

**EXTERNAL GOVERNANCE, OPERATIONAL SELF-SUSTAINABILITY AND PROFITABILITY OF NON-BANKING MICROFINANCE INSTITUTIONS: AN ASIAN PERSPECTIVE**

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**ABSTRACT**

This study assesses the linkage between external governance and profitability of non-banking microfinance institutions (NBMFIs) through intervening role of operational self-sustainability (OSS). We have collected data from 49 NBMFIs listed at MIX market during 2014-2018. Data related to governance and performance have been extracted from World Governance Indicators (WGI) and Microfinance Information Exchange (MIX) market respectively. Structural equation modeling (SEM) has been employed to test the statistical relationships. The findings imply that all dimensions of external governance, except political stability, negatively influence the profitability of NBMFIs through OSS. Moreover, we have also created an index of external governance using Principal Component Analysis, which is named as General Governance (GG). The findings derived using SEM technique imply that OSS mediates the relationship between GG and NBMFIs' profitability. Moreover, NBMFIs are advised to take into account the governance structure of a country before starting operations, as the level of governance is found to have a significant impact on demand for such institutions' products and services.

**KEYWORDS**

External Governance, Operational Self-Sustainability, Profitability, Non-banking microfinance institutions (NBMFIs), Asia, Principal Component Analysis, and Structural Equation Modelling

**1. INTRODUCTION**

Microfinance institutions (MFIs) have been playing a significant role in improving the living standard of the poor, particularly in developing and emerging economies of the world (Gebretson, 2019) with approximately 10,000 MFIs working around the world to facilitate the cause of poverty alleviation (Marconatto et al., 2016). According to Microfinance Barometer (2019), the active number of microfinance borrowers has increased to 139.9 million, including 80% female and 65% rural borrowers. Within the Asian region, microfinance sector is reported to be the most developed and regulated (Shastri, 2009) where it has been successful in lifting 707 million people out of poverty during the period of 2002 to 2013 (Asian Development Bank, 2017). Moreover the growth rate for MFIs in Asia is reported to be 20%, which has been higher than all other regions (Herger et al., 2016). However, World Bank Poverty Report (2016) revealed that 43%

poor of the world are living in Asia; which highlights the fact that despite substantial microfinance activity in this region, this sector still faces the daunting challenge of facilitating the process of poverty alleviation for such huge population proportion.

Microfinance initially emerged in 1970s through an initiative taken by Dr Younas, a social entrepreneur; as a response to the need to cater to the financial needs of those poor who did not have access to formal financial services. A major milestone for the field of microfinance was the establishment of Grameen bank in Bangladesh in late 1970s. To appreciate the tireless efforts made by Dr Muhammad Younas, he was awarded the Nobel prize for peace in 2006 (Adams & Raymond, 2008). The emergence of modern microfinance facilitates the poor people having neither collateral nor the capacity of paying back the amounts borrowed (Iqbal et al., 2019). Generally, microfinance has developed and flourished in the weak and transitional economies of the world (Benedetta et al., 2015) which may be due to the fact that it is specially designed for the underserved segment of the population (Robinson, 2001). Microfinance is thus a strategy aimed at serving the poorer population, with the ultimate aim of poverty eradication (Chikalipah, 2017; Wamba et al., 2018).

Consultative Group to Assist the Poor (CGAP) has defined microfinance as a tool designed to provide banking services to the unbanked people through various types of MFIs such as; microfinance banks, non-governmental organizations (NGOs), credit unions and non-banking MFIs etc. The microfinancing facilities are generally offered while focusing on the double bottom line objectives of achieving financial sustainability and maximizing outreach to the poor (Lam et al., 2019). However, it is generally hard for an MFI to achieve twofold objectives of sustainability and outreach simultaneously due to the inherent tradeoffs between them (Hartarska & Nadolnyak, 2007). Thus it is observed that MFIs with a greater focus on financial sustainability are generally more profitable and tend to survive in the long-run as compared to other socially oriented MFIs (Woller et al., 1999). On the other hand, MFIs focusing on outreach can capture a significant proportion of the poor population; however, particularly targeting the poorest segment can result in higher default rates (Woller et al., 1999) which has negative repercussions for sustainability. It has also been reported that the recent developments in this sector have shifted many MFIs' focus from outreach to sustainability (Shahzad, 2015).

