids the process of project approval efficiently), and the second one is that corruption is detrimental (increases the cost of business, induces uncertainty) to the economy. Therefore, corruption in low-income economies has attracted substantial attention among practitioners and academia as a result of its implication on economies.

Empirical investigation and analysis of corruption and ease of doing business are done independently, but there exist few studies on the effect of corruption on ease of doing business. Bribery as an indicator of corruption leads to infrastructural deficiency (Kenny, 2009); the analysis of corruption effects on investment growth indicates inconsistent findings across regions (Asiedu and Freeman, 2009). Ali and Isse (2003) opined that identifying the determinants of corruption will assist in the formulation of policies to reduce and check the negative effects of corruption. In the presence of laws and policies that make it extremely difficult for corrupt practices, in order to carry out international business, citizens resort to the “black market” to evade the legal system and transact business (Mongay and Filipescu, 2012). Thus, literature requires the assessment of the effects of corruption on ease of doing business in order not to promote the practice of corruption and not to make doing business more difficult for corporations.

Ease of doing business rankings attract high foreign direct investments (Jayasuriya, 2011), but Corcoran and Gillanders (2014) provide evidence that this effect is determined by the trading across border component of the ease of doing business. According to the Corruption Perception Index (CPI) report of Transparency International (TI) in 2016, the West African average corruption score was 31.7, marginally higher than the average sub-Saharan African average corruption score of 31. The West African average corruption score includes Cape Verde, which was the second best-rated African country, but thirteen West African countries were in the bottom half of the table and six were in the last quarter. Seven countries declined in the ranking compared to 2015 such as Mauritania and Ghana going down 30 and 16 places respectively. Corruption has always been at the heart of debates, campaigns, and elections in West Africa because it is a major problem in the sub-region. Therefore, since there is an agreement between West African states to facilitate and ease trading across the borders of member states, it is appropriate to examine corruption and ease of doing business in the sub-region.

Therefore, the objective of this study is to empirically examine the effect of corruption on ease of doing business. The existing arguments in the literature were taken into consideration, while data on corruption and ease of doing business were obtained from Transparency International and the World Bank Group for the sixteen (16) West African countries, which are: Benin, Burkina Faso, Cape Verde, Cote d’Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Mauritania,

Niger, Nigeria, Senegal, Sierra-Leone, and Togo. Mauritania is not a member of the Economic Community of West African States (ECOWAS) as the country withdrew her membership in 2000, but an Economic Partnership Agreement (EPA) signed with the European Union (EU) and flagged off in 2004 included Mauritania in the agreement, which was to establish a free trade area between Europe and West Africa (ECOWAS + Mauritania) in accordance with Article XXIV of the General Agreement on Tariffs and Trade (GATT).

Although studies have been conducted on the two main variables of this paper inclusive of other variables, this study bridged the literature gap by being the first to examine the impact of corruption in the presence of economic and financial institutional factors. The ease of doing business by entrepreneurs and corporations is determined by how friendly and favourable is the business and the economic environment. The existence of economic uncertainty and unfriendly access to financial resources in time of need will make doing business difficult and will in turn negatively affect the inflow of investment.

The rest of this study covers the literature review in section two, developing and testing the data (methodology) in section three, and the interpretation and explanation of the result in section four. The implications of the result for theory and practice provide the background for the conclusion and recommendation in section five.

## **2. Literature Review**

Evaluation of the ease of doing business is essential for managers because it provides a yardstick for the measure of risks and set-up costs (Mongay and Filipescu, 2012). Availability of good institutions is an indicator of economic freedom; geography, market size, and labour costs are also determinants of the inward flow of foreign direct investment and its magnitude (Júlio, Pinheiro-Alves, and Tavares, 2013). The ease of doing business score, index, and ranking are provided by the World Bank for 264 countries for the year 2017. For instance, 119 economies of the world carried out 264 business reforms in 2017 in order to encourage investment, reduce unemployment, and increase competition. This amounts to 3,188 business reforms between 2003 and 2018 for ease of doing business for domestic small and medium enterprises around the world (World Bank, 2018).

The reform distribution shows that developing countries introduced 206 reforms (78% of the total reforms), sub-Saharan Africa achieved a second consecutive annual record with 38 reforms (14%), and South Asia introduced a record of 20 reforms (8%). Improving access to credit and registration of business were the major focus of these reforms (38 reforms each), while 33 of the reforms focused on facilitating cross-border trade. Based on reforms undertaken, Nigeria was – for

the first time in 2018 – among the first 10 reformers including El Salvador, India, Malawi, Thailand, Brunei Darussalam (for a second consecutive year), Kosovo, Uzbekistan, Zambia, and Djibouti. 186 countries out of the 190 monitored by the World Bank introduced business reforms in the period of 2003–2018, with 626 reforms targeted at easing requirements for starting a business.

There is a direct connection between corruption and the rent-seeking attitude of individuals in positions of administrative leadership or authority (Shleifer and Vishny, 1993; Jain, 2001; Hillman, 2013). When higher rents are connected with abuse of position of administrative leadership or authority, the total illegal disbursements and penalties associated with such abuse of power lead to corruption (Mongay and Filipescu, 2012). Mongay and Filipescu (2012) posited that the roles of the government as well as historical and geographical factors are the main elements that are important in the study of corruption. Corruption negatively affects cross-border investment and consequently reduces the volume of foreign direct investment in such regions (Smarzynska and Wei, 2002; Júlio, Pinheiro-Alves, and Tavares, 2013).

The size and scope of the government institutions and organizations to promote bribe incites and positively affects corruption (Calderon, Alvarez-Arce, and Mayoral, 2009; Doucouliagos and Ulubasoglu, 2008), while geographical factors can mitigate against corruption (Goel and Nelson, 2010). The absence or low level of corruption in developed countries encourages innovation, and the citizens becomes successful entrepreneurs, while developing countries experience growth through small business entrepreneurs as a result of the high level of corruption which discourages the establishment of big corporations (Mitchell and Campbell, 2009).

Theoretically, the rent-seeking theory was one of the various economic instruments that model corruption. Rent seeking as a theory was developed by Tullock (1967), who explained the effects of rent seeking and lobbying on public policy. Rent refers to the divisions of income such as profit and wage. Similar studies, such as Smith (1981), Buchanan (1980), Krueger (1974), or Posner (1975), do not provide a comprehensive analytical framework for explaining the social costs of lobbying. Rent seeking has shown that lobbying activities using transfers of resources encourage the diversion of such resources away from win-win activities and towards zero profits or even losses, which lead to social costs. The existence of positive opportunity costs of the transfer elsewhere in the economy gives rise to the social costs with respect to engaging in win-win activities. The rent seeking theory does not denounce traditional profit seeking or entrepreneurship in the competitive model. Profit seeking is productive as it creates values, such as new products, allocation of resources for optimal uses, etc., while rent seeking is non-productive as it extinguishes through wastage of valuable resources.

The low costs of rent seeking in relation to the gains is the clear paradox of Tullock (1967): rent seekers in need of favours do bribe administrators at a cost

lower than the value of the favour. Critics of the concept point out that, in practice, there may be difficulties distinguishing between beneficial profit seeking and detrimental rent seeking. This is because the rent seeking theory is basically indifference towards corruption as a form of rent seeking (Lambdsdorff, 2002).

There is a vast number of empirical studies on the effects of corruption on economic indicators such as economic growth, foreign direct investment, capital market, and ease of doing business (Anoruo and Braha, 2015; Omodero, 2019; Karama, 2014; Bonga and Mahuni, 2018; Mongay and Filipescu, 2012; Nageri, Nageri, and Amin, 2015; Bounoua and Matallah, 2014). Findings of the studies are inconclusive, and the debate on the impact of corruption still rages on. This study is a contribution to the debate in the literature from the West African perspective. Corruption constitutes an impediment for investment by companies from less corrupt countries in a corrupt country, while corruption is not an impediment to investment for multinational companies from corrupt countries in similarly corrupt countries (Wei, 2000; Wu, 2006).

The study of Nageri, Nageri, and Amin (2015) used vector error correction mechanism to examine the joint impact of corruption and capital market on economic growth; findings suggest that there is short-run gain of corruption but a long-term pain. Omodero (2019) used multiple OLS regression to investigate the effect of corruption on foreign direct investment, and findings suggest the need to establish a strong institutional and legal system to fight the prevailing negative impact of corruption. Quazi, Vemuri, and Soliman (2014) studied the impact of corruption on FDI in 53 African countries from 1995 to 2012 using the generalized method of moments and concluded that corruption hastened foreign direct investment inflows in Africa.

Klapper, Laeven, and Rajan (2006) and Bruhn (2011) find that reduced entry cost led to increase in registered local businesses in Mexico and a number of new firms, while higher entry cost led to reduction in total factor productivity (Barseghyan 2008). Corcoran and Gillanders (2014) found that openness, the size of the domestic market, trade costs, and gross domestic product are significant determinants of FDI, while trading across borders as a component of ease of doing business is the most naturally attractive component.

Bonga and Mahuni (2018) assessed the impact of ease of doing business and corruption on the economic growth for Africa Free Trade Zones using panel data analysis and found that corruption and ease of doing business had significant impact on the bloc's growth, with prevailing individual differences of the countries. Gasanova, Medvedev, and Komotskiy (2017) investigated the impact of corruption on FDI inflows, and their findings suggest that the high level of corruption in the countries and unfavourable economic environment negatively affect FDI inflows.

### 3. Methodology

Multiple regression technique was used for this study, using the sample period of 2004–2017. The data was acquired from the World Bank indicator and Transparency International for West African countries. The period was influenced by the fact that the data for ease of doing business were recorded from the year 2004 onwards, while the other explanatory variable data are available up to 2017 as at the time of conducting this research. The panel data analysis of the fixed and random effect model was used to estimate the parameters, and the most efficient model was selected after the unit root test was conducted on the data to avoid bogus result.

#### 3.1 Model Specification

The model used for this research, in its functional form, is expressed as:

$$EDB = F(CR, COC, INF, LRS, EDU, GCF, IMP, EXP, GDP, POP) \quad (3.1)$$

$$EDB = F(CS, COC, INF, LRS, EDU, GCF, IMP, EXP, GDP, POP), \quad (3.2)$$

where EDB is Ease of doing business score, CR is Corruption rank, CS is Corruption score, COC is Control of corruption, INF is Inflation rate, LRS is Lending rate spread, EDU is Education (skill level), GCF is Gross capital formation, IMP is Import, EXP is Export, GDP is Gross domestic product, and POP is Population.

The econometric form is written as:

$$EDB_{it} = \beta_1 + \beta_2 CR_{it} + \beta_3 COC_{it} + \beta_4 INF_{it} + \beta_5 LRS_{it} + \beta_6 EDU_{it} + \beta_7 GCF_{it} + \beta_8 IMP_{it} + \beta_9 EXP_{it} + \beta_{10} GDP_{it} + \beta_{11} POP_{it} + \varepsilon_{it1} \quad (3.3)$$

$$EDB_{it} = \beta_1 + \beta_2 CS_{it} + \beta_3 COC_{it} + \beta_3 INF_{it} + \beta_4 LRS_{it} + \beta_6 EDU_{it} + \beta_7 GCF_{it} + \beta_8 IMP_{it} + \beta_9 EXP_{it} + \beta_{10} GDP_{it} + \beta_{11} POP_{it} + \varepsilon_{it2} \quad (3.4)$$

$i = 1, 2, 3, \dots, 16$  countries,  $t = 2004-2017$ ,

where  $i$  is the  $i^{\text{th}}$  country and  $t$  is the period for the variables defined above.

The employed quantitative tools of data analysis are the panel data unit root test, fixed and random model, and the Hausman test to determine the most efficient estimate between the fixed and random effect models. *Table 1* consists of the variables used in the study, the description of the variables, and the source of the data used as proxy for the variables.



**Table 1.** *Description of variables*

<b>Variables</b>	<b>Description</b>	<b>Source</b>
EDB	Ease of Doing Business Score: the regulatory performance score of the indicators of ease of doing business in a country. The score ranges from 0 (worst regulatory performance) to 100 (best regulatory performance).	WB: Doing Business
CR	Corruption Rank: the least relative corruption position of a particular country among other countries evaluated during the period by the corruption perception index. The higher the rank, the higher the perceived corruption in the country.	TI: Corruption Perception Index
CS	Corruption Score: the corruption perception index score of a particular country ranges from 0 (very corrupt) to 100 (very clean).	TI: Corruption Perception Index
COC	Control of Corruption: the estimate of a country's score of the aggregate indicator of private gain and interest acquired through public power and elites in forms of petty and grand corruption. It ranges from approximately -2.5 (bad practice of corruption control) to 2.5 (best practice of corruption control).	WB: Worldwide Governance Indicators
INF	Inflation: annual percentage change in the cost of the basket of goods and services to an average consumer at specified interval, consumer prices (annual %).	WB: World Development Indicators
LRS	Lending Rate Spread: it is the interest rate charged by banks on loans to private sector customers, deducting interest rate paid by commercial or similar banks for demand, time, or savings deposits (lending rate minus deposit rate, %).	WB: World Development Indicators
EDU	Education: the expected years of schooling as a measure of skill level.	UNDP: Human Development Report
GCF	Gross Capital Formation: the additional disbursements to the fixed assets of the economy plus net changes in the level of inventories as a percentage of Gross Domestic Product (GDP).	WB: World Development Indicators

Variables	Description	Source
IMP	Imports of Goods and Services: the worth of goods and services received by a country from the rest of the world (minus employees' compensation and investment income) as a percentage of GDP.	WB: World Development Indicators
EXP	Exports of Goods and Services: the worth of all goods and services provided by a country to the rest of the world (minus investment income and employees' compensation) as percentage of GDP.	WB: World Development Indicators
GDP	Gross Domestic Product Growth: the yearly percentage growth of GDP at market prices based on constant local currency.	WB: World Development Indicators
POP	Population Density: the half-year population divided by land area in square kilometres of a country (people per square metre kilometre of land area).	WB: World Development Indicators

Notes: WB: World Bank, TI: Transparency International, UNDP: United Nations Development Programme

## 4. Analysis and Presentation of Results

This section provides the results and the interpretation of the results conducted on the data. Results were presented in tabular forms and were followed by interpretation.

*Table 2* reveals positive mean for all the variables except control of corruption and that the standard deviation of EDB, CS, COC, EXP, LRS, INF, EDU, GCF, and GDP are low while that of CR, IMP, and POP are high. The Jarque-Bera statistics, which combines skewness and kurtosis as asymptotic normality of the variables, indicates a p-value of less than 5% except for EDU.

*Table 3* shows the unit root test results for the variables used in the study. Results specify that all the variables except CS, LRS, EDU, and GDP have unit root at levels and, therefore, non-stationary with all the methods of unit root tests. The first difference  $\{I(1)\}$  of all the variables indicates the absence of unit root with the p-value of the unit root methods (Levin, Lin, Chu, Im, Pesaran, and Chin, augmented Dickey–Fuller, and Philips Perron) less than 5%. This indicates that the data at first order (first difference) are suitable for regression analysis.