Sometimes, MFIs that have been receiving grants and donations, are required to follow the conditions imposed by the donors (Ofeh & Jeanne, 2017). In this regard, one of the critical requirements of many donor agencies has been to focus on financial sustainability; thereby ensuring lesser dependence on the donations (Haq et al., 2008). The greater focus on sustainability of MFIs that can lead to long-term survival (Crab, 2008) has resulted in denying the poor access to microfinance services (El-Maksoud, 2016). On the other hand, some MFIs, after achieving a sufficient level of sustainability, tend to start again focusing on the poor just to show their concentration on outreach (Ahlin et al., 2011). Therefore, it is proposed that the difference in the level of self- sustainability may be due to the uneven development of this sector which is associated with MFIs' performance.

In addition to the outreach-sustainability paradox faced by MFIs, lack of regulatory environment is another severe issue (Bedson, 2009). It needs to be highlighted that various factors can have an impact on performance; however, the external environment is known to significantly contribute towards the performance of MFIs (El-Maksoud, 2016; Ahlin et

al., 2011; Crab, 2008). This is in line with the Industrial Organizational view given by Porter (1981) that to gain competitive edge over rivals, firms have to cope with the external environment. The particular importance of environment for MFIs lies in the fact that many MFIs have to rely on donations from government and international institutions for their operations. Because of such reliance, MFIs are urged to develop the ability to cope well with the external environment because otherwise their performance might deteriorate, which can stop the flow of donations.

Within external environment, many factors contribute towards the performance of MFIs, such as business environment, external governance and economic freedom (Kuchler, 2011). Of these factors, the role of external governance is of crucial importance concerning the performance of MFIs (Thrikawala et al., 2017). However, governance, in the context of microfinance, has been remained a much ignored area (Benedetta et al., 2015), which could be due to the dearth of appropriate conceptual frameworks (Wale, 2015). There is a significant body of literature that focusses on testing the role of governance in the performance of MFIs. However, most of the scholars have focused on internal governance mechanisms (see among others, Bibi et al., 2018; Boubacar, 2018; Iqbal et al., 2019; Momanyi et al., 2018; Okoye & Siwale, 2017; Uchenna, 2017). Whereas, limited empirical evidence has been found to measure the effect of external governance mechanism on the performance of MFIs (e.g. El-Maksoud, 2016; Estapé-Dubreuil & Torreguitart-Mirada, 2015; Hartarska, 2005; Momanyi et al., 2018; Silva & Chávez, 2015; Thrikawala et al., 2017; Wale, 2015). Moreover, out of these studies, only a few scholars such as El-Maksoud, (2016), Mueller and Uhde (2009), and Thrikawala et al. (2017), have measured external governance using World Governance Indicators.

MFIs usually flourish in such countries having poor financial infrastructure; therefore, it is important to oversee the performance of MFIs operating in poor and transitional economies of the world (Vanroose & D'Espallier, 2013). However at present, limited empirical evidence, to the best of our knowledge, is found to check the role played by external governance mechanisms in the performance of MFIs operating in the Asian region. Moreover, the indirect effect of OSS is not yet discovered in the causal nexus between external governance and MFIs' performance. Thus, in response to the gap identified, this study aims to analyze the role of external governance in the performance of MFIs through OSS in the context of Asian NBMFIs.

## 2. LITERATURE REVIEW

Governance refers to the systems, procedures and practices (Kosgei et al., 2014) designed for managing and controlling the organizations (Momanyi et al., 2018; Ssekiziyivu et al., 2018). A good governance mechanism ensures the organizations work in an efficient manner to pursue goals and objectives set by top management (Al-Ahdal et al., 2020). In 1997, CGAP introduced the term Governance in the field of microfinance, referring to it as a system designed for the supervision of the board. Hartarska (2005) defined governance, concerning microfinance, as a tool designed to satisfy several stakeholders regarding the usage of funds for productive purposes.

There are two types of governance, namely, internal governance and external governance (Caudill et al., 2009). Internal governance is defined as a mechanism designed to safeguard the interest of internal stakeholders such as employees, board of directors and shareholders by protecting firms' assets (Bassem, 2009). Thus, internal governance ensures the survival

of MFIs in the long-run (Thomas, 2010). External governance, on the other hand, is defined as “the traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them.” (WGI, 2017)

The practice of governance has received substantial attention not only from an academic perspective but from the practitioners standpoint as well (Labie, 2001). As discussed earlier, the strong need for governance in microfinance arises due to grants and donations received by MFIs from various government and international institutions that necessitate effective utilization of resources (Hartarska & Mersland, 2012). Governance is considered as a crucial importance for MFIs because of its role in attaining corporate goals (Mersland & Strøm, 2009). Recent trends observed in microfinance, such as the transformation of NGOs to profit-oriented MFIs, also give rise to the need for an effective governance mechanism (Estapé-Dubreuil & Torreguitart-Mirada, 2015).

A good governance mechanism helps MFIs access larger clients keeping in line with the twofold objectives of sustainability and outreach (Shahzad, 2015). Lack of governance mechanism in firms, on the other hand, has resulted in failure of many MFIs (Bibi et al., 2018) as observed by microfinance crises in the Indian state of Andhra Pradesh (Taylor, 2011). Consequently, weak governance mechanisms within MFIs, in any country, give rise to the need to pursue external governance (Bassem, 2009). Lack of regulatory environment related to MFIs operating in a country is another reason for placing greater focus on external governance, which helps MFIs achieve superior performance (Bassem, 2009). Moreover, external governance also acts as a driving force for internal governance in MFIs because the government of such countries requires to implement such mechanisms at the firm level.

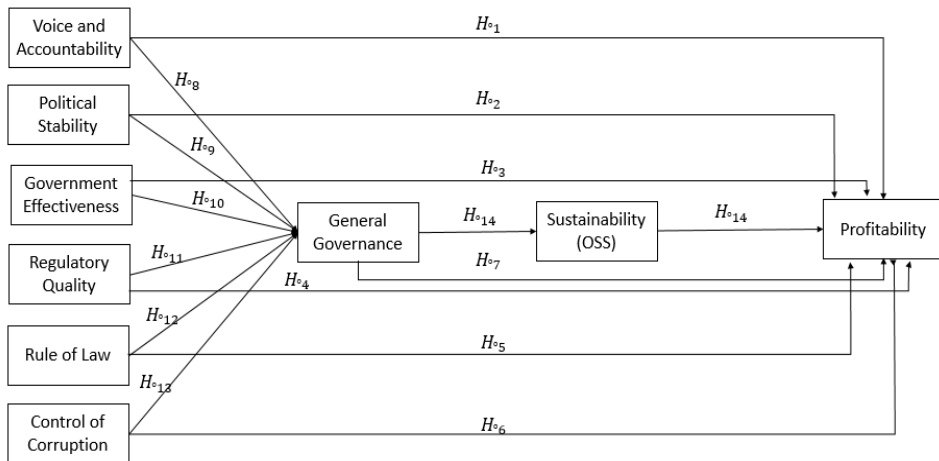
An efficient governance mechanism at the country level not only bring a positive image of government; but also encourage other stakeholders such as; donors, depositors, and shareholders to help MFIs in poverty eradication (Rock et al., 1998). As governance quality is a significant predictor of performance; therefore, the presence of an efficient governance mechanism, at the country level, increases investment opportunities; which ultimately result in greater access of finance to the poor (Mueller & Uhde, 2009).

There are a number of studies that have explored the link between performance and external governance. For example, Arun and Annim (2010) conducted a study to predict MFIs' performance on the criteria of external governance and found no influence of voice and accountability and political stability on the MFIs' profitability. Another research conducted by Muriu (2011) revealed the negative contribution of control of corruption, political instability and the weak rule of law on MFIs profitability operating in Africa. Likewise, Ahlin et al. (2011) also found an adverse effect on MFIs' performance because of corruption. Müller and Uhde (2013) found significant positive influence of rule of law and government effectiveness on MFIs' success. Sainz-Fernandez et al. (2015) also measured external governance by the proxies of political stability and control of corruption and they found a significant positive influence of political stability on the MFIs in crises, which revealed that the environment of political instability would lead to MFIs' growth. Control of corruption, on the other hand, was found to have a negative but statistically no significant

contribution to the MFIs' probability of crises. El-Maksoud (2016), while assessing MFIs performance concerning external governance, found no influence of any of six proxies on MFIs' profitability (return on assets) and sustainability (measured through OSS). However, for the return on assets (ROE) model, El-Maksoud (2016) found that government effectiveness and regulatory quality play a significant role in MFIs performance.