**Table 2.** Descriptive statistics of EDB, CR, CS, COC, IMF, LRS, EDU, GCF, IMP, EXP, GDP, and POP

Stat	Mean	Medium	Maximum	Minimum	Std. Dev.	Skewness	kurtosis	J. Bera	Prob
Var	46.57938	46.28500	65.14000	33.53000	5.879852	0.564483	3.366894	7515604	0.023335
CR	111.1779	115.5000	173.0000	38.00000	32.85324	-0.292394	2.230942	8.089696	0.017512
CS	30.70192	29.00000	60.00000	16.00000	8.799297	1.0139394	4.252521	51.04810	0.000000
COC	-0.632217	-0.695129	0.950176	-1.562825	0.508181	1.302294	5.050376	102.5539	0.000000
INF	5.517912	4.191818	34.69527	-3.099781	5.820965	1.562956	6.751201	218.5593	0.000000
LRS	3.372510	-1.350000	17.58333	-3.601667	6.951948	0.479329	1.574059	22.51154	0.000013
EDU	8.938393	8.900000	12.80000	3.400000	2.010455	-0.257450	3.064321	2.513089	0.284636
GCF	23.81277	21.99347	73.77735	4.703723	10.97929	1.409891	5.739419	139.1003	0.000000
IMP	46.97783	39.68233	236.3910	10.79023	30.43905	3.450350	19.14993	2878.771	0.000000
EXP	28.54236	25.54409	82.44624	9.218110	11.81869	1.226387	5.260829	103.8562	0.000000
GDP	4.625790	4.818597	20.71577	-20.59877	3.817236	-0.699207	12.65969	889.1413	0.000000
POP	77.70236	67.75313	209.5878	2.952191	51.94968	0.561799	2.641812	12.98054	0.001518

Source: authors' computation, 2019

Table 3. Panel unit root test result of EDB, CR, CS, IMP, EXP, POP, INF, LRS, EDU, GCF, GDP  $I(0)$  &  $I(1)$ 

Variable	Methods	Stat	Prob.	Variable	Methods	Stat	Prob.
<b>EDB</b>	Levin, Lin and Chu	-2.68047	0.0037	<b>D(EDB)</b>	Levin, Lin and Chu	-12.9524	0.0000
	Im, Pesaran and Shin	0.39552	0.6538		Im, Pesaran and Shin	-3.99391	0.0000
	ADF	38.0844	0.2121		ADF	73.0287	0.0000
	PP	41.7931	0.1152		PP	81.6859	0.0000
<b>CR</b>	Levin, Lin and Chu	-2.81267	0.0025	<b>D(CR)</b>	Levin, Lin and Chu	-11.5966	0.0000
	Im, Pesaran and Shin	-1.94252	0.0260		Im, Pesaran and Shin	-7.99186	0.0000
	ADF	50.9576	0.0180		ADF	121.410	0.0000
	PP	50.6424	0.0193		PP	121.551	0.0000
<b>CS</b>	Levin, Lin and Chu	-1.57693	0.0574	<b>D(CS)</b>	Levin, Lin and Chu	-11.7435	0.0000
	Im, Pesaran and Shin	0.42980	0.6663		Im, Pesaran and Shin	-8.23627	0.0000
	ADF	29.2002	0.6090		ADF	122.612	0.0000
	PP	36.3782	0.2720		PP	141.758	0.0000
<b>COC</b>	Levin, Lin and Chu	-4.12220	0.0000	<b>D(COC)</b>	Levin, Lin and Chu	-12.3933	0.0000
	Im, Pesaran and Shin	-2.64871	0.0040		Im, Pesaran and Shin	-8.94997	0.0000
	ADF	59.7276	0.0021		ADF	127.661	0.0000
	PP	73.2937	0.0000		PP	127.566	0.0000
<b>INF</b>	Levin, Lin and Chu	-1.51288	0.0652	<b>D(INF)</b>	Levin, Lin and Chu	-13.9490	0.0000
	Im, Pesaran and Shin	-3.27640	0.0005		Im, Pesaran and Shin	-13.1436	0.0000
	ADF	78.3181	0.0000		ADF	184.514	0.0000
	PP	95.8223	0.0000		PP	282.349	0.0000
<b>LRS</b>	Levin, Lin and Chu	-10.4391	0.0000	<b>D(LRS)</b>	Levin, Lin and Chu	-10.4391	0.0000
	Im, Pesaran and Shin	-9.06440	0.0000		Im, Pesaran and Shin	-9.06440	0.0000
	ADF	122.610	0.0000		ADF	122.610	0.0000
	PP	102.008	0.0000		PP	102.008	0.0000
<b>EDU</b>	Levin, Lin and Chu	-6.65558	0.0000	<b>D(EDU)</b>	Levin, Lin and Chu	-9.48099	0.0000
	Im, Pesaran and Shin	-3.10160	0.0010		Im, Pesaran and Shin	-7.33937	0.0000
	ADF	71.6259	0.0001		ADF	108.126	0.0000
	PP	100.053	0.0000		PP	107.445	0.0000

Variable	Methods	Stat	Prob.	Variable	Methods	Stat	Prob.
<b>GCF</b>	Levin, Lin and Chu	-4.07039	0.0000	<b>D(GCF)</b>	Levin, Lin and Chu	-13.2652	0.0000
	Im, Pesaran and Shin	-0.88746	0.1874		Im, Pesaran and Shin	-8.93124	0.0000
	ADF	45.4128	0.0585		ADF	133.446	0.0000
	PP	41.2847	0.1259		PP	157.543	0.0000
<b>IMP</b>	Levin, Lin and Chu	-3.65489	0.0001	<b>D(IMP)</b>	Levin, Lin and Chu	-14.0947	0.0000
	Im, Pesaran and Shin	-1.37219	0.0850		Im, Pesaran and Shin	-9.89985	0.0000
	ADF	44.2697	0.0730		ADF	141.005	0.0000
	PP	38.8173	0.1894		PP	167.624	0.0000
<b>EXP</b>	Levin, Lin and Chu	-5.53189	0.0000	<b>D(EXP)</b>	Levin, Lin and Chu	-11.8158	0.0000
	Im, Pesaran and Shin	-2.95242	0.0016		Im, Pesaran and Shin	-8.78133	0.0000
	ADF	58.1177	0.0032		ADF	126.999	0.0000
	PP	35.0091	0.3272		PP	154.092	0.0000
<b>GDP</b>	Levin, Lin and Chu	-11.2382	0.0000	<b>D(GDP)</b>	Levin, Lin and Chu	-19.0484	0.0000
	Im, Pesaran and Shin	-6.70534	0.0000		Im, Pesaran and Shin	-13.1797	0.0000
	ADF	104.796	0.0000		ADF	179.387	0.0000
	PP	85.3840	0.0000		PP	250.245	0.0000
<b>POP</b>	Levin, Lin and Chu	13.4384	1.0000	<b>D(POP)</b>	Levin, Lin and Chu	-4.58125	0.0000
	Im, Pesaran and Shin	26.6356	1.0000		Im, Pesaran and Shin	-4.38964	0.0000
	ADF	3.32599	1.0000		ADF	84.6547	0.0000
	PP	2.02605	1.0000		PP	104.261	0.0000

Source: authors' computation, 2019

**Table 4.** Panel fixed effect and random effect models result for corruption rank

Panel Fixed Effect Model Dependent Variable: D(EDB)			Panel Random Effect Model Dependent Variable: D(EDB)		
Variable	Coefficient	Prob.	Variable	Coefficient	Prob.
C	1.074945	0.8950	C	36.35647	0.0000
D(CR)	0.003455	0.8914	D(CR)	-0.043875	0.0279
D(COC)	2.159644	0.2021	D(COC)	4.005950	0.0019
D(INF)	-0.167781	0.0865	D(INF)	-0.226735	0.0159
D(LRS)	0.917610	0.0003	D(LRS)	0.619732	0.0000
D(EDU)	3.300663	0.0000	D(EDU)	2.268305	0.0000
D(GCF)	-0.077801	0.1764	D(GCF)	-0.066465	0.1650
D(IMP)	-0.024431	0.6284	D(IMP)	-0.088026	0.0175
D(EXP)	0.068965	0.1897	D(EXP)	0.027979	0.5073
D(GDP)	0.083660	0.1238	D(GDP)	0.058286	0.2455
D(POP)	0.169032	0.0017	D(POP)	-0.011724	0.5393

Source: authors computation, 2019

The fixed effect model results in *Table 4* indicate that LRS, EDU, and POP have positive and significant impact on EDB at 5%, while INF is negatively significant at 10% level. CR, COC, EXP, and GDP are positive and insignificant, while GCF and IMP have negative and insignificant effect on EDB. The random effect model indicates that CR, INF, and IMP have significant negative impact on EDB, while COC, LRS, and EDU have significant positive impact on EDB. GCF and POP are negative and insignificant to EDB, but EXP and GDP are positive and insignificant to EDB.

**Table 5.** Hausman test results for corruption rank

Dependent Variable: D(EDB) Independent Variables: D(CR), D(INF), D(LSR), D(EDU), D(GCF), D(IMP), D(EXP), D(GDP), D(POP)		
Test Summary	Chi-Sq. Stat.	Prob.
Cross-section random	8.629869	0.5676

Source: authors' computation, 2019

*Table 5* shows the Hausman test results aiming to reveal the more efficient and consistent estimator between the fixed effect model and the random effect model for the corruption rank models. Results indicate that the null hypothesis (the random effect model is appropriate) cannot be rejected, as shown by the fact

that the p-Value of 0.5676 is more than 5%. This means that the random effect estimator is the consistent and most efficient model. This indicates that there is a common mean value for the intercept (EDB); in other words, there is a common mean value for EDB in West African countries.

**Table 6.** Panel fixed effect and random effect model results for corruption score

Panel Fixed Effect Model Dependent Variable: D(EDB)			Panel Random Effect Model Dependent Variable: D(EDB)		
Variable	Coefficient	Prob.	Variable	Coefficient	Prob.
C	5.128068	0.3933	C	27.69343	0.0000
D(CS)	0.131619	0.0952	D(CS)	0.309652	0.0000
D(COC)	2.259777	0.1749	D(COC)	3.113554	0.0121
D(INF)	-0.145665	0.1251	D(INF)	-0.200097	0.0286
D(LRS)	0.837552	0.0006	D(LRS)	0.592789	0.0000
D(EDU)	2.869481	0.0000	D(EDU)	1.733873	0.0001
D(GCF)	-0.091323	0.1067	D(GCF)	-0.075437	0.1094
D(IMP)	-0.023064	0.6420	D(IMP)	-0.090906	0.0126
D(EXP)	0.026293	0.6274	D(EXP)	-0.017041	0.6889
D(GDP)	0.085281	0.1107	D(GDP)	0.067564	0.1717
D(POP)	0.140176	0.0104	D(POP)	-0.013099	0.4832

Source: authors' computation, 2019

Table 6 depicts the fixed and the random effect model results for corruption score, indicating that LRS and EDU are positive and statistically significant to EDB and GCF is negative and significant at 10% to EDB. In the fixed effect model, CS is positive and significant at 10%, POP is positive and significant at 5%, while COC is positive and insignificant to EDB. INF and IMP are negative and insignificant to EDB. INF and IMP are negatively insignificant to EDB. In the random effect model, CS and COC are positively significant to EDB, while INF and IMP are negatively significant to EDB. EXP and POP are negatively insignificant but GDP is positively insignificant to EDB.

This shows that increase in corruption score and control of corruption relative to other countries leads to increase in ease of doing business, meaning that the higher the corruption score and control of corruption (indicating reduced corruption practices), the better ease of doing business in West African countries.

**Table 7.** Hausman test result for corruption score

Dependent Variable: D(EDB) Independent Variables: D(CS), D(INF), D(LSR), D(EDU), D(GCF), D(IMP), D(EXP), D(GDP), D(POP)		
Test Summary	Chi-Sq. Stat.	Prob.
Cross-section random	7.433049	0.6840

Source: authors' computation, 2019

Table 7 shows the Hausman test results aiming to reveal the more efficient and consistent estimator between the fixed effect model and the random effect model for the corruption score models. Results indicate that the null hypothesis (the random effect model is appropriate) cannot be rejected. This means that the random effect estimator is the consistent and more efficient model. This indicates that there is a common mean value for the intercept (EDB); in other words, there is a common mean value for EDB in West African countries.

In summary, corruption rank has significant negative effect on ease of doing business, while corruption score and control of corruption have a significantly positive effect on ease of doing business. This simply means that the more countries are perceived to be corrupt among other countries, the less easy is to start businesses in such countries, while the higher the perception score and control of corruption a country has, the easier doing business in such countries. This finding is in tandem with the findings of Mongay and Filipescu (2012), Nageri, Nageri, and Amin (2015), Bounoua and Matallah (2014), and Omodero (2019) but in disagreement with the findings of Gutierrez (2015), Quazi et al. (2014), and Bayar and Alakbarov (2016).

## 5. Summary, Conclusions, and Recommendations

This article analyses the effects of corruption as well as the economic and financial institutional factors on ease of doing business. It investigates the impact of corruption in the presence of gross domestic product, inflation, lending rate spread, education (skill level), gross capital formation, import, export, and population in terms of promoting ease of doing business. West Africa was used as an illustration; the methodology can be applied to any specific country to achieve country-specific results. The dataset comprises the sixteen (16) West African countries, covering the period of 2004–2017 due to data availability.

Unbalanced panel data analysis was employed as a result of non-availability of some data in the datasets. Panel data unit root test was conducted, and the first difference of the dataset was found to have no unit root and thus was used for the analysis. The fixed effect and random effect models were estimated, and the



most efficient model was found to be the random effect model using the Hausman test. Results indicate that the dataset has a common mean, and thus results are applicable to the countries in the dataset.

Results indicate that corruption rank, inflation, and import have negative and significant effect on ease of doing business, while population, gross capital formation, and export have negative but insignificant effect on ease of doing business. Secondly, corruption score, control of corruption, lending rate spread, and education (skill level) all have positive and significant effect on ease of doing business, while export and gross domestic product have negative and insignificant effect on ease of doing business.

The study concludes that perceived bad corruption rank negatively affects ease of doing business, but corruption score and control of corruption positively affect ease of doing business in the presence of inflation, education (skill level), gross domestic product, lending rate spread, export, import, population, and gross capital formation. Lending rate spread and education (skill level) positively and significantly affect ease of doing business, while inflation and import negatively and significantly affect ease of doing business. Export and gross domestic product are positive but insignificant, while population and gross capital formation are negative and insignificant; however, this does not imply that no action needs to be taken but urges the formulation of policies to discourage corruption, high inflation, and importation and encourages increase in local production through gross domestic product, control of population, and gross capital formation in order to positively stimulate exportation and start-up businesses.

The study recommends that countries need to improve their corruption scores to reduce their ranking in the list of countries through control of corruption in order to encourage ease of doing business. Policy in ECOWAS countries must be effective to reduce importation and inflation, while gross domestic product should be encouraged through improved infrastructural facilities, such as investment in power supply or improved road networks, in order to encourage the establishment of new businesses. Despite the insignificantly positive and negative impact of export, gross capital formation, and population, they should not be left unaddressed. Hence, gross capital formation should be encouraged to ease doing business and production of excess to encourage exportation, while population growth should be controlled.

The study demonstrates the joint impact of corruption score, corruption rank, and control of corruption with economic and financial institutional factors as a means to promote ease of doing business, and it uses a methodology that, for a given country, recommends several possible economic and financial institutional reforms regarding their impact on ease of doing business.

## References

- Ali, A. M.; Isse, H. S. (2003). Determinants of economic corruption: A cross-country comparison. *Cato Journal* 22(3): 449–469. (<https://object.cato.org/sites/cato.org/files/serials/files/cato-journal/2002/1/cj22n3-4.pdf>).
- Anoruo, E.; Braha, H. (2005). Corruption and economic growth: The African experience. *Journal of Sustainable Development in Africa* 7(1): 43–55. ([www.ce.vizja.pl/en/download-pdf/volume/9/issue/1/id/386](http://www.ce.vizja.pl/en/download-pdf/volume/9/issue/1/id/386)).
- Asiedu, E.; Freeman, J. (2009). The effect of corruption on investment growth: Evidence from firms in Latin America, sub-Saharan Africa, and Transition Countries. *Review of Development Economics* 13(2): 200–14. (<https://doi.org/10.1111/j.1467-9361.2009.00507.x>).
- Barseghyan, L. (2008). Entry costs and cross-country differences in productivity and output. *Journal of Economic Growth* 13(2): 145–167. (<https://dx.doi.org/10.1007/s10887-008-9026-6>).
- Bayar, Y.; Alakbarov, N. (2016). Corruption and foreign direct investment inflows in emerging market economies. *ECOFORUM* 5(2): 303–308. ([www.ecoforumjournal.ro/index.php/eco/article/download/431/270](http://www.ecoforumjournal.ro/index.php/eco/article/download/431/270)).
- Bonga, W. G.; Mahuni, K. (2018). Assessing the impact of ease of doing business and corruption on economic growth for Africa Free Trade Zone (AFTZ) member states. *MPRA Paper* 88932, University Library of Munich, Germany.
- Bounoua, C.; Matallah, S. (2014). Corruption and economic growth: Empirical evidence from Algeria. *International Journal of Innovation and Applied Studies* 8(3): 927–946. (<https://pdfs.semanticscholar.org/d959/635b9911e3c2591b4300e91aa7922f78febf.pdf>).
- Bruhn, M. (2011). License to sell: The effect of business registration reform on entrepreneurial activity in Mexico. *The Review of Economics and Statistics* 93(1): 382–386. ([https://dx.doi.org/10.1162/REST\\_a\\_00059](https://dx.doi.org/10.1162/REST_a_00059)).
- Buchanan, J. (1980). Rent seeking and profit seeking. In: Buchanan, J. M.; Tollison, R. D.; Tullock, G. (eds.), *Towards a theory of the rent-seeking society*. College Station, TX: Texas A&M Press. 3–15. Reprinted in R. D. Congleton; Hillman, A. L.; Konrad, K. A. (eds.). (2008). *Forty years of research on rent seeking 1—The theory of rent seeking*. Heidelberg: Springer. 55–67.
- Calderon, R.; Alvarez-Arce, J.; Mayoral, S. (2009). Corporation as a crucial ally against corruption. *Journal of Business Ethics* 87: 319–32. (<http://dx.doi.org/10.1007/s10551-008-9796-y>).
- Doucouliaagos, H.; Ulubasoglu, M. A. (2008). Democracy and economic growth: A meta-analysis. *American Journal of Political Science* 52(1): 61–83. (<https://dx.doi.org/10.1111/j.1540-5907.2007.00299.x>).