The above studies, whereby various scholars have checked the individual impact of different dimensions of governance on MFIs' performance, offer inconclusive findings. The combined effect of external governance has also been investigated by a limited number of scholars. For example Silva and Chávez (2015) created an index of external governance and checked MFIs performance during the period of financial crises of 2008-2009. They found that higher standard of governance in a country translates in terms of financially sustainable MFIs. Likewise, Thrikawala et al. (2017) developed index of external governance by adding three proxies namely; government effectiveness, rule of law and regulatory quality. They found significant positive influence of governance on sustainability of MFIs; and a positive but statistically insignificant relationship between governance and MFIs' profitability.

The review of existing literature reveals that empirical evidence to confirm the role of overall external governance in MFIs performance is lacking in certain aspects. There seems a particular dearth of studies in the context of Asia, the pioneer region for microfinance development. In addition, the majority of studies conducted to check the performance of MFIs concerning external governance have ignored the specific types of MFIs having different organizational and regulatory structures. To the best of our knowledge, there is a scarcity of empirical evidence focusing on different specific types of MFIs where the governance structure of each type of MFIs is different from other types. Additionally, the nexus between external governance and MFIs' profitability through mediating role of OSS is not yet examined, thus leading to another room for investigation. In response to the gap identified, this article has focused on assessing the mediating role of sustainability in the relationship between external governance and profitability of NBMFIs operating in the Asian region.



**Figure 2:** Conceptual Framework

Based on inconclusive findings derived from the literature review, we have developed following hypotheses:

$H_{\circ 1}$ : There is no significant role of voice and accountability in the profitability of NBMFIs.

$H_{\circ 2}$ : There is no significant effect of political stability on the profitability of NBMFIs.

$H_{\circ 3}$ : There is no significant role of government effectiveness in the profitability of NBMFIs.

$H_{\circ 4}$ : There is no significant role of regulatory quality in the profitability of NBMFIs.

$H_{\circ 5}$ : There is no significant effect of the rule of law on the profitability of NBMFIs.

$H_{\circ 6}$ : There is no significant effect of control of corruption on the profitability of NBMFIs.

$H_{\circ 7}$ : There is no significant effect of General Governance on the profitability of NBMFIs.

$H_{\circ 8}$ : OSS does not mediate the nexus between voice and accountability and profitability of NBMFIs.

$H_{\circ 9}$ : OSS does not mediate the nexus between political stability and profitability of NBMFIs.

$H_{\circ 10}$ : OSS does not mediate the nexus between government effectiveness and profitability of NBMFIs.

$H_{\circ 11}$ : OSS does not mediate the nexus between regulatory quality and profitability of NBMFIs.

$H_{\circ 12}$ : OSS does not mediate the nexus between the rule of law and the profitability of NBMFIs.

$H_{\circ 13}$ : OSS does not mediate the nexus between control of corruption and profitability of NBMFIs.

$H_{\circ 14}$ : OSS does not mediate the nexus between General Governance and profitability of NBMFIs.

### 3. DATA COLLECTION AND METHODS

MFIs related data have been collected from the MIX market, which gathers worldwide data, aiming to provide helpful information relating to microfinance to donors, investors, and other stakeholders (Ahlin et al., 2011). The data related to external governance have been extracted from WGI, which rates the respondents' perception about their country, which is in accord with extant literature (e.g. El-Maksoud, 2016; Muller & Uhde, 2013; Sainz-Fernandez et al., 2015; Silva & Chávez, 2015). WGI assigns a benchmark (maximum) score of +2.5 to those countries having excellent governance, while the score of -2.5 is given to poorly governed countries (Ahlin et al., 2011). The criteria for selecting a sample is as follows: (a) only NBMFIs listed in the MIX market are selected, (b) NBMFIs belonging to the Asian region are targeted, (c) out of listed Asian NBMFIs, only those are selected whose data is available from 2014-2018.

Based on the sampling criteria, we have gathered data from 49 NBMFIs listed in the MIX market belonging to seven Asian countries during 2014-2018. The other types of MFIs like NGOs and credit unions are ignored owing to the differences in their governance structure

and primary goals. Also MFIs like banks are not taken into consideration due to their limited presence in South Asian countries.

**Table 1:** Distribution of Sample Across Asian Region

Countries	NBMFIs
Pakistan	3
India	21
Kirghizstan	2
Azerbaijan	6
Kazakhstan	3
Armenia	5
Cambodia	9
Total	49

### 3.1 Estimation Methodology

We have employed Structural Equation Modelling (SEM) to assess the mediating role of OSS in the relationship between external governance and profitability of NBMFIs. Empirical evidence found in existing literature supports the use of a traditional approach proposed by Baron and Kenny (e.g., Khurshid et al., 2017; Lin et al., 2015). Baron and Kenny (1986) discovered the procedure for testing of mediator using stepwise regression. However, this traditional approach does not account for multiple mediators and complex models comprising multiple independent and dependent variables. To deal with complex statistical models, SEM has been widely used in social sciences as it can handle complex models. The application of SEM in secondary data is found to somewhat limited (e.g., Li, 2011).

Additionally, we have applied Principal Component Analysis (PCA) technique to bundle all dimensions of external governance into one composite index named General Governance. The purpose of creating an index is to increase the policy relevance, which is in line with existing literature (Asongu & Odhiambo, 2019). PCA is regarded as an appropriate statistical technique used to bundle highly correlated indicators in a smaller index named as principal component (PC), which reflect common variations in all the component dimensions (Asongu & Odhiambo, 2019).

**Table 2. Principal Component Analysis**

PC	First PC	Second PC	Third PC	Fourth PC	Fifth PC	Sixth PC	Proportion	Cum. Prop	Eigenvalue
<b>VA</b>	0.461	-0.202	0.453	0.554	-0.305	0.376	0.616	0.616	3.695
<b>PS</b>	-0.185	0.638	0.730	-0.094	0.067	-0.114	0.275	0.891	1.649
<b>GE</b>	0.464	0.246	-0.095	-0.661	-0.431	0.303	0.062	0.953	0.374
<b>RQ</b>	0.116	0.701	-0.501	0.477	-0.006	0.131	0.034	0.987	0.205
<b>ROL</b>	0.511	0.010	0.055	-0.115	0.835	0.161	0.007	0.994	0.044
<b>CC</b>	0.513	0.023	0.002	0.074	-0.142	-0.843	0.006	1.000	0.033



**Table 3. Variables Description**

<b>Variables</b>	<b>Abbreviations</b>	<b>Nature</b>	<b>Description</b>	<b>Reference</b>	<b>Mean</b>
Return on Assets	ROA	Interpreted variable	Profit after taxes/total assets	Rashid et al. (2020)	2.273
Return on Equity	ROE	Interpreted variable	Profit after taxes/total equity	Rashid et al. (2020)	8.591
Operational Self-Sufficiency	OSS	Intervening Variable	Total operating revenue/(financial expenses + operational costs + loss on loan expenses)	Silva and Chávez (2015)	129.425
Voice and Accountability	VA	Explanatory Variable	“The degree to which citizen of a country have right to elect their governments and have freedom to express their views.”	Kaufmann et al. (2011)	-0.425
Political Stability	PS	Explanatory Variable	“The extent to which government can be subverted by unfair means, such as; law and order situation, terrorism, and political violence.”	Kaufmann et al. (2011)	-0.777
Government Effectiveness	GE	Explanatory Variable	“Measures the service quality provided to public and the extent to which government is committed towards policy formulation and its implementation.”	Kaufmann et al. (2011)	-0.317
Regulatory Quality	RQ	Explanatory Variable	“The extent to which government formulates and implements comprehensive policies for the development of private sector.”	El-Maksoud, (2016)	-0.353
Rule of Law	ROL	Explanatory Variable	“The degree to which citizens of a country follows the fair and predictable rules and regulations; such as contract enforcement, quality of police and judiciary system.”	Silva and Chávez (2015)	-0.452
Control of Corruption	CC	Explanatory Variable	“The degree to which government of a country exerts public power for its private gain and also indulge in mega corruption scandals.”	Kaufmann et al. (2011)	-0.718
External Governance	EG	Explanatory Variable	Measures the overall Governance structure of a country calculated through PCA.	PCA	

Table 4. Structural Equation Modelling (SEM)-ROA

	ROA	OSS	ROA	OSS	ROA	OSS	ROA	OSS	ROA	OSS	ROA	OSS
OSS	0.098***		0.098***		0.093***		0.098***		0.094***		0.096***	
VA	0.111	-5.545*										
PS			0.195	-0.719								
GE					-2.299**	-29.39***						
RQ							-0.196	-33.28***				
ROL									-1.578**	-21.65***		
CC											-1.320	-24.49***
Constant	-10.39***	127.1***	-10.26***	128.9***	-10.51***	120.1***	-10.44***	117.7***	-10.66***	119.6***	-30.32***	111.8***
Log Likelihood	-2255.863***		-2213.059***		-2036.406***		-1975.542***		-2083.527***		-2028.565***	
Mediation	Full		No		Partial		Full		Partial		Full	

Note. \*\*\*, \*\*, and \* denotes significant at 1%, 5%, and 10% levels respectively.

Table 5. Structural Equation Modelling (SEM)-ROE

VARIABLES	ROE	OSS	ROE	OSS	ROE	OSS	ROE	OSS	ROE	OSS	ROE	OSS
OSS	0.302***		0.294***		0.272***		0.284***		0.285***		0.291***	
VA	3.694*	-5.545*										
PS			0.874	-0.719								
GE					-10.17**	-29.39***						
RQ							-6.969	-33.28***				
ROL									-3.98	-21.65***		
CC											-1.773	-24.49***
Constant	-28.90***	127.1***	-28.76***	128.9***	-29.85***	120.1***	-30.61***	117.7***	-30.06***	119.6***	-30.32***	111.8***
Log Likelihood	-2645.358***		-2604.343***		-2428.256***		-2366.171***		-2476.283***		-2420.653***	
Mediation	Partial	Partial	No	Partial	Partial	Full	Full	Full	Full	Full	Full	Full

Note. \*\*\*, \*\*, and \* denotes significant at 1%, 5%, and 10% levels respectively.

#### 4. FINDINGS AND DISCUSSION

Table 4 and Table 5 discuss the results of SEM employed to check the nexus between external governance and firms' profitability through the intervening role of operational self sustainability (OSS). The findings imply that OSS fully or partially mediates the nexus of various dimensions of external governance, except political stability (PS), with NBMFIs' profitability (measured in terms of ROA and ROE). The direct effect of voice and accountability (VA) on profitability is found statistically insignificant at any conventional level, which is supported by existing literature (e.g., Arun & Anim, 2010); thus, we fail to reject  $H_1$ (°1). However, the indirect relationship between VA and ROA through OSS is found negative and significant, leading to rejection of  $H_1$ (°8). This finding implies that freedom of expressing citizen's views in a country can result in lowering the level of OSS; thus resulting in an adverse effect on the profitability of NBMFIs.

No influence of political stability (PS) has been determined, through this study, on the profitability of NBMFIs, which fails to reject  $H_2$ (°2). Moreover, OSS does not mediate the nexus between PS and profitability of NBMFIs which also fails to reject  $H_2$ (°9). This implies that politically instable environment does not harm the sustainability of NBMFIs which is in agreement with existing literature (e.g., Arun & Anim, 2010). The direct nexus between government effectiveness (GE) and profitability is found significant and negative, in line with a current study of Liaqat (2018); thus,  $H_3$ (°3) is rejected. The indirect nexus between GE and profitability through OSS is found significant and negative, which rejects  $H_3$ (°10) and further confirms that provision of quality products and services and effective implementation of policies can translate in terms of greater access to finance to the poor. Thus, the demand for NBMFIs loans gradually decreases in effectively managed countries, which may harm their profitability through OSS.

Moreover the study suggests that regulatory quality (RQ) does not directly influence the profitability of NBMFIs, which fails to reject  $H_4$ (°4) and is in line with the study of El-Maksoud (2016). However, the nexus between RQ and profitability is significant negative through the intervening role of OSS, which rejects  $H_4$ (°11) and implies that effective policy formulation and implementation for developing and promoting private sector result in enhancing entrepreneurial activities. This, in turn, restricts the demand for loans from NBMFIs, lowering down the OSS level, which ultimately affects the profitability of such institutions.

The dimension of rule of law (ROL) has significant influence and is favourable for profitability (in terms of ROA) of NBMFIs, which rejects  $H_5$ (°5) and is consistent with existing literature (Muriu, 2011). The direct effect of ROL on ROE of NBMFIs, on the other hand, is found not statistically significant at any conventional level, which fails to reject  $H_5$ (°5) and is in line with the study of El-Maksoud (2016). However, OSS is found to significantly and negatively mediate the relationship between ROL and profitability of NBMFIs, which reject  $H_5$ (°12). This implies that for Asian countries having less formulation of rules and regulations can result in delaying the matters like contract enforcement and judiciary system; which increase poverty level of that country. Such a scenario increases the demand for loans from NBMFIs, which in turn, may have a favorable influence on their OSS and profitability.

Another finding of the study is related to control of corruption (CC), the final dimension of external governance, which does not directly influence the profitability of NBMFIs; thus implying failure to reject  $H_0(6)$  and is in agreement with existing literature (El-Maksoud, 2016). However, the nexus between CC and profitability is significant and negative through the intervening role of OSS, which rejects  $H_0(13)$  and is in agreement with existing literature (Muriu, 2011). The reason for flourishing of the microfinance sector in developing countries is most probably due to higher poverty levels which exist because of corruption. Moreover, the demand for microfinance loans increases in corrupt societies, which have a favourable influence on profitability through the intervening role of OSS.

**Table 6:** Structural Equation Modelling (SEM)- GG-Profitability

VARIABLES	ROA	OSS	ROE	OSS
<b>OSS</b>	0.094***		0.285***	
<b>GG</b>	-0.622**	-8.536***	-1.569	-8.536***
<b>Constant</b>	-9.949***	129.4***	-28.26***	129.4***
<b>Log-</b>		-2311.543***		-2704.298***
<b>Likelihood</b>				
<b>Mediation</b>		Partial		Full

*Note.* \*\*\*, \*\*, and \* denotes significant at 1%, 5%, and 10% levels respectively.

Using PCA, we have bundled all dimensions of external governance into an index named GG, and then their role in the profitability of NBMFIs has been examined through OSS. The findings show that GG has a significant negative contribution in ROA of NBMFIs, which rejects  $H_0(7)$  and implies that demand for microfinance services usually flourish in countries having a poor level of governance. Moreover, the relationship between GG and ROA is mediated through OSS, which rejects  $H_0(14)$  and thus implies that GG contributes towards OSS of NBMFIs, that translates into unfavourable influence on ROA. The direct nexus between GG and ROE is found negative and insignificant, which fails to reject  $H_0(7)$  and implies no relationship between GG and ROE at any conventional level of significance. However, the indirect nexus between GG and ROE is negative and significant under mediating role of OSS. The findings imply that OSS fully mediates the relationship between GG and ROE, so  $H_0(14)$  is rejected.

## 5. CONCLUSION

Microfinance is a poverty eradication tool that is designed to facilitate the underserved segments of society. According to the Industrial Organizational view, this sector is greatly influenced by the external environment in which it operates. Within a country-level context, external governance plays a crucial role in the performance of MFIs. However, we have observed limited empirical evidence to gauge the relationship as mentioned earlier, particularly in the context of Asia. Therefore, in response to the gap identified, this study is conducted to examine the causal nexus between external governance and profitability of NBMFIs through operational self-sustainability (OSS) as a mediator. For this, we collected data from 49 Asian NBMFIs listed at MIX market for the period ranging from 2014-2018. To check the intervening role of OSS in the relationship between external governance and profitability, we have applied the SEM technique. The findings reveal all the dimensions

of external Governance, except political stability, significantly influence the profitability of NBMFIs and OSS fully or partially mediate in the aforementioned relationships. The index of General Governance (GG), developed using principal component analysis (PCA), also confirms the mediating role of OSS in the relationship between GG and the profitability of NBMFIs.

The empirical findings derived from SEM has important implications for various stakeholders especially for academia, policymakers and society at large. For academia, the results encourage potential researchers to explore the different aspects of external governance, which are crucial to NBMFIs performance. For NBMFIs, the findings indicate that microfinance usually flourishes in countries having a poor level of governance. So, in line with the results of our study, MFIs, especially NBMFIs, should consider the governance structure of a country before starting their operations. Moreover, from a societal point of view, a higher level of governance may increase the employment opportunities and living standard of the underserved segment of the society, thus reducing their dependence on microfinance loans.

## 6. LIMITATIONS AND FUTURE DIRECTIONS

Despite our best efforts, certain deficiencies have been observed including small sample size as we have focused on the Asian region and considered only those NBMFIs listed in MIX market. Therefore, it is recommended that potential researchers consider non-listed NBMFIs as well in their future research. Additionally, we have examined the role of external governance in profitability of NBMFIs performance, and excluded the internal governance mechanisms. Future research may consider both internal and external governance mechanism and compare their role in NBMFIs' performance. Finally, this study has focused on NBMFIs; potential scholars can analyse the role of external governance in the performance of microfinance banks (MFBs) as well.

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