- Gasanova, A.; Medvedev, A. N.; Komotskiy, E. I. (2017). The assessment of corruption impact on the inflow of foreign direct investment. *AIP Conference Proceedings* 1836. (<https://dx.doi.org/10.1063/1.4981951>).
- Goel, R. K.; Nelson, M. A. (2010). Causes of corruption: History, geography and government. *Journal of Policy Modeling* 32(4): 433–447. (<https://dx.doi.org/10.1016/j.jpolmod.2010.05.004>).
- Gutierrez, K. P. (2015). The effect of corruption on FDI in Argentina: Has corruption acted as a negative determinant discouraging FDI? *Universitat Autònoma de Barcelona*. 1–29. (<https://core.ac.uk/download/pdf/78527856.pdf>).
- Hillman, A. L. (2013). Rent seeking. In: Reksulak, M.; Razzolini, L.; Shughart, W. F. I. I. (eds.), *The Elgar companion to public choice*. 2<sup>nd</sup> ed.. Cheltenham: Edward Elgar. 307–330.
- Jain, A. K. (2001). Corruption: A review. *Journal of Economic Surveys* 15(1): 71–121. (<https://dx.doi.org/10.1111/1467-6419.00133>).
- Jayasuriya, D. (2011). Improvements in the World Bank’s ease of doing business rankings: Do they translate into greater foreign direct investment inflows? *Development Policy Centre Discussion Paper* 8. (<http://dx.doi.org/10.2139/ssrn.2040543>).
- Júlio, P.; Pinheiro-Alves, R.; Tavares, J. (2013). Foreign direct investment and institutional reform: Evidence and an application to Portugal. *Portuguese Economic Journal* 12(3): 215–250. (<http://dx.doi.org/10.1007/s10258-013-0093-z>).
- Karama, D. (2014). Ease of doing business: Emphasis on corruption and rule of law. *MPRA Paper* 58662. University Library of Munich, Germany.
- Kenny, C. (2009). Measuring corruption in infrastructure: Evidence from transition and developing countries. *Journal of Development Studies* 45(3): 314–332. (<https://dx.doi.org/10.1080/00220380802265066>).
- Klapper, L.; Laeven, L.; Rajan, R. (2006). Entry regulation as a barrier to entrepreneurship. *Journal of Financial Economics* 82(3): 591–629. (<http://dx.doi.org/10.1016/j.jfineco.2005.09.006>).
- Krueger, A. O. (1974). The political economy of the rent-seeking society. *American Economic Review* 137(2): 333–338. (<http://cameroneconomics.com/kreuger%201974.pdf>).
- Lambsdorff, J. G. (2002). Corruption and rent-seeking. *Public Choice* 113: 97–125. (<https://dx.doi.org/10.1023/A:1020320327526>).
- Mitchell, D. T.; Campbell, N. D. (2009). Corruption’s effect on business venturing within the United States. *American Journal of Economics & Sociology* 68(5): 1135–1152. (<https://dx.doi.org/10.1111/j.1536-7150.2009.00665.x>).
- Mongay, J.; Filipescu, D. A. (2012). Are corruption and ease of doing business correlated? An analysis of 172 nations. In: Harris, S.; Kuivalainen, O.; Stoyanova, V. (eds.), *International business*. The Academy of International Business. Palgrave Macmillan, London. ([https://link.springer.com/chapter/10.1057/9781137007742\\_2](https://link.springer.com/chapter/10.1057/9781137007742_2)).

- Nageri, K. I.; Nageri, S. I.; Amin, A. (2015). The joint impact of stock market and corruption on economic growth and development in Nigeria: Evidence from cointegration and VECM analysis. *Serbian Journal of Management* 10(2): 189–200. (<https://scindeks-clanci.ceon.rs/data/pdf/1452-4864/2015/1452-48641502189N.pdf>).
- National Bureau of Statistics (2017). *National corruption survey: Corruption in Nigeria – Bribery as experienced by the population*. Vol. 2.
- Omodero, C. O. (2019). Effect of corruption on foreign direct investment inflows in Nigeria. *Studia Universitatis “Vasile Goldis” Arad. Economics Series* 29: 54–66.
- Posner, R. A. (1975). The social cost of monopoly and regulation. *Journal of Political Economy* 83: 807–827. Reprinted in: R. D. Congleton, Hillman, A. L.; Konrad, K. A. (eds.). (2008). *Forty years of research on rent seeking 2—Applications: Rent seeking in practice*. Heidelberg: Springer. 45–65.
- Quazi, R.; Vemuri, V.; Soliman, M. (2014). Impact of corruption on foreign direct investment in Africa. *International Business Research* 7(4): 1–10. (<http://dx.doi.org/10.5539/ibr.v7n4p1>).
- Shleifer, A.; Vishny, R. W. (1993). Corruption. *Quarterly Journal of Economics* 108: 599–618. ([https://projects.iq.harvard.edu/gov2126/files/shleifer\\_and\\_vishy.pdf](https://projects.iq.harvard.edu/gov2126/files/shleifer_and_vishy.pdf)).
- Smarzynska, B. K.; Wei, S. (2002). Corruption and cross-border investment: Firm-level evidence. *Working Paper Series* 494. William Davidson Institute.
- Smith, B. C. (1981). Control in British government: A problem of accountability. *Policy Studies Journal* 9(8): 1163–1174. (<https://dx.doi.org/10.1111/j.1541-0072.1981.tb01229.x>).
- Sunkanmi, O. A.; Isola, A. L. (2014). Corruption and economic growth in Nigeria. *Journal of Economics and Sustainable Development* 5(6): 45–56. (<https://www.iiste.org/Journals/index.php/JEDS/article/view/11932>).
- The World Bank. *Doing Business*. (<http://www.doingbusiness.org/en/methodology>).
- World Development Indicators*. (<https://databank.worldbank.org/source/world-development-indicators>).
- Worldwide Governance Indicators*. (<https://datacatalog.worldbank.org/dataset/worldwide-governance-indicators>).
- Transparency International. *Corruption Perception Index*. (<https://www.transparency.org/en/cpi#>).
- Tullock, G. (1967). The welfare cost of tariffs, monopolies, and theft. *Western Economic Journal* 5: 224–232. Reprinted in: R. D. Congleton, Hillman, A. L.; Konrad, K. A. (eds.). (2008). *Forty years of research on rent seeking 2—Applications: Rent seeking in practice*. Heidelberg: Springer. 45–53.
- United Nations Development Programme. *Human Development Report*. (<http://hdr.undp.org/en/content/expected-years-schooling-children-years>).
- Wei, S. (2000). How taxing is corruption on international investors? *Review of Economics and Statistics* 82(1): 1–11. (<https://dx.doi.org/10.1162/003465300558533>).

- World Bank. (2018). *Doing business 2018: Reforming to create job*. A World Bank Group Flagship Report, 15<sup>th</sup> edition.
- Wu, S. (2006). Corruption and cross-border investment by multinational firms. *Journal of Comparative Economics* 34(4): 839–856. (<https://dx.doi.org/10.1016/j.jce.2006.08.007>).





# Ownership Structure and the Risk: Analysis of Indian Firms

Ranjita KUMARI,<sup>1</sup> Nishant KUMAR<sup>2</sup>

<sup>1</sup> Research Scholar, Department of Business Administration, University of Lucknow  
e-mail: bhu.ranjita@gmail.com

<sup>2</sup> Assistant Professor, Department of Business Administration, University of Lucknow  
e-mail: nishchalvr@gmail.com

**Abstract.** Considering the positive relationship between ownership and firm performance in the corporate finance literature, the paper aims to investigate the effect of ownership structure on the risk associated with the firm. Portfolio theories state that an investment with a high return is expected to be associated with high risk; so, it can be argued that ownership should have a positive relation with risk too. However, another explanation is that since large shareholders, such as promoters and financial institutions, have a significant stake in firms, in developing countries like India they will avoid excess risk taking, and so there should be a negative relationship between ownership and risk associated with firms. Analysing Nifty-500 companies for the period of 2006/07–2015/16, the study has found that Indian blockholders are in general risk-averse. Results also suggest that profitability and growth opportunities have negative effects on risk, which again establishes the positive association between ownership structure and profitability.

**Keywords:** promoters, institutions, beta, Nifty-500

**JEL Classification:** G32

## 1. Introduction

According to Ghysels et al. (2005), risk-return trade-off is so fundamental in financial economics that it can be described as the “first fundamental law of finance”. This means that a great performance implies great risk. Although it is prominently used in portfolio analysis, this trade-off can be applied to projects and businesses too, and a firm is a combination of many projects and businesses. Another major theory in corporate finance, the agency theory, underlines the issues related to the separation of ownership and control in the businesses. There is substantial literature that discusses the relationship between ownership and firm value, defining ownership in numerous ways. The findings may not be very

conclusive but generally support the idea that family ownership has a positive effect on firm value, while studies on institutional and managerial ownership have presented varied results. We argue that different categories of shareholders have varied goals, and they act and make decisions accordingly, which defines the prospects of the firm. Since in countries like India promoters and other blockholders are central in decision making, their acts are key to risk and the profit earned by a business. The paper intends to examine the effect of ownership variables – promoters and institutions – on the market risk associated with Indian firms by using the data of Nifty-500 companies.

The rest of the paper is organized as follows: Section 2 reviews the literature related to ownership and firm performance as well as ownership and risk and outlines the testable hypotheses. Section 3 explains the sample and methodology, Section 4 exhibits the empirical results, and Section 5 concludes.

## **2. Literature Review**

### **Ownership and Firm Performance**

Berle and Means (1932) are of the view that managers may behave irresponsibly and will enjoy free-ridership as shareholders will be diffused and lack incentives to control and monitor them. They may follow the path that will maximize their own benefits instead of welfare and the wealth maximization of the shareholders. Based on this idea, many authors strive to understand why managers behave in a particular way and how their goals could be aligned to that of the shareholders. In this endeavour, a stream in finance divided firms into owner-controlled firms and manager-controlled firms, and found that manager-controlled firms used to create less profit than owner-controlled firms. They have reasoned that since managers have less opportunity and less incentive to take risks, they do not try to maximize profit but to create a consistent growth story. In 1976, Jensen and Meckling suggested some measures to align managerial goals to those of shareholders. One of those methods is the allotment of shares to managers so that their interests could be aligned to that of other shareholders. However, at an initial stage, such research studies were generally confined to the USA only, where large corporations were evolving very swiftly. When such research studies were carried out around the world, it was found that the presence of blockholders and concentrated ownership is more common around the world.

In general, blockholders such as families, financial institutions, and governments, are present in firms' shareholding with controlling power. So, the focus shifted to how these blockholders affect the operation and performance of a firm. As far as family ownership is concerned, Anderson and Reeb (2003) found that it is



prevalent and substantial and that family firms are better than non-family firms when measured through profitability. Villalonga and Amit (2004) observed that the value of a firm is higher if the founder serves as CEO, but it is lower where the descendants serve as CEO. Further, in 2010, they found that founding families are more likely to retain control when they give the firm a competitive advantage, while an “outsider” or non-founding family will retain control when it has some private benefits of that control. Maury (2006) presented the evidence that family-controlled firms perform better than firms controlled by non-family owners in the case of Western European firms and is of the view that this could be due to lower agency costs. For Japanese firms, Saito (2008) found that when firms are run by the founders they used to trade at a premium, but when they are run by descendants the results are mixed. As far as Indian firms are concerned, Khanna and Palepu (2000b) found that well-diversified business groups, which are in general owned by families, perform better than any other group of firms in the economy.

In the case of institutional shareholding, McConnell and Servaes (1990) presented a significant positive relation between Tobin’s Q and the shares owned by institutional investors for US firms. For Japanese firms, the relation between the main bank and firm value has been found negative and non-linear by Morck et al. (2000). In his study on emerging countries, Lins (2003) found that a larger non-management blockholder’s presence is positively related to Tobin’s Q, and they also control the management to be entrenched and reduce their negative impact on the firm’s value. Based on these studies, it can be inferred that the behaviour and motivation of blockholders are very specific, and they have considerable bearing on the value and performance of the firms.

## **Risk**

Risk is the unpredictability about future returns and profitability. It helps investors decide whether to invest in a business or not. There are several ways by which unpredictability could be measured. Variations in profitability are one of those measures which have been used by Cheng (2008) and Kakani et al. (2001). McEachern (1976) used CAPM beta as their measure of risk. Many authors have applied methods using equity and market returns to calculate systematic and idiosyncratic risk. Amihud et al. (1983) calculated systematic risk as the coefficient of equity return on market return and variance of error term as the unique risk of the firm. Nguyen (2011) used the Fama and French three-factor model to calculate systematic risk, the standard deviation of the firm’s monthly stock return to calculate total risk, and standard deviation of the residuals to measure the firm-specific risk. Chen et al. (1998) measured total risk as to the standard deviation of the daily returns on the company’s stock, while unsystematic risk was measured as the standard

deviation of the residual error term. Similarly, Low (2006) used the variance of daily equity return as a measure of risk. Reliable earning is crucial for the overall performance of the firm, and unsteady earnings reflect themselves through capital market operations and specify the risk associated with the performance of a firm. On this ground, the study tried to present the possible link between ownership and market risk.

### **The Relation between Ownership and Risk**

In general, managerial literature on this topic categorizes firms into two groups – on the basis of an arbitrarily chosen cut-off point: firms controlled by owner-managers and manager-controlled firms. Mosen and Downs (1965) have a viewpoint that top managers of large firms do not intend to maximize profit but try to realize a steady growth of earnings along with steadily rising stock prices and as a result attain less variability of profits. This could be probably one of the reasons for a slower growth than if they sought to maximize profits. McEachern (1976), too, found that there is more market-related risk in the owner-managed firms. Stano (1976) has a different view, according to which, since management-controlled firms are more leveraged and the rate of return is highly volatile, growth rate is low and performance is poor. Amihud and Lev (1981) have pointed out that firms with managerial control are more inclined to indulge in diversifying mergers to reduce the risk related to their financial assets as well as the risk of their income from their job with the company. All these studies are based on agency theory, which is based on the notion that managers follow different goals than shareholders' wealth maximization. However, in the case of India, firms are run by owner-managers, and they have in general decisive control over firms, while it has been argued in the literature that in developing countries like India the problem is not to control the free-ridership of managers but to align the interests of the majority and minority shareholders (J. R. Varma, 1997).

In recent literature, Nguyen (2011) has found a positive relationship between family ownership and a firm's idiosyncratic risk, while bank ownership is negatively related. He argues that banks are risk-averse, and they choose less risky projects over risky projects with higher returns, while family firms appeared to be managed with the aim of handing it over to the next generation. Accordingly, they may be able to take on high-value-creating projects due to their longer time horizon. Cheng (2008) has found that board size and corporate performance are negatively related and argues that larger boards make many compromises before reaching a consensus, which results in less extreme decisions and less extreme performances. Jiraporn et al. (2015) argue that effective governance imposes stricter norms on managers; therefore, decisions are relatively balanced and less extreme, and there is less variability in corporate performance. They have shown

that board, ownership, and compensation are significantly negatively related to risk. The firm-level analysis of companies in the United States by John et al. (2008) reveals that bank financing and unionization are both negatively related with corporate risk taking.

Results on the relationship between ownership and risk are rather inconclusive. Since, in general, authors outlined a positive link between family ownership and firm value (Khanna and Palepu, 2000b; Anderson and Reeb, 2003; Villalonga and Amit, 2004; Maury, 2006; Saito, 2008), it is hypothesized that family firms can take more risks. In most of the companies in India, promoters have a majority stake; we hypothesize a positive relationship between promoters' shareholding and risk.

***Hypothesis 1:*** Promoters' ownership is positively related to the firm's risk.

Institutional shareholders have exhibited a mixed relationship with firm performance. They are classified into different categories by authors, so a direct comparison between the results is a tricky task; however, evidence from India is presented here. Khanna and Palepu (2000a) observed a negative effect of domestic financial institutions (DFIs) on firm performance (PQ ratio) in India, while foreign institutional investors are found to affect firm performance significantly and positively. Through a comprehensive analysis of domestic financial institutions, Amiya Sahu (2015) observed that DFIs are not good monitors. Kakani et al. (2001) presented the evidence of the significant negative impact of domestic institutional investors and shares owned by retail investors on firm performance and found a positive, although insignificant, relation with risk for Indian firms. John et al. (2008) and Nguyen (2011) have shown a negative relation between firm risk and the presence of bank finance for the US and Japan. Based on the literature, we hypothesize a negative relation between institutions' shareholding and risk for Indian firms because financial institutions are major debt providers to businesses too, and that prevents them from getting involved in risky projects.

***Hypothesis 2:*** Institutional shareholders are negatively related to the firm's risk.

### 3. Research Methodology

#### Sample and Data Sources

The sample of this analysis comprises firms listed in NSE India. Nifty-500 was taken as the sample for the study, representing around 94% of the total market capitalization of all listed firms in NSE. To increase the sample size, all firms which were part of NSE 500 during the period of analysis, that is, 2006/07–2015/16, were

also included in the sample. Since government firms are assumed to pursue other goals than profit maximization, they have been excluded from the analysis. Gupta (2005) and Boubakri et al. (2018) also pointed out that state-owned firms did not have a strong incentive to maximize efficiency, which a private owner will pursue with dedication. Thomsen and Pedersen (1996) argued that high government ownership reflects high government interventions. In the case of India, for example, one of the major goals of the Indian government is to reduce social and economic discrimination, and for that purpose government organizations are obliged to provide reservation in recruitment for marginal classes. Such policies are not mandatory for privately owned firms. Government firms get frequent bailouts from central agencies that are not available so easily for private companies. In these ways, government-owned firms are quite different from privately owned firms. Financial institutions have also been kept out from the analysis as their reporting pattern and asset structure are different from the rest of the firms. After eliminating instances that have missing data, the final sample includes 3,868 observations, representing 485 firms from 14 industries in which the manufacturing sector is prominent. All data for this study have been obtained from the CMIE database.

## **Variables of Interest**

### *Performance Measure*

The beta of the stock has been utilized as a measure of risk. It is one of the most famous techniques to measure the systematic risk associated with stock return, and in many ways it can be considered to be more meticulous than other risk measures like variability in accounting profitability and equity returns, which are in general criticized for accounting manipulations and subjectivity (Jayesh Kumar, 2004; Hawawini et al., 2003). It is based on CAPM, which is a well-recognized method to measure risk and follow a strict formula of calculation. One crucial point is raised by Demsetz and Lenn (1985) about the frequency of data availability. Equity returns data can be collected monthly and in recent times on a daily basis also, while accounting data could be available quarterly at the best. This point is purely statistical, but it is well-documented that a large sample is a solution to many issues related to estimation. Low (2006) has argued that the estimation of a firm's risk is a critical issue because numerous factors on which the calculation of risk depends are those for which data is not readily available. CAPM beta has also a few serious issues, as, for instance, Ross (1976) stated that it is not only an efficient portfolio's return that determines stock return, but there are many other forces behind. However, it is also true that, in spite of all the controversy around it, it has been widely in use. Although the beta is

considered to be determined by the forces outside of the firm, it can be argued that the severity of such forces is felt more by frail firms. This way, a debt-ridden firm will be hit harder by the increase in interest rates than all-equity firms. To avoid accounting manipulations and subjective imputations, CAPM beta has been used in this analysis as a measure of risk.

### *Ownership Variables*

SEBI (Securities and Exchange Board of India) has classified shareholders broadly into two categories – promoters and promoters group and public shareholders. Public shareholders are further classified into two categories: retail and institutional shareholders. Promoters and promoters group and institutional shareholders have been included in this study because they hold a larger portion of total shares, have knowledge of the business and the market, and are in the position to define corporate policies, which in turn decide the risk and return of the firm. Promoters' shareholding is measured through the percentage of total shares held by promoters, and institutional shareholding is measured by the percentage of total shares held by institutions.

### *Control Variables*

Based on previous research, the study includes few control variables, which are expected to affect the measure of risk, beta. McEarchen (1976), Nguyen (2011), and Jiraporn (2015) considered size as a determinant of risk. In this study, size is measured through the natural logarithm of sales. It is likely to affect a firm's risk because it can be argued that large-sized firms have greater ability to absorb economic volatility than smaller firms. Damodaran (2006: 51) discussed three determinants of Beta: industry of the firm; operating leverage, that is, fixed assets to total assets ratio; financial leverage, that is, debt-equity ratio. The same definitions of these variables have been adopted for this study. Similarly, Mandelker and Rhee (1984) have also found the degree of financial leverage and operating leverage to be the major determinants of risk, which they measured through beta because these two magnify the intrinsic business risk. PBV ratio has been included in the analysis as a proxy of growth opportunities available to the firm. It is the ratio of market value of equity divided by book value of equity. ROA has been incorporated in the belief that changes in profitability affect market sentiments and risks associated with the firm; it is ratio of net income to book value of total assets multiplied with hundred. To control for industry effect, industry dummies based on the NIC (National Industrial Classification) classification of industries have been included in the model. Similarly to control for macroeconomic effects, time dummies have also been included in the model.

## The Empirical Model

The panel data model is as follows:

$$\text{Risk} = \beta_0 + \beta_1 * \text{Promoters}_{it} + \beta_2 * \text{Institutions}_{it} + \beta_3 * \text{Size}_{it} + \beta_4 * \text{OL}_{it} + \beta_5 * \text{FL}_{it} + \beta_6 * \text{PBV}_{it} + \beta_7 * \text{ROA}_{it} + \beta_8 * \text{Industry dummy}_l + \beta_9 * \text{Time dummy}_t \quad (1)$$

where risk is measured by beta for the period of 2006/07–2015/16, “promoters” represents the promoters’ shareholding in the firm, “institutions” is the shareholding by institutions, “Size” is the natural logarithm of total sales, “OL” is operating leverage, “FL” is financial leverage, “PBV” is price to book value ratio, “ROA” is return on assets, “Industry dummy” is the dummy of each industry, and “Time Dummy” is the dummy allotted to each year from 2006-07 to 2015-16.

**Table 1.** Descriptive statistics

<b>Variables</b>	<b>Count</b>	<b>Mean</b>	<b>Median</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Ownership Variables</b>						
<b>Promoters</b>	3,868	53.03	53.51	16.10	0	93.15
<b>Institutions</b>	3,868	17.70	15.57	14.11	0	71.32
<b>Control Variables</b>						
<b>Size</b>	3,868	8.51	8.74	2.26	-4.60	15.20
<b>OL</b>	3,868	0.29	0.28	0.17	5.97e-07	0.93
<b>FL</b>	3,868	1.71	0.64	13.25	0.01	437.91
<b>PBV</b>	3,868	3.14	1.61	8.21	0	265.06
<b>ROA</b>	3,868	5.54	4.76	8.48	-120.8	115.83
<b>Industry dummy</b>	14					
<b>Year dummy</b>	10					
<b>Dependent Variable</b>						
<b>Beta</b>	3,868	1.06	1.04	0.38	0.09	2.9

Table 2 exhibits the descriptive statistics on ownership, control, and dependent variables. It is clearly visible that in India promoters are the dominant shareholders as the table indicates that mean promoters’ shareholding is as high as 53.03 in the largest 500 companies of the country. According to Khanna and Palepu (2005), concentrated ownership is an outcome of the institutional void, which is a key

feature of Third World countries. Although the government has mandated all the listed companies to reduce their promoters holding up to a maximum of 75%, there are few companies having greater promoters' ownership. Institutional shareholding here includes all institutions comprising banks, mutual funds, insurance companies, FIIs, etc. with the argument that all institutions are profit-oriented and are intensely cautious about their interests. Companies included in the analysis are quite distinct from one another, as company-specific information reflects. Sales measured in log vary from 15.20 to -4.60 (0.01 Cr.) and ROA from 115 .83 to -120.8. The case is similar for other variables including the dependent variable Beta.

**Table 2.** Test results for the OLS estimation

Tests ↓			
<b>Test of poolability (Breusch–Pagan LM test)</b>	$\chi^2 = 4988,$	$(2.2e-16 \text{ ***})$	DF = 1
<b>Test for model selection (Hausman test)</b>	$\chi^2 = 155.28$	$(2.2e-16 \text{ ***})$	DF = 18
<b>Test for cross-section dependence (Pesaran CD test)</b>	Z = 0.287	$(0.7739)$	
<b>Test for serial correlation (Breusch–Godfrey)</b>	$\chi^2 = 1025.1$	$(2.2e-16 \text{ ***})$	DF = 1
<b>Testing for unit roots/stationarity (Dickey–Fuller test)</b>	D-F coef = -21.382	$(0.01)$	
<b>Test for heteroskedasticity (Breusch–Pagan test)</b>	BP = 471.84	$(2.2e-16 \text{ ***})$	DF = 29

Note: the numbers in parentheses are p-values of t-statistics. \*\*\* indicates significance at 0.1 percent level, \*\* indicates significance at 1 percent level, \* indicates 5 percent level, + indicates significance at 10 percent level.

### *Tests Used for Data Consistency*

First of all, OLS (Ordinary Least Squares) estimation has been carried out and checked for the presence of various statistical issues that affect the estimation of coefficients. Since two ownership variables have been included in the analysis, the presence of multicollinearity cannot be ruled out, and so VIF analysis is performed, which suggests the non-existence of multicollinearity (3.85 for promoters and 4.11 for institutions). Then, to check for the presence of panel effects, the Breusch–Pagan (LM) test was applied in the model. It has been found that the panel effect is significant and panel data models are needed. To compare the panel data models that are fixed effects and random effect, the Hausman test was used, whose results were also significant and suggested the use of fixed-effects models. To search out the presence of cross-correlation among entities, Pesaran's cross-dependence test was applied. The test suggests the absence of a significant level of crossdependence. Serial correlation is another problem that used to be present in data with a time

dimension. The Breusch–Godfrey test was used to detect serial correlation, and a strong existence was found in this respect. Further, the augmented Dickey–Fuller test was employed to detect non-stationarity, according to which the data are stationary. And, lastly, to test for heteroskedasticity in the data, the Breusch–Pagan test was applied, which showed that data was not homoskedastic. *Table 2* exhibits the results of tests performed on OLS.

Since the Pesaran test suggests an absence of cross-dependence, two problems – serial correlation and heteroskedasticity – that could hinder the inference, need to be resolved. The Arellano estimator (1987) was applied to control for the simultaneous occurrence of serial correlation and heteroskedasticity. Based on the assumption of fixed T and large N, Arellano extended White’s heteroskedasticity-consistent estimators for panel data in the following form:

$$\beta = (X'X)^{-1} \sum_{i=1}^n X_i^T u_i u^T X_i (X'X)^{-1},$$

where:

–  $(X'X)^{-1}$  are breads and

–  $\sum_{i=1}^n X_i^T u_i u^T X_i$  is the covariance to be added in regression, also called meat of the sandwich (Arellano, 1987; Millo, 2017).

## 4. Results and Discussion

*Table 3* presents the results of the analysis. The study has found that the impact of promoters is negative (-0.004) and highly significant with the p-value (2.02-07), and thus the first hypothesis that promoters have positive impact on risk is rejected. It indicates that large investment by promoters prevents them from getting involved in risky projects. A possibility could be that they are actually involved in a few risky projects, and making profits for the business and the market renders their presence positive in the belief that they will keep the operations intact. Here a comparison between market-related risk and risk related with accounting profits will perhaps give us more insight. Institutional investors are also negative (-0.003) and significant (0.000), which was expected and supported by literature. Since many large financial institutions are owned by the government, due to the extensive employment they make possible and the many deposits of the poor classes that they manage, the government has strict norms for them to follow when investing and lending their funds. Again, banks and financial institutions are the largest loan



providers to companies too because the debt market is not well-developed here, and so they avoid excess risk taking due to their commitments to their customers and other stakeholders.

**Table 3.** *Regression result for fixed-effects model*

<b>Independent Variables</b>	<b>Estimates (p-values)</b>
<b>Promoters</b>	-0.004 (2.02-07)***
<b>Institutions</b>	-0.003 (0.000)***
<b>Size</b>	0.007 (0.284)
<b>OL</b>	-0.279 (0.000)***
<b>FL</b>	0.000 (0.188)
<b>PBV</b>	-0.003 (0.034)*
<b>ROA</b>	-0.13 (2.2e-14)***
<b>Intercept</b>	1.447 (2.2e-16)***
<b>Year Dummy</b>	Included
<b>Industry Dummy</b>	Included
<b>F value</b>	33.326 (2.2e-16)***
<b>Adjusted R<sup>2</sup></b>	0.195

Note: the numbers in parentheses are p-values of t-statistics. \*\*\* indicates significance at 0.1 percent level, \*\* indicates significance at 1 percent level, \* indicates 5 percent level, + indicates significance at 10 percent level.

As far as control variables are concerned, size and financial leverage (FL) have positive but insignificant effect (with p-values of 0.284 and 0.188 respectively), while ROA has a very significant and negative impact (with a p-value of 2.2e-14). It seems that profits are rather important for the market, and if a firm performs consistently, the risk, projected by the market, will be smaller. Operating leverage (OL) is also negatively and significantly (with the p-value 0.000) related to market risk, which indicates that the market prefers firms with higher operating leverage. Most of the firms included in this study being in the manufacturing sector, which requires a relatively higher level of fixed assets, could be a reason for obtaining such result. PBV, which indicates the growth prospect of the firm, is also negatively and significantly (p-value is 0.034) related to market risk. Nguyen (2011) is of the view that growth firms face high uncertainty regarding their future cash flows, and so the higher the PBV (MBVA, in his study) ratio, the higher will be the risk. One of the explanations for such difference could be that the sample includes the largest firms, and the market believes in their competence because in this country the largest firms are generally owned by big business houses, and they have created wealth for shareholders in the long run.

## 5. Conclusions

Using the estimation procedure that is consistent with the presence of heteroskedasticity and serial correlation, the study observed that concerning India both promoters and institutional shareholders are risk-averse. The cautious attitude of institutional shareholders is expected and supported by the literature too; however, the negative impact of promoters, which is a close substitute of family ownership in India, needs serious discussion because family ownership has been found in literature to be positively associated with risk taking in developed nations. The conclusion can be drawn that the institutional and societal obligations and political interference in India require a firm to behave conservatively. Simultaneously, this can indicate that financial markets and players are still in the developing stage in India, and so promoters do not get sufficient scope to diversify, and they behave conservatively to keep their businesses dependable as they used to have a large stake in the firm. Poor enforcement of corporate protection could be another factor to explain this finding.

## References

- Amihud, Y.; Kamin, J. Y.; Ronen, J. (1983). 'Managerialism', 'ownerism' and risk. *Journal of Banking & Finance* 7(2): 189–196.
- Amihud, Y.; Lev, B. (1981). Risk reduction as a managerial motive for conglomerate mergers. *The Bell Journal of Economics* 12(2): 605–617.
- Anderson, R.; Reeb, D. (2003). Founding-family ownership and firm performance: Evidence from the S&P 500. *The Journal of Finance* 58: 1301–1327.
- Arellano, M. (1987). Practitioners' corner: Computing robust standard errors for within-groups estimators. *Oxford Bulletin of Economics and Statistics* 49(4): 431–434.
- Berle, A.; Means, G. (1932). *The modern corporation and private property*. New York: McMillan.
- Boubakri, N.; El Ghoul, S.; Guedhami, O.; Megginson, W. L. (2018). The market value of government ownership. *Journal of Corporate Finance* 50: 44–65.
- Breusch, T. S.; Pagan, A. R. (1980). The Lagrange multiplier test and its applications to model specification in econometrics. *The Review of Economic Studies* 47(1): 239–253.
- Chen, C. R.; Steiner, T. L., Whyte, A. M. (1998). Risk-taking behavior and management ownership in depository institutions. *Journal of Financial Research* 21(1): 1–16.
- Cheng, S. (2008). Board size and the variability of corporate performance. *Journal of Financial Economics* 87(1): 157–176.

- Damodaran, A. (2006). *Damodaran on valuation, security analysis for investment and corporate finance*. USA: John Willey & Son. Inc.
- Demsetz, H.; Lehn, K. (1985). The structure of corporate ownership: Causes and consequences. *Journal of Political Economy* 93(6): 1155–1177.
- Ghysels, E.; Santa-Clara, P.; Valkanov, R. (2005). There is a risk-return trade-off after all. *Journal of Financial Economics* 76(3): 509–548.
- Gupta, N. (2005). Partial privatization and firm performance. *The Journal of Finance* 60(2): 987–1015.
- Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica: Journal of the Econometric Society* 46(6): 1251–1271.
- Hawawini, G.; Subramanian, V.; Verdin, P. (2003). Is performance driven by industry- or firm-specific factors? A new look at the evidence. *Strategic Management Journal* 24(1): 1–16.
- Jensen, M. C.; W. H. Meckling (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3: 305–360.
- Jiraporn, P.; Chatjuthamard, P.; Tong, S.; Kim, Y. S. (2015). Does corporate governance influence corporate risk-taking? Evidence from the Institutional Shareholders Services (ISS). *Finance Research Letters* 13: 105–112.
- John, K.; Litov, L.; Yeung, B. (2008). Corporate governance and risk-taking. *The Journal of finance* 63(4): 1679–1728.
- Kakani, R. K.; Saha, B.; Reddy, V. N. (2001). Determinants of financial performance of Indian corporate sector in the post-liberalization era: An exploratory study. *NSE Research Initiative*, Paper No. 5.
- Khanna, T.; Palepu, K. (2000a). Emerging market business groups, foreign intermediaries, and corporate governance. In: Morck, Randall K. (ed.), *Concentrated corporate ownership*. University of Chicago Press. 265–294.
- (2000b). Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups. *The Journal of Finance* 55(2): 867–891.
- (2005). The evolution of concentrated ownership in India: Broad patterns and a history of the Indian software industry. In: Morck, Randall K. (ed.), *A history of corporate governance around the world: Family business groups to professional managers*. University of Chicago Press. 283–324.
- Lins, K. V. (2003). Equity ownership and firm value in emerging markets. *Journal of Financial and Quantitative Analysis* 38(1): 159–184.
- Low, A. (2009). Managerial risk-taking behavior and equity-based compensation. *Journal of Financial Economics* 92: 470–490.
- Mandelker, G. N.; Rhee, S. G. (1984). The impact of the degrees of operating and financial leverage on systematic risk of common stock. *Journal of Financial and Quantitative Analysis* 19(1): 45–57.

- Maury, B. (2006). Family ownership and firm performance: Empirical evidence from Western European corporations. *Journal of Corporate Finance* 12: 321–341.
- McConnell, J. J.; Servaes, H. (1990). Additional evidence on equity ownership and corporate value. *Journal of Financial Economics* 27(2): 595–612.
- McEachern, W. A. (1976). Corporate control and risk. *Economic Inquiry* 14(2): 270–278.
- Millo, G. (2017). Robust standard error estimators for panel models: A unifying approach. *Journal of Statistical Software* 82: 1–27.
- Monsen, J.; Downs, A. (1965). A theory of large managerial firms. *Journal of Political Economy* 73: 221–236.
- Morck, R.; Nakamura, M.; Shivdasani, A. (2000). Banks, ownership structure, and firm value in Japan. *The Journal of Business* 73(4): 539–567.
- Nguyen, P. (2011). Corporate governance and risk-taking: Evidence from Japanese firms. *Pacific-Basin Finance Journal* 19(3): 278–297.
- Patibandla, M. (2006). Equity pattern, corporate governance and performance: A study of India's corporate sector. *Journal of Economic Behavior & Organization* 59(1): 29–44.
- Pesaran, M. H. (2004). *General diagnostic tests for cross section dependence in panels*. University of Cambridge, Cambridge Working Papers in Economics, 435.
- Radice, H. K. (1971). Control type, profitability and growth in large firms: An empirical study. *The Economic Journal* 81(323): 547–562.
- Sahu, A. K. (2015). Does institutional shareholding affect firm value? An empirical analysis in Indian market. Available at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2413074](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2413074). (Last accessed on: 9 June 2015).
- Saito, T. (2008). Family firms and firm performance: Evidence from Japan. *Journal of the Japanese and International Economies* 22: 620–646.
- Stano, M. (1976). Monopoly power, ownership control, and corporate performance. *The Bell Journal of Economics* 7(2): 672–679.
- Stephen, R. (1976). The arbitrage theory of capital asset pricing. *Journal of Economic Theory* 13(3): 341–360.
- Thomsen, S.; Pedersen, T. (1996). Nationality and ownership structures: The 100 largest companies in six European nations. *MIR: Management International Review* 36(2): 149–166.
- Varma, J. R. (1997). Corporate governance in India: Disciplining the dominant shareholder. *IIMB Management Review* 9(4): 5–18.
- Villalonga, B.; Amit, R. (2006). How do family ownership, control and management affect firm value? *Journal of Financial Economics* 80(2): 385–417.
- Villalonga, B.; Amit, R. (2010). Family control of firms and industries. *Financial Management* 39(3): 863–904.



# Agricultural Financing and Unemployment Rate in Nigeria: A Cointegration Approach

Raymond Rahaj ADEGBOYEGA

Faculty of Social and Management Sciences, Olabisi Onabanjo University,  
Ago-Iwoye, PMB 2002, Ogun State, Nigeria  
e-mail: dgbyga@gmail.com

**Abstract.** In Nigeria, the level of agricultural productivity and farmers' income have been affected by inadequate financing, which invariably discourages job creation and increases unemployment rate. Therefore, the study examines the impact of agricultural financing on unemployment rate in Nigeria, using time series data collected from the Central Bank of Nigeria (CBN) and the World Bank database from 1981 to 2018. Using Johansen's cointegration, Error Correction Method (ECM), and Granger causality analytical techniques, our findings show that AGRIC\_GDP, AGRICL\_TL, GR, LR, and RUTP have a long-run relationship with UNEMPR and are statistically significant. Also, the ECM of about 57%, which is statistically significant, provides an indication of a satisfactory speed of adjustment and translates that about 57 percent of the errors are corrected in each period. The study recommends among others that government policy on agricultural credit should place more emphasis on strengthening banks' commitment.

**Keywords:** agricultural financing, agricultural production, financial markets, growth rate, unemployment rate

**JEL Classification:** E24, E44, G00, G20, O40, Q14

## 1. Introduction

Unemployment as a macroeconomic and social phenomenon occurs due to the inability of eligible workforce to get appropriate jobs. Imoisi, Amba, and Okon (2017) explained that the unemployment rate as one of the fundamental measures of economic growth and development has become a crucial issue in both developing and developed economies. Okun (1962) further explained that, theoretically, there is an inverse relationship between unemployment rate and economic growth. Raifu (2017) observed that in Nigeria in the last few decades there had been tremendous growth in the economy, most especially with regard to the nation's gross domestic product and export trade performance. Despite these achievements, the nation

is still confronting many socioeconomic problems of which unemployment is a critical one.

Retrenchment in the banking sector, civil service retrenchment, and the fall in the output of companies have significantly added to the unemployment rate in Nigeria. These are also coupled with the fact that large-scale employment creation has not occurred in spite of the non-oil sector's impressive rate of over 7% since 2002 (Billetteft, Powell, and Treichel, 2008). As a result, there is a wide gap between job creation and population growth and, by implication, labour force.

Basically, higher productivity in agriculture is required to boost the growth and the subsequent development and sustainability of most developing countries. This becomes manifest by its effect on the growth of an economy through different channels such as employment potentials, export and financial impacts (Kareem et al., 2013; Kareem, Bakare, Ademoyewa, Ologunla, and Arije, 2015). In Nigeria, the agricultural sector occupied a prominent position in the national economy before the discovery of oil in commercial quantity contributing significantly to the overall performance of economy (Ayinde, Muchie, and Olatunji, 2011).

Despite the advent of oil exploration in large quantities which serves as the major source of foreign exchange earnings in Nigeria, agriculture still plays an important role in the job creation for the large adult population and also, improves the standard of living (Yusuf and Omonona, 2002; Olatunji, Omotesho, Ayinde, and Adewumi, 2012). Due to the importance of the agricultural sector to the economic growth of any nation, an adequate funding is required in this sector.

The Department for International Development (DID, 2005) observed that for the proper development of the agricultural sector there is a need to provide basic financial services, in the form of saving accounts, loans, and insurance: health, life, credit insurance products and leasing. Further, Aliero, Ibrahim, and Shuaibu (2012) attributed high unemployment rate in Nigeria to the lack of accessibility to financial services, especially in rural areas where agriculture is predominant. As the main agents of agricultural financing, the role of banks is evident in funding licensed buying agents, funding projects by corporate bodies, co-operative societies as well as groups of farmers (Ojiegbe and Duruechi, 2015).

Also, Olagunju and Adeyemo (2008) observed that agricultural financing is crucial in terms of procurements of agricultural input and the clearing of farmlands with a view to plantation, which may boost agricultural productivity and employment in the sector. But in Nigeria agricultural financing has been identified as a major deterrent to economic growth despite the fact that the country is favoured by nature with rich soil, warm temperature, and favourable well-distributed rainfall, which support agricultural production. This is the joint result of the absence of the government's agricultural credit policy and the inability of financial institutions to offer support to the farmers. Therefore, the effective productivity of farmers can only be achieved through the provision of adequate financial assistance.

In an attempt to address these challenges facing the sector, successive governments have formulated, introduced, and implemented numerous programmes and policies so as to make production in agriculture meet the consumption needs of the population. Despite these, the majority of rural farmers do not have access to credit facilities from financial institutions due to the following reasons: lack of collateral, non-cost effective, and high default rate (Jumare, 2006).

From the foregoing, it becomes necessary to carry out a study on this topic, because very few studies investigated the impact of agricultural financing on unemployment rate, and they only argue in favour of a trickle-down effect; however, the present study introduces three fundamental variables which were not included in the previous studies.

Subsequent parts of the study include section two that deals with literature review, section three on methodology, section four containing the analysis, and section five making conclusions and recommendations.

## **2. Review of Literature**

Theoretically, agricultural financing reduces unemployment rate through many channels: for instance, the availability of finances to engage in mechanized farming increases real output, which in turn leads to increase in real income and employment. Also, it provides impetus for people to engage in agricultural production, which in turn serves as employment generation. Despite these, agricultural financial markets are locally monopolistic and full of asymmetric information in terms of high transaction (screening and monitoring) costs, but these attributes are not reflected by neoclassical models. Basically, some of the major reasons for market failure were attributed to stringent loan conditions, high interest rates, and taking control of borrowers' properties for loan repayment by lenders (Collender and Erickson, 1996). Further, Freshwater (1997) stated that local monopoly and asymmetric information between borrowers and lenders are closely connected to agricultural financial markets and can be used by the lenders (financial intermediaries) to review their agricultural loan during depressions. The endogenous growth model placed more emphasis on the importance of financial institutions and intermediation process due to their efficacy (Greenwood and Jovanovic, 1990; King and Levine, 1993; Pagano, 1993). Pagano asserts that a sound financial system development increases the amount of savings for investments as well as the efficiency of capital and determines the behaviour of savings rates. Also, the bank-based financial system's school of thoughts represented, e.g., by Allen and Gale (1999, 2003), Beck and Levine (2002), Ergungor (2004), or Levine (2005) provides in their various studies insights on how agricultural financing promotes rural economic development through employment generation among

others. Banks prefer to lend on long-term basis to co-borrowers (groups of farmers) with large stakes and not frequently changing ownership because they can be closely monitored – the attributes of typical agricultural producers. The assumption is that bank-based financial systems encourage agricultural financing, which may likely promotes growth through employment generation.

The relegation of agriculture to the background since the advent of crude oil exploration has deprived Nigerian farmers' access to financing facilities, which may boost their agriculture production that enhances self-employment. According to Olajide, Akinlabi, and Tijani (2012), in Nigeria, the agricultural sector that is critical for both the overall economic growth and the reduction of poverty accounts for the dominant share of GDP and employment. For the last four decades, this sector's performance has not been particularly robust due to various factors, particularly financing.

Accordingly, Asoluka and Okezie (2011) identified the rising trend in unemployment rate as one of the greatest problems facing the nation. Fadayomi (1992) and Osinubi and Olaleru (2006) stated that with vast human resources in Nigeria unemployment still persists due to underdevelopment and the underutilization of manpower resources, most especially in the rural areas which have adverse effects on the economy (Adebayo, 1999; Egbuna, 2001; Alanana, 2003; Okonkwo, 2005; Galadima, 2014).

Feyisetan (1991) defined labour force as a group of individuals that are ready and have made themselves available for gainful employment, while unemployed people are those who do not have any jobs at a particular time. Unemployment rate is the percentage of employable individuals in a country's workforce above 16 years of age who have no job or have been unable to find employment recently but are actively searching for work (Eze and Nwambeke, 2015). To put it briefly, unemployment is a measure within the purview of labour force.

Unemployment, which is one of the fundamental development challenges facing Nigeria at the moment, is a major cause of economic instability in many countries. Studying unemployment in Africa, Okonkwo (2005) observed three causes underlying it, including the educational system, the trends in labour market, and the development of skills (Billetteft, Powell, and Treichel, 2008).

The performance of agricultural sector in terms of agricultural output and its contribution to the overall economy requires the availability of finances and credit facilities (Aiyeomoni and Aladejana, 2016). The availability of financial resources may induce farmers to increase their agricultural output, which in turns contributes to the aggregate economy, even though some microfinance banks are offering financial services to rural people; however, most of the loans granted are not benefited by many farmers.

Typically, the absence of a sound credit policy and the low number of existing credit institutions have significantly and adversely affected the performance of



the agricultural sector and subsequently its contribution to the overall economy (Olagunju and Ajiboye, 2010). Agricultural financing, as according to Aladejana and Aiyeomoni (2016), is defined as how financial resources can effectively be utilized in order to increase the agricultural productive capacity. Dromel, Kolakez, and Lehmann (2010) argued further that agricultural financing has the potential to reduce unemployment and significantly ameliorate its persistence. In the same vein, Aliero and Ibrahim (2012) opined that easy accessibility to financial services, especially agricultural financing, has the tendency to reduce unemployment rate.

Arising from the perceived role of agricultural development in the economic performance of a nation, numerous studies have been conducted to examine the effect of the agricultural sector on economic growth. However, recent studies have concentrated much effort on trade openness and unemployment (Dutt, Mitra, and Ranjan, 2009; Felbermayr, Prat, and Schmerer, 2011; Kim, Chavas, Barham, and Foltz, 2012; Nwaka, Kalu, and Gulcay, 2015; Rafiu, 2017; Mohler, Weder, and Wyss, 2018), while studies on the effect of macroeconomic variables on unemployment were conducted by Magbool, Mahmoo, Sadttar, and Bhalli (2013), Oniore, Bernard, and Gyang (2015), and Nwachukwu (2017). Studies on agricultural credit and the economic growth nexus were carried out by Enoma (2010) and Ayeomoni and Aladejana (2016), while on determinants of loan demand and repayment policy among rural farmers were conducted by Bamisele (2006), Awoke (2004), Rhaji (2008), Bassey, Attaret, Nkeme, and Udoh (2014). As for agricultural growth rate and unemployment, Ayinde, Aina, and Babarinde's (2017) study showed an inverse relationship between agricultural growth rate and unemployment. Also, Enilolobo, Mustapha, and Ikechukwu (2019) found that changes in agricultural growth were causing unemployment during the period of their study. However, to the best of our knowledge, empirical evidence of how agricultural financing affects unemployment rate is not available in Nigeria. Given the facts that the studies which have examined the effect of agricultural financing on unemployment rate are few, it becomes imperative to investigate the relationship between agricultural financing and unemployment rate both in the short and the long run. Thus, the effect of agricultural financing on unemployment rate in Nigeria was examined.

### **3. Methodology**

The data collected from CBN and the World Bank data base from 1981 to 2018 were subjected to Johansen's cointegration, ECM, and Granger causality tests. The variables of the study comprised of unemployment rate (UNEMPR), agricultural loan to total loan ratio (AGRICL\_TL), rural population to total population ratio (RUTP), GDP growth rate (GR), agriculture to GDP ratio (AGRIC\_GDP), and lending rate (LR). In line with the theoretical framework in this study, we follow Solow's

(1956) growth model, which centred on the neo-classical aggregate production function given as:

$$Y = A^u K^\alpha L^{1-\alpha}, \quad (1)$$

where: Y is the Gross Domestic Product, K is the stock of physical and human capital, L is labour,  $1-\alpha$  is the technology, A is the constant reflecting the initial static endowment of capability, and u is the technological change. The mechanism of increasing agricultural output occurs as a result of the capabilities of technology introduced because the quantity of the output depends on a given level of input. This is possible through the availability of finances to engage in mechanized farming, which increases real output, which in turn leads to increase in real income and employment.

### Model Specification

The adopted production function model can be rewritten and specified in line with the major variables of the study as follows:

$$UNEMPR = f(AGRICL\_GDP, GDP) \quad (2)$$

The study model is based on the notion that agricultural financing has significant influence on unemployment rate in Nigeria. The formulated model is expanded and is based on the modified models of Ayeomoni and Aladejana (2016) and Ayinde, Aina, and Babarinde (2017). We included rural population to total population ratio (RUTP), GDP growth rate (GR), agricultural loan to GDP ratio (AGRICL\_GDP), agriculture to GDP ratio AGRIC\_GDP, and lending rate (LR), which were not included in their models.

Thus, the model is stated as follows:

$$UNEMPR = f(AGRICL\_TL, RUTP, GR, AGRIC\_GDP, LR) \quad (3)$$

### Estimating Technique

The cointegration and error correction estimating techniques used in this study are based on Engle and Granger's methods:

$$X_t = \mu + \theta \left( \frac{T}{2} \right) + aX_{t-1} + E_t, \quad (4)$$

where  $X_t$  is time series, the null hypothesis:  $a = 1$  and  $\theta = 0$ , and the  $T$  is the number of observations. The augmented Dickey–Fuller (*ADF*) test is used to determine stationarity of the data by applying the OLS method to estimate the coefficients as follows:

$$\Delta X_t = \mu + \theta_t + X_{t-1} + \sum_1^n \lambda_1 \Delta X_{t-1} + \mu_t \quad (5)$$

$n$  is used to remove the autocorrelation problems. If a unit root exists, then  $y = a - 1$  would be statistically different from zero. To conduct the test,  $t$ -value can be compared on the coefficient of  $X_{t-1}$  with critical values. The Granger representation indicates that if  $X_t$  and  $\lambda_t$  are integrated, their error correlation is as follows:

$$a(L)\Delta y_t = a_0 - \lambda(y_t - a_t X_t) + b(L)\Delta \lambda_t + c(L)E_t, \quad (6)$$

where  $a(L)$ ,  $b(L)$ , and  $c(L)$  are stable and invertible polynomials. The models are suitable for the presentation and modelling of cointegrating series. The ECM combines both the short- and long-run ( $y_t - aX_t$ ) dynamics. The second step of Engle and Granger's method is stated as:

$$\Delta y_t = a + \sum \alpha^r \Delta y_{t-1}^r + \sum \beta_j \Delta X_{t-1} + bEC_{t-1}, \quad (7)$$

where  $a$  denotes the first difference and  $EC$  represents the error term. Therefore, equation (3) can be rewritten as:

$$\ln UNEMPR = a + a_1 \ln AGRIC\_TL + a_2 \ln GR + a_3 \ln AAAGRIC\_GDP + a_4 \ln LR + a_5 \ln RUTP + \lambda e_{t-1} + \varepsilon_t \quad (8)$$

## 4. Analyses

### (i) Descriptive Statistics

In *Table 1* below, all variables are normally distributed, except GR, which is statistically significant. AGRIC\_GDP is the most normally distributed among the variables. For each of the variables, except GR, the standard deviation is lower compared to their mean. This explains a small coefficient of variation for all the variables, except GR with a large coefficient of variation. The range of variation between the maximum and minimum values for all the variables is too large.

**Table 1.** *Descriptive statistics*

	UNEMPR	AGRIC_GDP	AGRICL_TL	GR	LR	RUTP
Mean	10.38378	30.79649	8.340541	3.455405	45.07432	64.57405
Median	7.000000	32.27000	7.200000	3.800000	44.30000	65.70000
Maximum	27.40000	47.10000	19.60000	33.70000	65.10000	77.33000
Minimum	1.800000	19.99000	1.400000	-13.10000	28.30000	50.48000
Std. Dev.	7.807493	6.525056	5.471617	7.516888	9.831381	7.829776
Skewness	0.766157	0.026547	0.495517	1.250771	0.273956	-0.175393
Kurtosis	2.391711	2.648648	1.945404	8.905664	2.599435	1.935706
Jarque-Bera	4.190249	0.194661	3.228746	63.41580	0.710185	1.935982
Probability	0.123055	0.907256	0.199015	0.000000	0.701108	0.379845

Source: the author's computation, 2018

**(ii) Correlation Results**

Results in *Table 2* below indicate that the association between all variables except GR and UNEMPR is negative. This implies that an increase in AGRIC\_GDP, AGRICL\_TL, GR, and LR decreases unemployment rate (UNEMPR) in Nigeria, while an increase in GR increases UNEMPR, which in turn implies that growth rate in Nigeria does not reduce unemployment rate and is not in line with theoretical postulations. In addition, there is absence of multicollinearity among the predictor variables.

**Table 2.** *Correlation matrix results*

	UNEMPR	AGRIC_GDP	AGRICL_TL	GR	LR	RUTP
UNEMPR	1.000000	-				
AGRIC_GDP	-0.481830	1.000000				
AGRICL_TL	-0.727740	0.265979	1.000000			
GR	0.289743	0.051280	-0.207688	1.000000		
LR	-0.067000	0.398992	-0.040294	0.174248	1.000000	
RUTP	-0.782877	0.529872	0.678675	-0.348638	0.275310	1.000000

Source: the author's computation, 2018

### (iii) Unit Root Test

The unit root test in *Table 3* below shows that all variables are stationary at first difference integration, that is, of order I(1). Their probability values are less than 0.05 critical values at 5%, which indicates that these variables are significant and there is need to reject the null hypothesis. Therefore, Johansen's cointegration regression method of analysis is suitable for the study.

**Table 3.** *ADF Unit Root Test*

Variables	ADF Statistical Values	Order of Integration
UNEMPR	-6.6355*	I(1)
AGRIC_GDP	-6.5534*	I(1)
AGRICL_TL	-6.4294*	I(1)
GR	-8.8891*	I(1)
LR	-6.3801*	I(1)
RUTP	-6.4395*	I(1)

Source: the author's computation, 2018

Note: \*, \*\*, \*\*\* denote the level of significance at 1%, 5%, and 10% respectively.

### (iv)a. Johansen's Cointegration Test

The cointegration test proved three and one cointegration equation(s) for Trace and Max.-Eigen statistics, respectively, at the significance level of 5%. Since the critical values of Trace and Max-Eigen are lower than statistical values, there is a long-run relationship between UNEMPR and other independent variables. So, the null hypothesis of no long-run relationship is rejected.

**Table 4a.** *Trace Unrestricted Cointegration Rank Test*

Hypothesized No. of Cointegration Equation	Eigen Value	Trace Statistic	Critical Value at 5%	Prob.**
None*	0.747894	125.3061	95.75366	0.0001
At most 1*	0.527929	77.07930	69.81889	0.0117
At most 2*	0.459169	50.80742	47.85613	0.0257

Note: the trace test indicates 3 cointegrating equations at the 0.05 level

**Table 4b.** *Maximum Eigenvalue Unrestricted Cointegration Rank Test*

Hypothesized No. of Cointegration Equation	Eigen Value	Trace Statistic	Critical Value at 5%	Prob.**
None*	0.747894	125.3061	95.75366	0.0001

Source: the author’s computation, 2018

Note: the Max.-eigenvalue test indicates 1 cointegrating equation at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\* MacKinnon–Haug–Michelis (1999) p-values

**(iv)b. Normalized Cointegration Test**

Results in *Table 4c* show that 1% increase in AGRIC\_GDP, AGRICL\_TL, and LR reduced employment rate by 12.66%, 9.45%, and 1.26% respectively, while 1% increase in GR and RUTP increased the UNEMPR by 13.19% and 14.24% respectively. The implication of these results is that AGRIC\_GDP, AGRICL\_TL, and LR have correct signs in line with theoretical postulations, that is, they exhibited negative relationship with the UNEMPR. This shows that there is an inverse relationship between AGRIC\_GDP, AGRICL\_TL, LR, and UNEMPR. Also, the positive relationship between GR, RUTP, and UNEMPR makes it evident that growth rate and rural population increased unemployment rate in Nigeria.

**Table 4c.** *Normalized Cointegration Test*

UNEMPR	AGRIC_GDP	AGRICL_TL	GR	LR	RUTP
1.000000	-12.66160	-9.448969	13.18785	-1.257716	14.24189
	(1.91808)	(2.57332)	(1.89144)	(1.18965)	(2.28638)

Source: the author’s computation, 2018

Note: normalized cointegrating coefficients (standard error in parentheses)

**(v) ECM Test**

The ECM of about -0.57 in *Table 5* below implies that the speed of adjustment of about 57% is corrected from its short-run and incorporated into the long-run equilibrium. It shows that about 57 per cent of the errors are corrected in each period.

**Table 5.** *ECM results*

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECM(-1)	-0.569346	0.164652	3.457868	0.0017

Source: the author’s computation, 2018

### (vi) Pairwise Granger Causality Test

The pairwise granger causality results show that unidirectional causality exists between AGRICL\_TL and UNEMPR, UNEMPR and RUTP, AGRICL\_TL and RUTP, and, since the probability values of the variables are lesser than 0.05 critical values, there is need to reject the null hypotheses.

**Table 6.** *Pairwise Granger Causality Tests*

Lag 2			
Null Hypothesis:	Obs.	F-Statistic	Prob.
AGRICL_TL does not Granger Cause UNEMPR	35	3.65159	0.0381
UNEMPR does not Granger Cause RUTP	35	3.59113	0.0400
AGRICL_TL does not Granger Cause RUTP	35	4.02765	0.0282

Source: the author's computation, 2018

## 5. Conclusions and Recommendations

### (i) Conclusions

The study investigates the effect of agricultural financing on unemployment rate in Nigeria using Johansen's cointegration statistical method to analyse the data. Study results indicate the existence of long-run relationship between agricultural financing and unemployment rate in Nigeria. Furthermore, the results show that 1% increase in AGRIC\_GDP, AGRICL\_TL, and LR reduces employment rate by 12.66%, 9.45%, and 1.26% respectively, while 1% increase in GR and RUTP increases the UNEMPR by 13.19% and 14.24% respectively. The study concluded that the rate at which agricultural financing and agriculture to GDP ratio reduced unemployment rate in Nigeria is very high. This informed the study to suggest that these agricultural financing indicators should be incorporated into the formulation of the government's strategic policies aimed at boosting agricultural output, which will invariably reduce unemployment rate in Nigeria. Also, the government should ensure that the agricultural sector's development policies are consistent with the objective of reducing unemployment in Nigeria.

### (ii) Recommendations

Based on the findings of this study, the following policies are recommended:

- The assistance of government, development, and financial institutions is required in the provision of adequate agricultural financing, promoting farm cooperatives, and the training of farmers in the application of new technologies.

– Rural developments and agricultural support strategies that will create more jobs in rural areas need to be put in place in order to reduce unemployment rate in Nigeria.

## References

- Adebayo, A. (1999). Youth unemployment and the National Directorate of Employment, Self-Employment Programmes. *Nigerian Journal of Economics and Social Studies* 41(1): 81–102.
- Alanana, O. O. (2003). Youth unemployment in Nigeria: Some implications for the third millennium. *Global Journal of Social Science* 2(1): 21–26.
- Aliero, H. M.; Ibrahim, S. S. (2012). Does access to finance reduce poverty? evidence from rural areas of Katsina State. *Mediterranean Journal of Social Science* 3(4): 575–581.
- Aliero, H. M.; Ibrahim, S. S.; Shuaibu, M. (2012). An empirical investigation into the relationship between financial sector development and unemployment in Nigeria. Paper presented at the 53<sup>rd</sup> Annual Conference of the Nigerian Economic Society, 27–30 August, NICON Luxury Hotel, Abuja.
- Allen, F.; Gale, D. (1999). Diversity of opinion and financing of new technologies. *Journal of Financial Intermediation* 8(2): 68–89.
- (2003). Competition and financial stability. *Journal of Money, Credit and Banking* 36(3): 453–480.
- Asoluka, N.; Okezie, A. I. (2011). Unemployment and Nigerian economic growth (1985–2009). *Proceedings of the 2011 International Conference on Teaching, Learning and Change* 1 (11).
- Awoke, M. U. (2004). Factors affecting loan acquisition and repayment patterns of small holder farmers in Ika North West of Delta State, Nigeria. *Journal of Sustainable Agricultural Resources* 9(1): 61–64.
- Ayeomoni, O.; Aladejana, S. A. (2016). Agricultural credit and economic growth nexus. Evidence from Nigeria. *International Journal of Academic Research in Accounting, Finance and Management Sciences* 6(2): 146–158.
- Ayinde, O. E.; Aina, I. V.; Babarinde, S. O. (2017). Effect of agricultural growth on unemployment and poverty in Nigeria (1980–2012): A co-integration approach. *Journal of Tropical Agriculture (Trinidad)* 94(4): 434–444.
- Ayinde, O. E.; Muchie M.; Olatunji G. B. (2011). Effect of climate change on agricultural productivity in Nigeria: A co-integration model approach. *Journal of Human Ecology* 35(3): 189–194.
- Bamisele, D. (2006). *Microfinance – A tool for rural development*. Paper delivered at the commissioning of Alhari Community Bank, Tudun Wada, Kaduna, 8–12.



- Bassey, N. E.; Attaret, A. E.; Nkeme, K. K.; Udoh, E. (2014a). Determinants of loan repayment: a study of rural women fish traders in Akwalbom State, Nigeria. *Journal of Economics. Management and Trade* 4(4): 541–550.
- Beck, T.; Levine, R. (2002). Industry growth and capital allocation: Does having a market- or bank-based system matter? *Journal of Financial Economics* 64(3): 147–180.
- Billetoft, J.; Powell, M.; Treichel, V. (2008). Nigeria: Labour market trends and skills development. Working Paper. World Bank, Washington D.C., 3 May.
- Collender, R.; Erickson, A. (1996). *Farm credit System, safety and soundness*, AIB-722 USDA-ERS, January.
- Dromel, N. L.; Kolakez, E.; Lehmann, E. (2010). Credit constraints and persistence of unemployment. *Labour Economics* 17(5): 823–834.
- Dutt, P. Mitra, D.; Ranja, P. (2009). International trade and unemployment: Theory and cross-national evidence. *Journal of International Economics* 78(1): 32–44.
- Egbuna E. N (2001). Food production: An African challenge. *Central Bank of Nigeria Economic and Financial Review* 39(1): 13–25.
- Enilolobo<sup>1</sup>, O. S.; Saidi A.; Mustapha, S. A.; Ikechukwu, O. P. (2019). Nexus between agriculture and unemployment Nigeria. *British Journal of Economics, Management and Trade* 22(5): 1–13.
- Enoma, A. (2010). Agricultural credit and economic growth in Nigeria: An empirical analysis. *Business and Economics Journal* 14(3): 1–7.
- Ergungor, O. E. (2004). Market vs. bank-based financial systems: Do rights and regulations really matter? *Journal of Banking and Finance* 28(2): 2869–2887.
- Eze, O. R.; Nwambeke G. C. (2015). Effect of deficit financing on unemployment rate in Nigeria: An error correction model. *International Journal of Small Business and Entrepreneurship Research* 3(7): 28–46.
- Fadayomi, T. O. (1992). *Migration development and urbanization policies in sub-Saharan Africa*, CODESRIA Books series Ibadan. 27–30.
- Felbermayr, G.; Prat, J.; Schmerer, H. (2011a). Globalization and labor market outcomes: Wage bargaining, search frictions, and firm heterogeneity. *Journal of Economic Theory* 146(1): 39–73.
- (2011b). Trade and unemployment: What do the data say? *European Economic Review* 55(6): 741–758.
- Feyisetan, B. J. (1991). *Population growth and the labour force, a study of relationships*. Paper presented at a seminar on population and development. Obafemi Awolowo University, Ile-Ife, Nigeria. June 25–28.
- Freshwater, D. (1997). Competition and consolidation in the farm credit system. *Review of Agricultural Economics* 19(6): 219–227.
- Galadima, M. (2014). Effects of youth unemployment and its consequence: A survey of youth in Yobe State, Nigeria. *IOSR Journal of Humanities and Social Science* 19(9): 91–95.

- Greenwood, J.; Jovanovic, B. (1990). Financial development, growth, and the distribution of income. *Journal of Political Economy* 98(4): 1076–1107.
- Imoisi, A. I.; Amba, E. A.; Okon, I. M. (2017). Unemployment rate and economic growth in Nigeria: An empirical analysis, 1980–2016. *International Journal of Development and Sustainability* 6(7): 369–384.
- Jumare, B. M. (2006). *Financial management in local government*. Lagos. NOUN.
- Kareem R. O.; Bakare H. A.; Ademoyewa G. R.; Ologunla S. E.; Arije A. R. (2015). Nexus between federal government spending on agriculture, agricultural output response and economic growth of Nigeria (1979–2013). *American Journal of Business, Economics and Management* 3(6): 359–366.
- Kareem, R. O; Bakare, H. A; Raheem, K. A; Ologunla, S. E; Alawode O. O.; Ademoyewa, G. R. (2013). Analysis of factors influencing agricultural output in Nigeria: Macroeconomic perspectives. *American Journal of Business, Economics and Management* 1(1): 9–15.
- Kim, K.; Chavas, J.-P.; Barham, B.; Foltz, J. (2012). Specialization, diversification, and productivity: A panel data analysis of rice farms in Korea. *Agricultural Economics* 43(6): 687–700.
- King, R. G.; Levine, R. (1993). Finance, entrepreneurship, and growth: Theory and evidence. *Journal of Monetary Economics* 32(3): 513–542.
- Levine, R. (2005). Finance and growth: Theory and evidence, In: Aghion, P.; Durlauf, S. (eds.), *Handbook of Economic Growth*. Netherlands: Elsevier Science.
- Maqbool, M. S.; Mahmood, T.; Sattar, A.; Bhalli, M. N. (2013). Determinants of unemployment: Empirical evidences from Pakistan. *Pakistan Economic and Social Review* 13(2): 191–208
- Mohler, L.; Weder, R.; Wyss, S. (2018). International trade and unemployment: Towards an investigation of the Swiss case. *Swiss Journal of Economics and Statistics*, 154(10): 1–12.
- Nwaka, I. D.; Kalu, E. U.; Gulcay, T. (2015). Trade openness and unemployment: Empirical evidence for Nigeria. *The Economic and Labour Relations Review* 26(1): 117–136.
- Ojiegbe J. N.; Duruechi, A. H. (2015). Agricultural loans, as catalyst for food production in Nigeria: The problems and prospects. *Research in World Economy* 6(4): 53–63.
- Okonkwo, I. (2005). *Poverty and unemployment alleviation strategies in Nigeria: Nigeria matter*. Nigerians in America Publisher.
- Okun, A. M. (1962). Potential GNP: Its measurement and significance. *Proceedings of the business and economics section of the American Statistical Association*. Washington, DC. American Statistical Association. 98–104.
- Olagunju, M. A.; Ajiboye, G. O. (2010). Economic issues in Nigeria's development. In: Akanbi, J. O. (ed.), *Towards a better Nigeria*. Ibadan: Ben Quality Press.

- Olajide, O.; Akinlabi, B.; Tijani, A. (2012). Agricultural resource and economic growth in Nigeria. *European Scientific Journal* 8(22): 103–115.
- Olatunji, G. B.; Omotesho, O. A.; Ayinde, O. E.; Adewumi, M. O. (2012). Empirical analysis of agricultural production and inflation rate in Nigeria (1970–2006). *Agro-Search* 12(1): 21–30.
- Oldeyemo, R. (2008). *Evaluation of the operational performance of the Nigerian Agricultural Credit Cooperative and Rural Development Bank (NACRDB) in South-Western Nigeria*. IJAERD Press.
- Oniore J. O.; Bernard A. O.; Gyang E. J. (2015). Macroeconomic determinants of unemployment in Nigeria. *International Journal of Economics, Commerce and Management* 3(10): 215–230.
- O’Nwachukwu, C. I. (2017). Determinants of the rate of unemployment in Nigeria. *Journal of Information Research and Review* 4(1): 3593–3595.
- Osinubi, T. S.; Olaleru, O. E. (2006). Budget deficit, external debt and economic growth in Nigeria. *Applied Econometrics and International Development* 6(3): 1–14.
- Pagano, M. (1993). Financial markets and growth: An overview. *European Economic Review* 37(5): 613–622.
- Raifu, I. A. (2017). On the determinants of unemployment in Nigeria: What are the roles of trade openness and current account balance? *Review of Innovation and Competitiveness* 3(4): 5–30.
- Rhaji, M. A. (2008). An analysis of the determinants of agricultural credit approval/ loan size by commercial banks in South Western Nigeria. *Nigeria Agricultural Development Studies* 1(1): 17–26.
- Solow, R. M. (1956). A contribution to the theory of economic growth. *Quarterly Journal of Economics* 70(5): 65–94.
- Yusuf, S. A.; Omonona B. T. (2002). Agricultural research and poverty alleviation. In: Okunmadewa, F. (ed.), *Poverty reduction and the Nigeria agricultural sector*. 145–178.





# Explore the Lessee Accounting Treatment When Utilizing the Islamic Financial Leasing

## A Comparative Analysis of IFRS and AAIOFI Accounting Standards for the Financial Leasing

Amer MORSHED,<sup>1</sup> Zsuzsanna SZÉLES<sup>2</sup>

<sup>1</sup> University of Sopron, Hungary, Alexandre Lamfalussy Faculty of Economics  
e-mail: amer.morshed@phd.uni-sopron.hu

<sup>2</sup> Budapest Metropolitan University, Hungary, Institute of Business Sciences  
e-mail: szeles.zsuzsanna@gmail.com

**Abstract.** This study aims to discuss the effects of the AAIOFI accounting standards of financial leased assets on the accounting treatment of the lessee in the case of using the Islamic finance lease. The importance of this study became evident when AAIOFI announced Islamic accounting standards with a significant difference between the IFRSs about the recognition of leased financial assets. Islamic financial institutions recognize the financial leased assets following AAIOFI accounting under long-term assets in the statement of financial position. This study used the interviews as a qualitative research method with financial managers of Jordanian companies using Islamic financial leasing. This study reached the conclusion that both Islamic financial leasing parties recognize the assets in the long-term asset side. The recommendations to avoid the inflation of the Islamic financial leased assets will be by applying a reasonable accountancy treatment by the lessee and consider it as operational leasing with proper justification for the non-compliance with the IFRS.

**Keywords:** financial lease, IFRSs (IFRS 16), Islamic accounting standards

**JEL Classification:** M4 – Accounting and Auditing

## 1. Introduction

Islamic finance has been utilized as an alternative and supportive financial tool in the market since the 1975 establishment of the first Islamic bank for commercial purposes, which is Dubai Islamic Bank (Baker, 2015). Since Islamic finance started out as an initial financial model, it was forced to work in a dual banking system, which is still being ruled by conventional banks (Khattak, 2010). During the first

stage of Islamic finance development, Islamic banks provided many financial products similar to the conventionally offered ones. These new products, called Shariah compliance products, complied with Islamic Shariah rules and included Islamic personal loans and Islamic credit cards (Baker, 2015). After almost a decade, these banks started to provide independent products based on Shariah rules, called “Sharia-based products”: for example, Mudarabah deposits, “partnership investment deposits”, and Ijarah Muntahia Bittamleek “Islamic Financial leasing” (Cebeci, 2012).

However, Islamic financial leasing and Murabaha commodity (buy and resale of products) are considered the most frequently used Islamic financial products (Mnif Sellami and Tahari, 2017). Recently, many organizations have been established to develop and govern Islamic finance. The most important of them is the Islamic Financial Services Board (IFSB), which considered issuing the Islamic financial risk management standards (Aydın, 2017), and AAOIFI, which is an international Islamic organization that issued standards relating to Islamic financing practices from the legal and professional aspects of Islamic financial institutions (Mnif Sellami and Tahari, 2017). This study will analyse and try to resolve the problem created when the AAOIFI issued the Islamic accounting standards to cover the differences of Islamic finance, which are related to Islamic rules from conventional banking. Notably, the standard (No. 8) Ijarah Muntahia Bittamleek (leasing) is issued with due regard to the principal compliance with the leased financial assets, from which the ownership of the asset is not transferred directly to the lessee following the IFRSs. This criterion of financial leased assets recognition may affect the debtor (lessee) accounting treatment when utilizing the Islamic financial leasing.

Moreover, the study focuses on the lessee financial reports side of the Islamic financial lease instead of the IFIs, but it also focuses on the practical side by reviewing real financial statements of the lessees and analysing many interviews with financial managers in addition to the theoretical comparison between the Islamic and the international accounting standards.

Section 2 presents a literary review in a chronological order, illustrating Islamic finance and what its products are. This situation is due to the lack of circulation of Islamic finance in Eastern Europe, which leads the researcher to expect that knowledge of this type of financing in this region will be limited.

The study then presents the reasons for the emergence of Islamic accounting standards and explains what is related to accounting for Islamic finance leasing, which interprets Islamic financial leasing.

Section 3 discusses the research methodology, Section 4 discusses the findings, and, finally, Section 5 provides the conclusions and recommendations.

## **2. Literature Review**

### **2.1. What Is Islamic Finance**

Gheeraert and Weill (2015) defined Islamic finance as a type of finance which follows the Islamic Shariah standards that follow from the Qur'an and Prophet Muhammad Sona'h. Under Islamic Shariah, interest is prohibited for everyone. Alternatively, interest is compensated by the mechanism of profit and loss sharing, meaning that the parties share the financial transaction in profit or loss. Another advantage of Islamic finance is the compulsion of contractual inevitability, in which the parties must clearly define the pillars of the contract and neutralize ambiguity. Furthermore, Islamic finance does not deal with finance activities that consider a violation of Islamic Shariah standard.

According to the Islamic Financial Services Board report (2016), Islamic banking market share has increased in more than half of the 31 examined jurisdictions and in a number of countries where Islamic banking is systemically essential (Cham, 2018). The majority of Islamic banking assets are in the Middle East, including Iran, Saudi Arabia, and the United Arab Emirates, which have an enormous volume of assets. Further, Malaysia is considered the leading country in Islamic finance. Here are some data on the Islamic banking asset totals in 2013, expressed in billion US dollars, of Islamic countries: Iran – 94.3, UAE – 96.7, Saudi Arabia – 90.4, Kuwait – 80.6, Bahrain – 46.2, Qatar – 59.0, Malaysia – 156.7, Indonesia – 13.0, Bangladesh – 17.0, Pakistan – 6.2, Sudan – 6.5, Egypt – 5.0, Tunis – 0.76, and Turkey – 44.8. As a further example, the United Kingdom has 3.3 billion US dollars of Islamic Banking Asset. Hoggarth (2016) found that Russia, Kazakhstan, and the entire central Asian region have engagement with Islamic finance to produce an additional source of income and utilize the unique features of Islamic finance (Levine, 2005).

Furthermore, the development of Islamic banking has the same level of importance as conventional banking and can add benefits to economic productivity and growth at the same level of convenience. Furthermore, Islamic banking provides a unique contribution to macroeconomics for two reasons. First, since the Islamic financial system depends on sharing the loss and profit of the financed projects, the IFIs increase the conservation of its credit policies by evaluation of the investment projects before they provide the loan to the debtor.

For that reason, these IFIs provide more significant contribution than conventional banks, by putting at disposal reliable analytical information about the project's risks and because the Islamic finance methodology is based on the entire economic cycle, is using partnership financing, and is sharing the overall risk with the other parties, not only using the loan agreement.

This depends on generating money from money without the other factors of the economic cycle as in conventional banking; the Islamic financial system is considered more valuable to the economy (Belanès, Ftiti, and Regaïeg, 2015). However, Islamic banks have succeeded in surviving the financial crisis impact in 2008 by keeping large amounts of deposits. On the other hand, conventional banks have lost the confidence of their clients. However, there is another factor to be explained besides the performance of the financial banks. Muslim depositors who are Shariah-compliant have tried to increase the deposit volumes. Furthermore, Islamic banks provide Shariah-compliant banking products and services, these types of products having been put aside due to the crisis of Islamic financial products.

These products can be classified under three groups depending on the type of the h-compliant contracts, as follows: trading contracts such as Murabaha (buy and resell), Salam (forward contract), and Istisna'a (build and sell). Further types are profit- and loss-sharing contracts (partnership contract), such as Musharakah and Mudarabah, and leasing contracts such as Ijarah, which is rent charged against the usufruct of assets (similar to the operating lease). Another form of Ijarah is Ijarah Muntahia Bittamleek, a leasing that ends by transferring the title of the asset to the lessee (identical to commercial rental in conventional finance).

Furthermore, some other services provided by Islamic banks are based on the Shariah-compliant contracts of Wakalah, Kafalah. In these contracts, Islamic banks perform business transactions for their customers against predetermined service charges (Ali and Hussain, 2017). Murabaha is the most common Islamic financing product that is used by most clients. Murabaha is a type of sales transaction between two parties, the seller and the buyer, where the seller has to expressly disclose to the buyer both the original cost and the mark-up, as according to the radical Shariah standards.

By using Murabaha, Islamic financial institutions determine the price – which consists of the original cost and the mark-up (an interest-based loan) – for the underlying assets to sell them to the client (buyer) in advance, and then the client (buyer) has to settle the price of the underlying assets by postponed instalments.

Islamic financial institutions do not have to own the underlying assets before starting the Murabaha process; they can buy the underlying assets to the buyer's order and then resell it to the buyer. By both options, the Islamic financial institution assumes the risks of the underlying assets. However, the underlying assets have to comply with the Islamic Shariah standards (AAOIFI, 2015). Musharakah (partnership contract) is an agreement between several parties to achieve profit by merging the assets, services, or obligations. Mudarabah is a partnership in profit, whereby one party provides capital (Rab al-Mal) and the other party offers labour (Mudarib). Islamic financial leasing involves the conventional financial leasing with the same target, which transfers the title of the underlying assets to the lessee



(Baker, 2015). However, Razi (2014) identified certain aspects of the Islamic system that make the Islamic financial leasing different. The most significant difference consists in that the title of the underlying assets remains in the financial statement of the lessor (the Islamic financial institution) until the real transfer of the title of the underlying assets to the lessee takes place, meaning that it is just a contract for renting the usufruct of the assets, and then there are other contracts to transfer the title. On the other hand, conventional financial leasing requires the lessee to recognize the underlying assets in his/her financial statements. (As there are four optional contracts for transferring Islamic financial assets, the title of the asset will be clarified in the Islamic financial leasing accounting section.) This difference generates other differences such as: the lessor has to bear the insurance cost and the maintenance cost of the underlying asset; the underlying assets need to comply with the Islamic Shariah standards (Lateef, Abdurrazzaq, Shukor, and Tajudin, 2017). However, a detailed description of the Islamic financial leasing will be provided by illustrating its accounting requirements in the section on Islamic accounting.

## **2.2. Islamic Accounting Standards**

Mohammed et al. (2015) argued that since Islamic finance began to develop, accounting standards for Islamic financial institutions have not been provided. Designing such standards governing this type of finance needs to be both in line with the Islamic law and governed by Shariah contracts, which constitute the roots of Islamic finance. Accordingly, the Accounting and Auditing Organization for Islamic Financial Organizations (AAOIFI) was established in Bahrain in 1991. The AAOIFI published a substantial body of accounting and governance standards for the Islamic accounting institutions (AAOIFI, 2015). However, compliance with AAOIFI standards in the Kingdom of Bahrain was investigated by Sarea (2012) and Vinnicombe (2012), and they found a high level of compliance on the part of the Islamic financial intuitions with AAOIFI accounting standards. Zyadat (2011) found that the IFIs in Jordan are in compliance with both accounting and Shariah AAOIFI standards since the Shariah supervisory bodies of the Jordanian IFIs are entirely independent. This leads us to realize that most IFIs apply the AAOIFI accounting standard.

Hijazi and Tayyebi (2010) found KPMG and ACCA. They pointed out that there is a misunderstanding in the application of international and even local standards in Islamic banks as well as a lack of standardization of accounting practices in Islamic banks, such as the adoption of international accounting standards. This article will compare IFRS 16 leases, the financial leasing section, with the AAOIFI accounting standard (FAS 8) with a view to explain the differences and the possible practical problems for the lessee.

**Table 1.** Comparison between IFRS 16 and FAS 8 regarding the criteria to be considered in the leasing process as a financial lease

Under IFRS 16	Under FAS 8
<p>The IFRS 16 set specific standards to determine the financial lease as follows:</p> <ul style="list-style-type: none"> <li>– “the lease transfers ownership of the asset to the lessee by the end of the lease term;</li> <li>– the lessee has the option to purchase the asset at a price which is expected to be sufficiently lower than the fair value at the date the option becomes exercisable that, at the inception of the lease, it is reasonably certain that the option will be exercised;</li> <li>– the lease term is for the major part of the economic life of the asset, even if the title is not transferred;</li> <li>– at the inception of the lease, the present value of the minimum lease payments amounts to at least substantially all of the fair value of the leased asset;</li> <li>– the lease assets are specialized such that only the lessee can use them without major modifications being made.”</li> <li>– “if the lessee is entitled to cancel the lease, the lessor’s losses associated with the cancellation are borne by the lessee;</li> <li>– gains or losses from fluctuations in the fair value of the residual fall to the lessee (for example, using a rebate of lease payments);</li> <li>– the lessee can continue to lease for a subsequent period at a rent that is substantially lower than the market rent.”</li> </ul>	<p>The Islamic accounting standard considers any leasing process as an operating lease unless there is another combined contract to transfer the ownership of the assets to the lessee; it will be a financial lease. In Islamic finance, this is called Ijarah Muntahia Bittamleek (AAOIFI, 2015). However, FAS 8 mentions four contracts that can be combined with the operating lease to make it a financial lease.</p> <ul style="list-style-type: none"> <li>– Gift contract The lessor includes in the combined agreement a promise to give the leased assets as a gift (for no consideration) to the lessee after repayment of all leasing instalments mentioned in the combined leasing contract.</li> <li>– Declining partnership According to this type of combined contract, the lessor concludes an off-balance partnership contract with the lessee, and the ownership of the leased assets is gradually transferred to the lessee regarding the leasing instalments since leasing instalments are divided into two portions, the first portion being considered as a revenue for the lessor and the second as part of the leased assets’ value. Moreover, both parties share the leased assets’ risk and the expenses regarding their share of ownership of the assets.</li> <li>– Nominal price contracts In this method, the ownership of the leased assets will be transferred to the lessee at any time if the lessee pays all leasing instalments and the nominal price, which are mentioned in the combined leasing contract.</li> <li>– Sales contract In this method, the ownership of the leased assets will be transferred to the lessee at any time if the lessee pays the actual price of the leased assets, which is mentioned in the combined leasing contract, and the leasing instalments paid by the lessee will be deducted from the total amount.</li> </ul>

Sources : IASB, n.d.; AAOIFI, 2015)

**Table 2.** Comparison between IFRS 16 and FAS 8 regarding the recognition of the financial leased assets

Under IFRS 16	Under FAS 8
<ul style="list-style-type: none"> <li>– “A lease is classified as a finance lease if it transfers all the risks and rewards incident substantially to ownership.”</li> <li>– “at the commencement of the lease term, the lessor should record a finance lease in the balance sheet as a receivable, at an amount equal to the net investment in the lease;”</li> <li>– “at the commencement of the lease term, the lessees should record finance leases as an asset and a liability at the lower of the fair value of the asset and the present value of the minimum lease payments (discounted at the interest rate implicit in the lease, if practicable, or else at the entity’s incremental borrowing rate);”</li> <li>“The depreciation policy for assets held under finance leases should be consistent with that for owned assets.”</li> </ul>	<ul style="list-style-type: none"> <li>– The IFI must recognize the leased asset under the non-current assets “items held for financial leasing”, and it must contain the whole risk of the financial leased assets.</li> <li>– The standard obliges the IFI as a lessor to apply all instructions of the operating leasing with regard to depreciation and maintenance expenses.</li> <li>– If the IFI is a lessee, it will also apply the instructions of the operational leasing for the recognition and the expenses.</li> </ul> <p>The standard does not mention any accounting treatment when the lessor or lessee is not an IFI.</p>

Sources : IASB, n.d.; AAOIFI, 2015)

By comparing the differences between the standards, a problem may arise when a firm applying the IFRS 16 utilizes the Islamic financial leasing, since the FAS 8 enforces the IFI as a lessor to recognize the leased assets in its statement of financial position as assets held to financial leasing under the non-current assets section and does not mention any accounting treatment when the lessor or lessee is not IFI. On the other hand, under the IFRS 16, a firm that utilizes Islamic financial leasing as a lessee must recognize the leased assets in its statement of financial position as a right-of-use asset, and the lessor must derecognize the leased assets from his financial statements. IFRS 16 does not mention any special accounting treatment for Islamic financial leased assets. The effects of this phenomenon lead to the duplication of the assets since both the lessee, which is an IFI in most of the situations, and the lessor will recognize the assets in their statement of financial position. Moreover, in this case, both parties will bear the risk of the assets and do the depreciation and handling of other expenses, and this situation will severely affect the statement of profit or loss, especially on the lessee’s side. This conflict should be resolved to provide better financial information.

*Accordingly, the hypothesis of this article will be:*

HP: the lessee recognizes the Islamic financial leased assets among the long-term assets in the statement of financial position.

### **3. Methodology**

The methodology that is used to test the hypothesis is qualitative interviews with five financial managers of Jordanian firms utilizing Islamic financial lease and a theoretical comparison between the IFRS 16 and FAS 8. Transcripts differ in several characteristics from organized questionnaires. First, the relationship between the counterparty and the participant is not restricted. There is no list of questions that must be fully implemented. The researcher will have an intellectual framework for the study questions, drawing on his professional experience and qualifications in Islamic finance and accounting for conducting the interviews (Cassell, 2015). In particular, the questions raised will be distinguished according to the context of the interview and its preparation. Second, the qualitative researcher must diversify the styles applied in his interviews. The interview questions are developed through participants' answers and actions (Cassell, 2015).

### **4. Findings**

After the analysis of the interviews with five financial managers of various firms utilizing Islamic financial leasing, using the coding system, findings are connected with the comparative analysis between the IFRS16 and FAS 8. They responded to the question: "Do you recognize the Islamic financial leasing assets under the non-current assets?" with "Sure, yes, this is the only method I use." Their answers were similar concerning the importance of compliance with the IFRSs – "I do not need a qualified opinion audit report for the financial statements." Most of their responses to the question "Why does your company utilize the Islamic financial lease?" was "to avoid interest" and "to comply with the Shariah rules", one of them also mentioning the relationship between the general manager and an Islamic bank. The answers for the question "Do you know what the accounting treatment of the IFI for the leased assets is?" were as follows: "the IFI still owns the assets" or "I do not know." Responses to the item "It will be an accounting problem since you and the IFI recognize the leased assets under the non-current assets. Can you not recognize it as non-current assets?" were: "I have to follow the IFRS" or "It would be a violation of IFRS."

The most relevant response to the question "Has AAIOFI mentioned any accounting treatment for the lessee?" was "no", and the direct response was: "It should be."

## 5. Conclusion and Recommendations

This study has focused on the accounting treatments of firms that fully comply with IFRSs and utilize Islamic financial leasing. We found that these firms apply the IFRS 16 guidelines because they care about the external audit report, and the AAOIFI did not mention any accounting treatment for these firms when utilizing Islamic financial leasing. On the other hand, the literature review provided evidence that the IFIs complied with the AAOIFI accounting standards.

According to the above mentioned, it is clear that both parties of the Islamic financial leasing process recognize the leased assets in their statements of financial position under the non-current items, although in accordance with the IFIs designation. This recognition of the Islamic financial leased assets causes a problem of dual depreciation and of other expenses recognized by the two parties, who bear the risk of the Islamic financial leased assets. Accordingly, this leads to inaccurate financial information.

Therefore, the recommendations are as follows:

1. Propose this case to the International Accounting Standard Board to allow these firms utilizing Islamic financial leasing to not recognize Islamic financial leased assets in their statements of financial position and only make a disclosure about it in the footnotes.
2. Propose this case to the Accounting and Auditing Organization for Islamic Financial Institutions to include an accounting treatment of these firms utilizing Islamic financial leasing.

## References

- AAOIFI. (2015). *AAIOFI's accounting, auditing and governance standards*. Manama: Accounting and Auditing Organization for Islamic Financial Institutions. King Fahd National Library Cataloging-in-Publication.
- Ali, M. A.; Hussain, T. (2017). Murabaha perceptions of Islamic bankers: Case of Pakistan. *COMSATS Institute of Information Technology Lahore Journal* 2(2): 42–58.
- Aydın, N. (2017). A quantitative framework for testing the resilience of Islamic finance portfolios under IFSB and Basel capital rules. *International Journal of Islamic and Middle Eastern Finance and Management* 10(3): 290–311.
- Baker, R. (2015), *CIMA advanced diploma in Islamic finance*. UK: Chartered Institute Management Accountant.
- Belanès, A.; Ftiti, Z.; Regaïeg, R. (2015). What can we learn about Islamic banks' efficiency under the subprime crisis? Evidence from GCC Region. *Pacific-Basin Finance Journal* 33: 81–92.

- Cassell, C. (2015). *Conducting research interviews for business and management students*. Sage.
- Cebeci, I. (2012). Integrating the social maslaha into Islamic finance. *Accounting Research Journal* 25(3): 166–184.
- Cham, T. (2018). Determinants of Islamic banking growth: An empirical analysis. *International Journal of Islamic and Middle Eastern Finance and Management* 11(1): 18–39. <https://doi.org/10.1108/IMEFM-01-2017-0023>.
- Gheeraert, L.; Weill, L. (2015). Does Islamic banking development favor macro-economic efficiency? Evidence on the Islamic finance-growth nexus. *Economic Modelling* 47: 32–39.
- Hijazi, S.; Tayyebi, A. (2010). Accountancy futures, harmonizing financial reporting of Islamic finance. *Paper Reports – KPMG and ACCA*.
- Hoggarth, D. (2016). The rise of Islamic finance: Post-colonial market-building in central Asia and Russia. *International Affairs* 92(1): 115–136.
- IASB. (n.d.). International Financial Reporting Standards (IFRS) and IFRIC interpretations [LandingPageContent]. Retrieved on: 10 November 2018, from: <https://www.iasplus.com/en/standards>.
- Khattak, N. A. (2010). Customer satisfaction and awareness of Islamic banking system in Pakistan. *African Journal of Business Management* 4(5): 662–671.
- Lateef, A. W.; Abdurrazzaq, A. A.; Shukor, S. A.; Tajudin, A. A. (2017). Maqasid Al-Shariah in Ijarah (leasing) contract of Islamic banking system. *Journal of Islamic Finance* 6(2): 038–044.
- Levine, R. (2005). Finance and growth: Theory and evidence. *Handbook of economic growth* 1: 865–934.
- Mnif Sellami, Y.; Tahari, M. (2017). Factors influencing compliance level with AAOIFI financial accounting standards by Islamic banks. *Journal of Applied Accounting Research* 18(1): 137–159.
- Razi, N. (2014). Islamic banking system and mode of leasing: A comparative analysis in the light of Maqasid al-Shariah. *Cultural and Religious Studies* 2(6): 349–359.
- Sarea, A. M. (2012). The level of compliance with AAOIFI accounting standards: Evidence from Bahrain. *International Management Review* 8(2): 27–32.
- Vinnicombe, T. (2012). A study of compliance with AAOIFI accounting standards by Islamic banks in Bahrain. *Journal of Islamic Accounting and Business Research* 3(2): 78–98.
- Zyadat, E. (2011). The independence of supervisory bodies, and the abidingness of their legal verdicts and decisions in the Islamic financial institutions (with examples on practical applications from the Hashemite Kingdom of Jordan). *An-Najah National University Journal* 5(7): 1857–1900.



## Book Review

Csaba LENTNER: *East of West, West of Asia –  
Historical Development of Hungarian Public Finances  
from the Age of Dualism to the Present*<sup>1</sup>

Csaba Lentner, professor of economics and one of the leading economists in the service of the National Bank of Hungary, is the author of a uniquely large list of publications, which can be consulted on his homepage, at: [www.lentnercsaba.com](http://www.lentnercsaba.com). He touches upon many aspects but especially issues of Hungarian economic history, banking, and state finances. These interests of his meet in this current volume, in which the author tries to provide a synthesis of the Hungarian state's financial affairs of the last roughly 150 years. As being such a historical work, covering a large period of time, it had to be divided into smaller parts. Accordingly, we can find five major periods from the political history of the Hungarian state: the period of the Austro-Hungarian dualist state from the Ausgleich (Compromise) until its last years of existence; the interwar period, with a special focus on the consolidation of financial affairs by the Bethlen government; the era of the Socialist state-planned economy; the post-communist period of transition from 1989 until 2010; the post-2010 years, characterized by a series of financial reforms during the successive Orbán governments and György Matolcsy's presidency in the management of the Hungarian National Bank. Through this linearity, the author is basically realizing a connection between certain moments from the past of Hungary and its present. At the same time, the author is largely documenting historical decisions and processes which determined the evolution of the Hungarian economic life, within which the focus is especially on state finances, this later concept being embedded in the first, larger one. The two methods are closely interrelated throughout the entire text, for example, in the case of the rearmament programme from Győr (1938) or the period of state planning, including the application of Új Gazdasági Mechanizmus (New Economic Mechanism) following the repressions of the 1956 revolution and the inauguration of the Kádár regime.

Basically, the methodology is consistent throughout the entire book, but each chapter has its own characteristics derived from the sources used and the certain

1 L'Harmattan, Paris–Budapest, 2020, p. 304. ISBN 978 2 343 18706 8  
[https://media.harmattan.hu/lentner\\_en/](https://media.harmattan.hu/lentner_en/)

features of the time span discussed. We can also notice that the author is selective in some sense: he does not cover the short periods that otherwise marked Hungarian history to a great extent such as the issues of the Hungarian economy during World War I and its immediate aftermath, including the Hungarian Republic of the Soviets, or the issues during World War II, including the period of German Nazi occupation. Most probably, the author meant to focus on the large periods during which evolution was somehow following a natural path.

The first large section, as I mentioned above, deals with the economic aspects of the Hungarian state administration between 1867 and 1918 but also with its roots. In this context, he discusses the intellectual ideas of the Hungarian Reform Era and of the Hungarian Revolution of 1848–1849. Some of the sources are original documents – including communiqués of the competent organs of those times and the works of István Széchenyi, among others –, which are completed by a rich bibliography, while also citing authors who are among the best in the field of Hungarian economic history such as Iván Berend, György Ránki, György Kövér, László Katus, and others. The hypothesis of the author is – and he brings serious arguments for proving it – that the Hungarian part of the Dualist Monarchy made serious efforts to shape the policies and to make investments for the benefit of the industrialization process through which Hungarian statesmen wanted to improve the percentage of industrial production in the country's global economy. Also, he states that the informal agricultural lobby – formed by the interests of great landowners, noblemen, the bourgeoisie, and rich peasantry alike – was somehow in opposition with the capitalist investments in industry, a conflict which would be inherited by the interwar decades too and which caused the relative backwardness of Hungary compared to other parts of the empire such as Austria or Bohemia. The efforts for modernization and industrialization were supported mostly by state capital – on p. 50, for example, it is mentioned that foreign investments were under 40%; therefore, the Hungarian national economy can be called as a sovereign economy. On the agenda of state policies, protectionism was the key doctrine, and food transformation industry became the most developed branch of the industry.

During the period of the interwar decades, marked in the plan of politics by the names of Miklós Horthy and, in the first part, Prime Minister István Bethlen, a special emphasis is given to the economic consolidation, which was indeed some sort of miracle if we mention, for example, the situation of interwar Austria (which became dependent, at a given moment, from the aids of the League of Nations). As a specialist in banking, the author gives a large space to the policies of the National Bank, whereby bringing an important contribution to the twentieth-century history of banking.

From the larger chapter dealing with the issues of the Hungarian national economy of the communist era, I would like to highlight two sections. The first one is the comprehensive text treating the evolution of the Hungarian banking system from the Soviet model implemented following 1948 to the liberalization of the eighties. In 1983, two economists, later playing a major role in the post-socialist Hungarian political and



economic life – György Surányi and Lajos Bokros –, managed to publish an article in the leading Hungarian-language academic journal *Közgazdasági Szemle*, in which they stressed on the introduction of the banking system with two steps, the reinforcement of capital investments in the economy and the independence of the National Bank from the politics of the ruling government. This relative liberalization of ideas made the post-socialist transition slightly easier than it could have been otherwise. The other important section is the one in which the author presents the continuous decline of the state-planned economy, reflected also in the living standards. On page 118, he delimits four phases in this process of decline. The rise of oil prices in 1973 was followed by the contraction of foreign loans between 1974 and 1978 to maintain the living standards of the population, which was illustrated, for example, by the rate of consumption: it was 20% higher than the average consumption in Western Europe.<sup>2</sup> Consequently, restrictions proved to be insufficient to restore the balance, and the growing unrest, the deterioration of living standards, and the lack of perspectives for any kind of a decent way out eventually caused the demise of the regime.

A particularly well-documented part of the work is the one providing a broad outline of the transition period of 1989–2010, with all of its pains, gains, successes, and mistakes, and with all the lessons learned from them. In the conclusions, the author summarizes that all the attempts based on austerity measures failed; however, the transition process proved to be successful, and this was materialized in the EU accession of Hungary.

The fifth chapter presents the direction taken by the Hungarian state economy following 2010, which is considered by the author in great part to be a success, but one that was hard to be obtained. This was possible, in his opinion, due to the often-unconventional monetary politics, the flexibility of the decision makers to apply the lessons of different theories (with other words, the lack of dogmatism), and, most of all, the encouraging of economic growth and development. As it can be deduced from his words, the author is not an unconditional partisan either of state control over the market economy or of the complete freedom of the non-state actors of the economic life but one of finding the right solutions for unique situations.

The book is well-documented, with bibliography and original sources, also including a series of statistics in its Appendix. It is an original work, worthy to be used as a reference and cited by all those who are interested in the state financial affairs of the Hungarian history of the last 150 years.

**Artur LAKATOS**

The Romanian Institute for Evaluation and Strategy  
e-mail: lakatosartur@partium.ro

---

2 This number will be not surprising at all if we remember how severely the oil crisis affected Western capitalist economies.



# Acta Universitatis Sapientiae

The scientific journal of Sapientia University publishes original papers and deep surveys in several areas of sciences written in English.

Information about the appropriate series can be found at the Internet address <http://www.acta.sapientia.ro>.

## Main Editorial Board

László DÁVID Editor-in-Chief

Adalbert BALOG Executive Editor  
Angella SORBÁN Managing Editor  
Csaba FARKAS Member

Zoltán KÁSA Member  
Laura NISTOR Member  
Ágnes PETHÓ Member

# Acta Universitatis Sapientiae Economics and Business

## Executive Editor

Zsolt SÁNDOR (Sapientia Hungarian University of Transylvania, Romania), [acta-econ@acta.sapientia.ro](mailto:acta-econ@acta.sapientia.ro)

## Assistant Editor

Andrea CSATA (Sapientia Hungarian University of Transylvania, Romania), [acta-econ@acta.sapientia.ro](mailto:acta-econ@acta.sapientia.ro)

## Editorial Board

Gyula BAKACSI (Budapest Business School, Hungary)  
Zsófia BENEDEK (Hungarian Academy of Sciences, Hungary)  
József BERÁCS (Corvinus University, Hungary)  
László BERÉNYI (University of Miskolc, Hungary)  
Bíborka Eszter BÍRÓ (Sapientia Hungarian University of Transylvania, Romania)  
Viktoria DALKO (Hult International Business School, USA )  
Tatiana DĂNESCU (George Emil Palade University of Medicine, Pharmacy,  
Science and Technology of Târgu-Mureş, Romania)  
Attila FÁBIÁN (University of West Hungary, Hungary)  
Gergely FEJÉR-KIRÁLY (Sapientia Hungarian University of Transylvania, Romania)  
József FOGARASI (Research Institute of Agricultural Economics,  
Hungary and Partium Christian University, Romania)  
Szilárd MADARAS (Sapientia Hungarian University of Transylvania, Romania)  
Vlad MANOLE (Rutgers University, USA)  
José L. MORAGA-GONZÁLEZ (Vrije Universiteit Amsterdam and University of Groningen, Netherlands)  
Benedek NAGY (Sapientia Hungarian University of Transylvania, Romania)  
Gábor NAGY (INSEEC Business School Paris, France)  
Monica RĂILEANU-SZELES (Transilvania University of Brasov, Romania)  
Johannes SAUER (Technical University of Munich, Germany)  
James W. SCOTT (University of Eastern Finland, Finland)  
Mariana SPATAREANU (Rutgers University, USA )  
János SZÁZ (Corvinus University, Hungary)  
Attila SZÓCS (Sapientia Hungarian University of Transylvania, Romania)  
József TÓTH (Corvinus University, Hungary  
and Sapientia Hungarian University of Transylvania, Romania)  
Attila VARGA (University of Pécs, Hungary)



Sapientia University



Scientia Publishing House

ISSN 2343-8894 (printed version)

ISSN-L 2343-8894

# Information for authors

As a broad-based professional and international journal, Acta Universitatis Sapientiae, Economics and Business welcomes submissions of applied and theoretical research papers in all fields of economics and business. The journal especially encourages submissions on research from management, marketing, quantitative methods and their applications, regional economics, regional development, agricultural economics, and finance. However, the journal is open to research coming from other areas of economics and business as well. The primary interest is to publish academic research, but the journal also welcomes good-quality research coming from practitioners.

The list of our occasional referees:

Gyöngyvér BÁLINT, László BERÉNYI, Bíborka Eszter BÍRÓ, Arnold CSONKA, Sándor ELEK, Gergely FEJÉR-KIRÁLY, Katalin GÁSPÁRNÉ VÉR, Lehel GYÖRFY, Alpár HORVÁTH, Rita KOROSZCZYNÉ PAVLIN, Gábor LUX, Szilárd MADARAS, Monica RĂILEANU SZELES, Gheorghe Cosmin SILAGHI, Gábor SZABÓ-SZENTGRÓTI, József VARGA

## Contact address and subscription:

Acta Universitatis Sapientiae, Economics and Business  
Sapientia Hungarian University of Transylvania  
RO 400112 Cluj-Napoca  
Str. Matei Corvin nr. 4.  
Email: [acta-econ@acta.sapientia.ro](mailto:acta-econ@acta.sapientia.ro)

## Printed by F&F INTERNATIONAL

Director: Enikő Ambrus

**ISSN 2343-8894 (printed version)**

**ISSN-L 2343-8894**

**<http://www.acta.sapientia.ro>**

Supported by:

