The purpose of this study is to structure a model of relationships among barriers in the implementation of CG in Pakistan. It also points out a key barrier in embarking on the regime of CG. The design of research consists of a literature review, data collection and analyses. Modeling methodology entails ISM coupled with MICMAC. Findings revealed that “lack of investigation about the rights of minority shareholders” is the most critical barrier since this occupies the bottom of the model. Whereas, barriers namely “basic shareholders’ rights are not often protected, minority shareholders’ rights are often violated, lack of autonomy on the part of the auditors and rules requiring equity ownership disclosure are not followed” are least critical since they occupy the top of the model. MICMAC analysis revealed that three barriers fall in the independent quadrant, six in the linkage, six independent and two in autonomous. This study is helpful to regulators and corporations to successfully embark on the regime of CG.

Key Words: Barriers, Corporate Governance, ISM, MICMAC, Pakistan, Shareholders.

Introduction

For the last four decades corporate world is striving to embark on the regime of Corporate Governance (CG) but despite a lot of efforts by even technologically and educationally advanced countries could not successfully implement the principles of CG. Part of the principles which have been implemented by regulators could not give fruitful results. CG has been implemented both by way of normative laws (e.g. Sir Cadbury Report) and legislative laws (e.g. Sarbanes-Oxley Act 2002) but corporate scandals, crimes or failures could not be put to halt. Rather the corporate scandals are making mouths at advocates of CG e.g. WorldCom, Tyco, Satyam Computers, Sanlu, Parmalat, South Health, etc. A lot of efforts have been put by governments at the country levels, enormous efforts have been surpassed at the level of international institutions e.g. United Nations, International Labor Organization, OECD, European Union, etc. and at corporate levels particularly in form of principles and codes of CG. Much research work has also surpassed but still, there is a multitude of barriers to successfully embark on the regime of CG in true letter and spirit (Shamsi et al., 2013). Issues and barriers in the implementation of CG in general and with special reference to developing countries remained active and current topics of research agenda (Dayanandan, 2013). Arslan and Zaman (2014) conducted a study envisaged on thirty-one low-income countries including Pakistan. It concluded that corruption, lack of finance, crime, gender and infrastructure-related barriers are major factors impeding the implementation of CG.

Pakistan is also attempting to ride on the train of CG. On this behalf, a code of Corporate Governance 2002 was coined and implemented which was subsequently reviewed and changed as Code of Corporate Governance 2012, 2017 and 2019. This code has been implemented in Pakistan by way of making it part of listing regulations of the Pakistan Stock Exchange. Implementation of this code is again not a success story. There is number of corporate failures despite the implementation of the code of CG in Pakistan e.g. Mohib Group, Sunshine Cloth. In fact, there are many problems faced by stakeholders to successfully board on the regime of CG. In this context, considerable efforts have been made by the regulators and at the same time, huge claims for the achievement of milestones have also been made. The myths of CG have also been explored and unveiled by a few of the authors in the context of Pakistan (Lund-Thomsen, 2008). There is still room to further investigate particularly that of hindrances, problems, barriers or issues of implementation CG principles. There is a dearth of
research studies investigating the CG framework is holistic, comprehensive and integrative fashion (Filatotchev & Nakajima, 2014). Hence, the rationale of the study is to explore the issue rather seriously and comprehensively in a different manner. It is important to determine what are the barriers in the successful implementation of principles of CG and which of them should be dealt on top priority? which of them are comparatively less important? and how are they related? are the basic questions to be investigated. The study is important for: regulators to set policy priorities, management of corporations for setting implementation policies in order to obtain desired results, society at large in form of safety and protection of investment made by them and by way of understanding the dynamics of better corporate citizenship. Therefore, objectives of this study are: i) to identify key barriers in implementation of CG, ii) to rank and determine interactions among the barriers of implementation of CG in Pakistan, iii) to uncover possible linkages among barriers, iv) to discuss how the structural model of CG barriers is helpful to regulators and corporations and v) to propose a framework for future quantitative research. The remaining part of the paper consists of a literature review, solution methodology, results & discussion and conclusion.

Literature Review

CG is a hot topic since 1991 right after the foreclosure of the Bank of Credit and Commerce International (BCCI). This scam is considered as a wake-up call for CG. The literature on CG is rich and covers many related issues in general but certain aspects of CG are still less explored. Barriers in implementing CG is also research worthy area, regarding which this study has accounted for germane studies in this section. Argentino et al. (2017) conducted a study investigating barriers and difficulties in the implementation of good CG practices using NVIVO and reached to the conclusion that barriers regarding CG practices need to be explored andexploited rather thoroughly. Yuen and Lim (2016) asserted that CSR is one of the important perspectives of CG and there is number of barriers to implementing CSR in true letter and spirit. It was an exhaustive statistical study envisaged on 600 shipping companies in Singapore and the results of this study are fairly generalizable to other industries. Faisal (2010) argued that there is a multitude of barriers to implementing CSR, especially in supply chains. It developed a structural model and inferred some priorities and policy recommendations. Zhang et al. (2019) bolstered that typical barriers in implementing CSR include lack of capability, scarce resources, lack of governmental supports, lack of CSR awareness & knowledge and non-integration of interests of stakeholders. Babatunde and Perera (2017) found that higher risk & cost, issues relating to institutional capacity & governance, stern disclosure requirements, trivial bond markets and difficulties to absorb changes are primary barriers in a public-private partnership. Cahn (2003) proclaimed that in developing countries, corrupt, inefficient and dishonest governments is a critical issue that exacerbates the problem of CG. Wanyama (2006) delineated that people who are best placed are in apposition to implement meaningful CG practices but unfortunately it is not so because of the individuals occupying various positions of responsibility manipulated systems to their own advantage. Armitage et al. (2017) stated that governance issues at firms’ level are entrenched in country-specific systems that are influenced by politico-legal and socio-cultural factors. Vaughn and Ryan (2006) asserted that recent onslaught of corporate scandals gave a wake-up call to the world regarding the profound impact of CG on the global economy. It is an area of particular concern for developing economies. The study focused on CG initiatives in South Africa with special attention to the country’s CG collapse in 1994 concluded that there is a severe need to remove implementation barriers and revamp the CG models. Boyd et al. (2017) emphasized that research in the area of governance is a relatively recent phenomenon and research methodology in CG research encompasses a wide variety of techniques and approaches. Kim and Kim (2008) argued that chaebol leads to corporate value destruction that ultimately leads to financial crises. It further concluded that governance reform measures improved corporate transparency however certain CG measures have been unsuccessful or had undesirable side effects. Aguilera and Desender (2012) asserted that there are certain methodological and research design issues that need to be taken into account in future CG research. Lenssen et al. (2011) revealed that lack of resource allocation followed by complexity and difficulty in implementation is impeding CSR in India. Goyal and Kumar (2017) also identified and ranked barriers in CSR in the Indian manufacturing sector using expert opinion and concluded that lack of funds allocation and passive attitude of consumers towards CSR are the most significant hindrances. It also found that lack of commitment of top management, knowledge and skills for CSR implementation are still other significant barriers. Sweeney (2007) in the context of CSR in Ireland revealed that barriers in SMEs and large firms are a bit different. Kumar and Zattoni (2019) found that there is a flood of both qualitative and quantitative studies envisaged on a variety of theories, models, frameworks and techniques, exploring the issues of CG around the world. Sikka and Sittle (2017) proclaimed that the shareholder primacy model is dysfunctional and it is a seed of crises therefore it should be investigated carefully. Bello (2016) stated that a fundamental issue of concern in Nigerian government organizations is the implementation of CG. Recent CG reforms have been challenged by the ill-planned proliferation of codes and monitoring difficulties. DeTienne and Lewis (2005) investigated that CSR disclosure continually receives more attention. Sobol (2008) argued that the lack of recognition of the vitality of governance for sustainability and development is the main issue in Poland. Mahzan and Yan (2014) asserted that good governance is still deemed important hence a separate set of CG frameworks for SMEs can work rather better. Okelaham (2004) established that there are several challenges like corruption and mismanagement which need to be addressed so as to improve CG in Africa. Kusyk and Lozano (2007) asserted that SMEs are mostly overlooked in theory building particularly that of governance.
Okeahalam and Akinboade (2003) found that the majority of corporate failures are attributed to the derelictions of efficient CG. El-Masry et al. (2008) posited that the fate of the CG system in China is largely dependent on government-owned shareholders because the ownership in China is concentrated in the hands of these shareholders. This study argued that it is the call of the day to rethink the role of government and restrict the hands of shareholders controlling the equities. It further asserted that the independence of the board of directors, supervisory board and sub-committees of the board need to be enhanced. It also needs to be aligned with the interest of other stakeholders particularly that of managers. Kirkbride et al. (2009) emphasized the need to provide effective protection in law to disgruntled minority shareholders. Brickley and Zimmerman (2010) proclaimed that past researchers failed to develop a comprehensive model and understanding of the complex topic of CG. Therefore, conceptual and empirical impediments require serious and rather rigorous attention. Sun et al. (2017) concluded that there is a negative effect of CG reforms on the risk of a crash in stock prices which is more pronounced in firms with a high level of tunneling prior to the reforms which indicate that reforms induce less tunneling. Okpara (2010) conducted a study in Nigeria and explored that exploitation of the rights of shareholders, fragile law enforcement systems, lack of commitment of the board of directors, feeble monitoring, non-compliance with rules & regulations and lack of sufficient disclosure & transparency are major constraints that hamper implementation of CG.

Solution Methodology

This study follows interpretivism as a research philosophy with the inductive approach. The overall design of the study consists of a thorough literature review, data collection by way of surveying experts of CG and data analyses using two different methods of structural modeling. It is a cross-sectional study which uses ISM in combination with MICMAC. ISM and MICMAC are used in a wide variety of areas as methodologies supplemental to each other (Sushil, 2017; Warfield, 1973). These methodologies give the opportunity to gain a thorough understanding of relationships among factors (Chidambaranathan et al., 2009). The authors proceeded stepwise to apply the methodologies firstly barriers are identified through the discourse of literature, secondly, the ISM procedure is applied and thirdly MICMAC analysis is performed.

Identification of Barriers

Factors related to some issues are identified by using a wide variety of different methods. Commonly used methods for identification of factors are interview content analysis (Xiao, 2018), idea engineering workshop/brainstorming (Kumar et al., 2013), case studies (Li et al., 2019); Delphi method (Bhosale & Kant, 2016), meta-analysis (Lohaus & Habermann, 2019), exploratory factor analysis (Li & Yang, 2014), authors’ presumption (Lohaus & Habermann, 2019), expert opinion (Dhochak & Sharma, 2016) and literature review (whether it is a systematic, anecdotal or purposive sampling/empirical evidence from single-single studies) (Dhochak & Sharma, 2016; Lohaus & Habermann, 2019). A list of seventeen barriers extracted by Okpara (2011) has been adopted for this study. It is pertinent to mention that Okpara (2011) is an exploratory study regarding barriers, issues and implications of implementation of CG in developing countries. Although the study has been conducted in the context of Nigeria the factors are fairly generalizable to other developing countries. A comprehensive list of barriers was generated through running factor analysis on primary data collected from the industry. The aforementioned list is detailed in Table 1.

Table 1. List of Barriers adopted from Okpara (2011)

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Basic shareholders’ rights are not often protected</td>
</tr>
<tr>
<td>2</td>
<td>Minority shareholders’ rights are often violated</td>
</tr>
<tr>
<td>3</td>
<td>Preferential treatment is often given to large shareholders</td>
</tr>
<tr>
<td>4</td>
<td>Aggrieved shareholders often do not have a recourse</td>
</tr>
<tr>
<td>5</td>
<td>Weak monitoring and enforcement of corporate laws</td>
</tr>
<tr>
<td>6</td>
<td>Board members are not committed to their responsibilities</td>
</tr>
<tr>
<td>7</td>
<td>Rules and regulations are often violated</td>
</tr>
<tr>
<td>8</td>
<td>Rules on independent board members are not followed</td>
</tr>
<tr>
<td>9</td>
<td>Laws and rules on stock market listing are violated</td>
</tr>
<tr>
<td>10</td>
<td>Lack of investigation on non-compliance with laws</td>
</tr>
<tr>
<td>11</td>
<td>Lack of investigation about mismanagement</td>
</tr>
<tr>
<td>12</td>
<td>Lack of investigation about rights of minority shareholders</td>
</tr>
<tr>
<td>13</td>
<td>Lack of actions against auditors’ fraud</td>
</tr>
<tr>
<td>14</td>
<td>Lack of equal access to information for all shareholders</td>
</tr>
<tr>
<td>15</td>
<td>Insider trading laws, rules, and regulations are ignored</td>
</tr>
<tr>
<td>16</td>
<td>Lack of autonomy on the part of the auditors</td>
</tr>
<tr>
<td>17</td>
<td>Rules requiring equity ownership disclosure are not followed</td>
</tr>
</tbody>
</table>
This study uses ISM as a solution methodology that is workable with as few as 5 elements and as more as 90 elements (Li et al., 2019; Sushil, 2017). This study is based on 17 barriers that are the ideal range of ISM studies in general (Sushil, 2017). However, it is also critical to recognize the stakeholders of CG for finalizing the representative panel of experts. The stakeholders include regulators, management, minority shareholders, majority shareholders, boards of directors, investors, the international community, employees and academia/researchers. Therefore, the panel of experts has been recruited very carefully based on sufficiency, adequacy and relevance of their qualifications, experience and exposure from within the stakeholders.

ISM is visible, well defined, graphical model representation using reachability and transitive inferences through matrix transformation. It is applied in conundrum situations where the prior theoretical framework is confusing and desired results are not being generated. Ideally, ISM uses data collected from experts. There are scientific methods to formulate the panel of experts on the basis of predetermined criteria and to elicit the data from them. A common method of formulating the panel is to select the experts from within the industry on the basis of their theoretical knowledge and practical experience regarding the phenomenon. There are many methods of eliciting data like Delphi, Brainstorming, NGT, RGT, Matrix-type questionnaire, etc. This study used a matrix type questionnaire in combination with a one-on-one, face-to-face in-depth interview and prepared \( \frac{n(n-1)}{2} \) matrix applying approval voting on alternatives (i.e. \( V: \text{i} \rightarrow \text{j}, A: \text{i} \leftarrow \text{j}, X: \text{i} \leftrightarrow \text{j} \) and \( O: \text{i} \Rightarrow \text{j} \)) for every pair of relations using \( i \) leads to \( j \) (Cai & Xia, 2018). In this way, a special matrix type questionnaire was designed to collect the data from experts (Alawamleh & Popplewell, 2011; Trigunarsyah, & Parami Dewi, 2015).

### Panel of Experts

This study follows a non-random technique of sampling consisting of people having expertise relating to CG (Ranjarb et al., 2012). The logic of taking data from experts is adopted in view of the conundrum situation. It is important to recruit appropriate experts because the quality of experts is more important than quantity (Clayton, 1997; Shen et al., 2016). Size of the panel also varies on the continuum of homogeneity and heterogeneity of respondents i.e. 15-30 experts are suitable if they have the homogeneous type of experience whereas, 5-10 experts are suitable if they have the heterogeneous type of experience (Clayton, 1997; Khan & Khan, 2013). The experts are recruited according to criteria like i) theoretical knowledge of CG, ii) minimum 10 years of practical experience in implementation of principles of CG, iii) expert knowledge i.e. formal training/education on CG, iv) having working experience in authoritative national or international organizations. The size of the panel consisted of 18 homogeneous experts on CG. Due to the face-to-face and one-on-one technique of data eliciting, the authors had the opportunity of piloting and developing rapport for briefing experts on the issue first. Experts were approached with pre-appointments in their office settings. It took more than 2 months to gather data because most of the experts responded on questionnaires after 3 to 4 preliminary discussion rounds. Data were converted into the aforementioned matrix. The panel of experts was involved at three stages i.e. verification of barriers qua reasonableness & representativeness, the establishment of contextual relationships among barriers and review of the final model to check logical, theoretical, conceptual or directional inconsistencies.

**ISM:** Procedure of ISM was applied as provided in Attri et al. (2013); Thakkar et al. (2008); Warfield (1973). ISM proceeds stepwise:

**Step 1: Identification of barriers:** The factors (barriers in this case) have been adopted (Table 1), hence this step has already been performed as a part of literature review.

**Step 2: Development of Structural Self-Interaction Matrix (SSIM):** The SSIM has been prepared using classical rules (i.e. \( V: \text{i} \rightarrow \text{j}, A: \text{i} \leftarrow \text{j}, X: \text{i} \leftrightarrow \text{j} \) and \( O: \text{i} \Rightarrow \text{j} \)) using \( i \) leads to \( j \) (Table 2).

### Table 2. Structural Self-Interaction Matrix

<table>
<thead>
<tr>
<th>Sr.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>X</td>
<td>O</td>
<td>A</td>
<td>X</td>
<td>O</td>
<td>A</td>
<td>X</td>
<td>A</td>
<td>O</td>
<td>A</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>A</td>
<td>O</td>
<td>A</td>
<td>O</td>
<td>A</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>O</td>
<td>A</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>A</td>
<td>O</td>
<td>A</td>
<td>O</td>
<td>A</td>
<td>O</td>
<td>A</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>A</td>
<td>A</td>
<td>O</td>
<td>O</td>
<td>A</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>A</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A</td>
<td>X</td>
<td>V</td>
<td>V</td>
<td>X</td>
<td>O</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>V</td>
<td>O</td>
<td>O</td>
<td>A</td>
<td>O</td>
<td>O</td>
<td>V</td>
<td>V</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
Step 3: Development of the reachability matrix: Following rules were used to convert the SSIM into reachability matrix (Table 3). Establishing the contextual relationship between factors

Rules for questionnaire/SSIM: \( V: i \rightarrow j \quad A: i \leftrightarrow j \quad X: i \leftrightarrow j \quad O: i \leftrightarrow j \)

Rules for reachability matrix:

\[
\begin{align*}
\text{for } i-j \text{ entry} & \quad 1 & 0 & 1 & 0 \\
\text{for } j-i \text{ entry} & \quad 0 & 1 & 1 & 0
\end{align*}
\]

Table 3. Initial Reachability Matrix

<table>
<thead>
<tr>
<th>Sr.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

By removing the transitivity from within the initial reachability matrix final reachability matrix has been prepared (Table 4).

Table 4. Final Reachability Matrix

<table>
<thead>
<tr>
<th>Sr.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1*</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>1*</td>
<td>0</td>
<td>1*</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1*</td>
<td>0</td>
<td>1*</td>
</tr>
<tr>
<td>9</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1*</td>
<td>0</td>
<td>1*</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>17</td>
</tr>
</tbody>
</table>
Step 4: Partitioning the reachability matrix: The reachability matrix has been partitioned according to the partitioning rules as provided in Atri et al. (2013); Thakkar et al. (2008); Warfield (1973). Summary of the iterations is given as Table 5.

Table 5. Summary of Iterations

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Reachability Set</th>
<th>Antecedent Set</th>
<th>Intersection Set</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1,2</td>
<td>1,2,3,4,5,6,7,8,9,10,11,12,13,14,15</td>
<td>1,2</td>
<td>I</td>
</tr>
<tr>
<td>2</td>
<td>1,2</td>
<td>1,2,3,4,5,6,7,8,9,10,11,12,13,14,15</td>
<td>1,2</td>
<td>I</td>
</tr>
<tr>
<td>16</td>
<td>13, 16</td>
<td>5,7,10,11,13,16</td>
<td>13,16</td>
<td>I</td>
</tr>
<tr>
<td>17</td>
<td>17</td>
<td>5,6,7,8,9,10,11,12,17</td>
<td>17</td>
<td>I</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3,5,6,7,8,9,10,11,12,13,14,15</td>
<td>3</td>
<td>II</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>4,5,6,7,8,9,10,11,12,13</td>
<td>4</td>
<td>II</td>
</tr>
<tr>
<td>14</td>
<td>14,15</td>
<td>5,6,7,8,9,10,11,14,15</td>
<td>14,15</td>
<td>III</td>
</tr>
<tr>
<td>15</td>
<td>14,15</td>
<td>5,6,7,8,9,10,11,12,13,14,15</td>
<td>14,15</td>
<td>III</td>
</tr>
<tr>
<td>5</td>
<td>5,6,7,8,9,10,11,12,13</td>
<td>5,6,7,8,9,10,11,12,13</td>
<td>5,6,7,8,9,10,11,12,13,14</td>
<td>IV</td>
</tr>
<tr>
<td>7</td>
<td>5,6,7,8,9,10,11,12,13</td>
<td>5,6,7,8,9,10,11,12,13</td>
<td>5,6,7,8,9,10,11,12,13</td>
<td>IV</td>
</tr>
<tr>
<td>8</td>
<td>5,6,7,8,9,10,11,12,13</td>
<td>5,6,7,8,9,10,11,12,13</td>
<td>5,6,7,8,9,10,11,12,13</td>
<td>IV</td>
</tr>
<tr>
<td>9</td>
<td>5,6,7,8,9,10,12,13</td>
<td>5,6,7,8,9,10,11,12,13</td>
<td>5,6,7,8,9,10,12,13</td>
<td>IV</td>
</tr>
<tr>
<td>10</td>
<td>5,6,7,8,9,10,11,12,13</td>
<td>5,6,7,8,9,10,11,12,13</td>
<td>5,6,7,8,9,10,11,12,13</td>
<td>IV</td>
</tr>
<tr>
<td>11</td>
<td>5,6,7,8,9,10,11,12,13</td>
<td>5,6,7,8,9,10,11,12,13</td>
<td>5,6,7,8,10,11,12,13</td>
<td>IV</td>
</tr>
<tr>
<td>13</td>
<td>12,13</td>
<td>6,12,13</td>
<td>12,13</td>
<td>V</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>6,12</td>
<td>6</td>
<td>VI</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>VII</td>
</tr>
</tbody>
</table>

Step 5: Development of conical matrix: Conical matrix have been prepared according according to the procedure devised by Warfield (1973) Table 6.

Table 6. Conical Matrix

<table>
<thead>
<tr>
<th>Sr.</th>
<th>1</th>
<th>2</th>
<th>16</th>
<th>17</th>
<th>3</th>
<th>4</th>
<th>14</th>
<th>15</th>
<th>5</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>13</th>
<th>6</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1*</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>1*</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1*</td>
<td>1</td>
<td>0</td>
<td>1*</td>
<td>1*</td>
<td>0</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>1*</td>
<td>1*</td>
<td>0</td>
<td>1*</td>
<td>1*</td>
<td>0</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td>1*</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>1*</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>1*</td>
<td>1*</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1*</td>
<td>1*</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1*</td>
<td>1*</td>
<td>0</td>
<td>1*</td>
<td>1*</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>1*</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Step 6 & 7: Development of digraph and Development of ISM model: The digraph and/or the model has been prepared according to the rules entailed in Warfield (1973).
Step 8: Check for conceptual inconsistency: The experts were approached again to check the conceptual inconsistencies (if any) following procedure devised by Raeesi et al. (2013) and Vasanthakumar et al. (2016). The experts reviewed model and suggested few minor changes in contextual relations on the basis of logic which were incorporated.

MICMAC Analysis

It is a structural methodology which analyzes the structure of the issues using elementary concepts of Boolean algebra (Godet, 1986). Objective of MICMAC is to point out key factors. This methodology is commonly use to supplement the results of ISM by classifying factors into four quadrants namely dependent, independent, linkage and autonomous.

Figure 1: ISM

Figure 2: MICMAC Analysis

It is meaningful to apply MICMAC analysis in combination with ISM since it can supplement results and adds value for readers (Godet, 1986). Analysis was performed according to standard procedure and represented as Figure 2.

Results and Discussion

Results: Since the regulators are in process to ride on the regime of CG and are facing a wide variety of issues, therefore, this study is very important because it deals with barriers in implementation of CG. Although lot of efforts have already been made by the stakeholders and lot of claims of achievement have also been pretended regarding CG but still many countries
could not successfully embark on regime of CG. There is sever need for investigation of myths of CG. Authors, therefore, attempted to structure a model of relationships among barriers in implementation of CG in Pakistan for which literature discourse has been opted for identification of barriers, whereas, ISM for modeling and MICMAC for analysis. This study is equally useful for all stakeholders particularly in Pakistan; however, the results of the study are fairly generalizable for developing countries. While during the survey of literature a comprehensive list of barriers was found in Okpara (2011), therefore, same was adopted for the purpose of the study. The results of ISM show that the most important factor is “Lack of investigation about rights of minority shareholders (12)” since it occupies bottom of the model as a result of iterations. It has extremely huge effect on all others factors and requires top priority to deal with. Whereas, barriers namely: Basic shareholders’ rights are not often protected (1), Minority shareholders’ rights are often violated (2), Lack of autonomy on the part of the auditors (16) and Rules requiring equity ownership disclosure are not followed (17) occupy top of the model, hence, they are relatively lesser important and attract least priority to deal with. Other barriers falling in between bottom and top of the model are intermediary having bottom top effect. As a supplement to ISM another structural analysis namely MICMAC was applied to the data collected from the experts. MICMAC is a driving-dependence power analysis. Objective of MICMAC is to identify key factors. It divides the factors into four clusters namely: independent, autonomous, linkage and dependent. The cluster wise results of MICMAC are:

**Independent**: Factors having high driving and low dependence power fall in this cluster. In present study factors listed at 6, 11 and 12 fall in this cluster. They are key factors need high care to handle them. The practitioners must give them relatively high priority.

**Autonomous**: Factors having low driving and low dependence power fall in this cluster. In present study factors listed at 14 and 16 fall in this cluster. These factors are relatively separated from the model but have few powerful links which do not have much impact on the system.

**Linkage**: Factors having high driving and high dependence power fall in this cluster. In present study factors listed at 5, 7, 8, 9, 10 and 13 fall in this cluster. They are relatively agile and unbalanced, therefore, actions on them affect others and as a feedback affect themselves as well. Therefore, the practitioners have to be careful while dealing with these barriers.

**Dependent**: Factors having low driving and high dependence power fall in this cluster. In present study factors listed at 1, 2, 3, 4, 15 and 17 fall in this cluster. These factors resultantly depend on others and need extra care.

Summary of the results of literature discourse, ISM and MICMAC is presented as Table 7.

### Table 7. Summary Results of Literature, MICMAC and ISM

<table>
<thead>
<tr>
<th>No.</th>
<th>Barrier</th>
<th>Experts</th>
<th>Driving</th>
<th>Dependence</th>
<th>Effectiveness</th>
<th>Cluster</th>
<th>MICMAC Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Basic shareholders’ rights are not often protected</td>
<td>2</td>
<td>15</td>
<td>−13</td>
<td>Independent</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Minority shareholders’ rights are often violated</td>
<td>2</td>
<td>15</td>
<td>−13</td>
<td>Independent</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Preferential treatment is often given to large shareholders</td>
<td>3</td>
<td>12</td>
<td>−9</td>
<td>Independent</td>
<td>II</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Aggrieved shareholders often do not have a recourse</td>
<td>3</td>
<td>10</td>
<td>−7</td>
<td>Independent</td>
<td>II</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Weak monitoring and enforcement of corporate laws</td>
<td>17</td>
<td>9</td>
<td>8</td>
<td>Linkage</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Board members are not committed to their responsibilities</td>
<td>15</td>
<td>8</td>
<td>7</td>
<td>Independent</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Rules and regulations are often violated</td>
<td>17</td>
<td>9</td>
<td>8</td>
<td>Linkage</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Rules on independent board members are not followed</td>
<td>13</td>
<td>9</td>
<td>4</td>
<td>Linkage</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Laws and rules on stock market listing are violated</td>
<td>14</td>
<td>9</td>
<td>5</td>
<td>Linkage</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Lack of investigation non-compliance with laws</td>
<td>17</td>
<td>9</td>
<td>8</td>
<td>Linkage</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Lack of investigation about mismanagement</td>
<td>17</td>
<td>8</td>
<td>9</td>
<td>Independent</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Lack of investigation about rights of minority shareholders</td>
<td>15</td>
<td>7</td>
<td>8</td>
<td>Independent</td>
<td>VII</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>Barrier</th>
<th>Experts</th>
<th>Driving</th>
<th>Dependence</th>
<th>Effectiveness</th>
<th>Cluster</th>
<th>MICMAC Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Lack of actions against auditors’ fraud</td>
<td>14</td>
<td>9</td>
<td>5</td>
<td>Linkage</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Lack of equal access to information for all shareholders</td>
<td>5</td>
<td>7</td>
<td>−2</td>
<td>Autonomous</td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Insider trading laws, rules, and regulations are ignored</td>
<td>5</td>
<td>11</td>
<td>−6</td>
<td>Dependent</td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Lack of autonomy on the part of the auditors</td>
<td>2</td>
<td>6</td>
<td>−4</td>
<td>Autonomous</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Rules requiring equity ownership disclosure are not followed</td>
<td>1</td>
<td>9</td>
<td>−8</td>
<td>Dependent</td>
<td>I</td>
<td></td>
</tr>
</tbody>
</table>
From Table 7 it can be observed that factor 12 namely “Lack of investigation about rights of minority shareholders” is the key factor since as per MICMAC it is an independent factor and as a result of iterations it occupies bottom of the model.

Discussion: Main objective of the study is to analyze the barriers in implementation of CG and to impose structure on them which has been done by way of ISM and MICMAC. The barriers were adopted from previous literature on the presumption that they are generalizable to Pakistan. The authors have surveyed lot of literature and found number of studies regarding barriers in implementation of CG using wide variety of data sets and methodological choices. In fact, lot of research has surpassed in this behalf specifically on CSR which is undoubtedly part of CG. However, there is really dearth of studies on barriers in implementation of CG as a whole. Study in hand is different in nature, context, nature of respondents, data set, methodologies and results which is evident from a juxtaposition of the study as against the relevant studies from within existing literature Table 8.

Table 8. Comparison of Results of the Present Study with Prior Studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Focus</th>
<th>Country</th>
<th>Factors</th>
<th>Key Factors</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>Barriers in embarking on CG regime</td>
<td>Pakistan</td>
<td>17</td>
<td>Lack of investigation about rights of minority shareholders</td>
<td>ISM and MICMAC</td>
</tr>
<tr>
<td>Argentino et al.</td>
<td>Barriers in implementation of CG</td>
<td>Brazil</td>
<td>---</td>
<td>Wide range of barriers and difficulties</td>
<td>Survey of literature using barriers and difficulties as key words and calculation of word cloud on NVIVO 11</td>
</tr>
<tr>
<td>Goyal and Kumar</td>
<td>Modeling of barriers in CSR</td>
<td>India</td>
<td>10</td>
<td>Consumer’s passive attitude towards CSR, and Time-consumers CSR Implementation</td>
<td>ISM</td>
</tr>
<tr>
<td>Okpara (2011)</td>
<td>Barriers, issues and challenges in implementation of CG</td>
<td>Nigeria</td>
<td>17</td>
<td>Finalized the lists of barriers, issues and challenges in implementation of CG Lack of public medial interest, lack of consumer concern, and lack of regulations and standards</td>
<td>Quantitative and qualitative mixed methodologies based on in-depth interviews and survey and EFA</td>
</tr>
<tr>
<td>Faisal (2010)</td>
<td>Identification of barriers in CSR</td>
<td>Qatar</td>
<td>13</td>
<td></td>
<td>ISM</td>
</tr>
</tbody>
</table>

The contrast of studies aforementioned reveal that the focus of contemporary research in the context of CG remained on identification of factors, some aspects of CG like CSR. Present study has prioritized, hierarchicalized and determined the inter-relationships among the factors concerning overall implementation of principles of CG. This structuring has been performed by using appropriate and a novel technique of ISM. The set of respondents of this study is also different form that of others in exposure, experience or expertise because it comprises of top management of leading corporations.

Conclusion

This study has great value for regulators and corporations that wish to prioritize their efforts to effectively remove the barriers in successful implementation of CG. Despite of utmost efforts, most of the countries could not successfully embark on regime of CG due to multitude of barriers. This issue needs to be explored seriously and on priority. Therefore, objectives of this study are: i) to identify key barriers in implementation of CG, ii) to rank and determine interactions among the barriers of implementation of CG in Pakistan, iii) to uncover possible linkages among barriers, iv) to discuss how the structural model of CG barriers is helpful to regulators and corporations and v) to propose framework for future quantitative research. The methodology used for resolving this issue is discourse of literature coupled with expert opinion-based ISM augmented with MICMAC. Results of literature discourse show that there are 17 barriers in implementation of CG (Table 1). The results of ISM show that the most important factor is 12 because it occupies bottom of model. It affects all other factors and deserves priority treatment. Whereas, barriers listed at 1, 2, 16 & 17 occupy top of the model, therefore, relatively less important and attract least priority. Other barriers falling on continuum of bottom and top are intermediary having bottom top effect. Results of MICMAC show that 6, 11 & 12 are independent, 14 & 16 are autonomous, 5, 7, 8, 9, 10 & 13 are linking and 1, 2, 3, 4, 15 & 17 are dependents barriers. Hence, overall results of the study can be portrayed that there are total 17 barriers in
implementation of CG out of which barrier 12 namely “Lack of investigation about rights of minority shareholders” is the key barrier having high driving power and needs high degree of priority. This study contributes by way of theoretical understanding the phenomenon. It contributed a scientifically developed ISM model and driving-dependence diagram towards literature. It also contributed important inputs and supplementary information regarding structural relations among barriers in implementation of CG in Pakistan. Finding of the study contributed solid bases in order to design quantitative studies. It is important for regulators to set policy priorities, management of corporations for setting implementation policies in order to obtain desired results, society at large in form of safety and protection of investment made by them and by way of understanding the dynamics of better corporate citizenship. ISM model and driving-dependence diagram will help the stakeholders to understand the processes and relationships rather clearly. It will be helpful to the practitioners while making plans to implement CG they can focus on key independent factors. But it has certain limitations that are necessary to be mentioned for developing the judicious understanding of readers. Firstly, ISM method only identifies but does not quantify the relationships among factors therefore, future studies can use SEM, PCA, AHP, ANP, TOPSIS, GRA or some other techniques to quantify the relationships. Secondly, the study adopted a list of factors from Okpara (2011) which may not be exhaustive and there might be some other barriers important to implementation of CG which may also vary from context to context, therefore, future studies may explore the barriers rather rigorously and apply different techniques like principal component analysis to find more factors. Thirdly, this study is based on the expert opinion of top management of companies future studies may be done from the perspective of other stakeholder like regulators, employees, society at large, etc.
References


An Interpretive Structural Model of Barriers in Implementing Corporate Governance (CG) in Pakistan


Zhang, Q., Oo, B.L., & Lim, B.T.H. (2019). Drivers, motivations, and barriers to the implementation of corporate social responsibility practices by construction enterprises: A review. Journal of Cleaner Production, 210, 563-584.
## Annexure A
### Panel of Experts’ Profile

<table>
<thead>
<tr>
<th>Expert</th>
<th>Designation</th>
<th>Organization</th>
<th>Experience</th>
<th>Qualification</th>
<th>Brief Profile</th>
</tr>
</thead>
</table>
| 1      | Director    | Kohinoor Mills Ltd. and Escorts Investment Bank Ltd. | 43 Years | MBA | • Used to be President and Chief Executive of 3 different banks from time to time  
• Used to be Director on Board of Directors of more than 20 different companies at different points of time.  
• Traveled almost 30 countries in context of business meetings.  
• Served outside the country for 5 years in a renowned group of multi-national companies.  
• Individual small investor having the experience of investment more than 20 years in Pakistani exchanges and or international exchanges.  
• Qualified and well versed with norms of business.  
• Experience of successfully running small business independent of investment in shares.  
• Experience of different regimes of political changes and shocks over the period of time.  
• Experience of teaching CG/global business/business ethics at graduate level in large public sector universities.  
• Experience of ensuring compliance of codes of CG by 4 public limited quoted companies of United International Group.  
• Fully conversant with codes of CG Pakistan, codes of CG of international institutions and corporate codes of ethics applicable in Pakistan.  
• Responsible for maintaining share accounts of brokerage houses and their customers.  
• Responsible for ensuring the application for code of ethics and rules & regulations of government of Pakistan concerning transfer of shares.  
• Responsible for maintaining the disciplines in transfer of electronically held corporate shares.  
• Familiar with codes of CG, rules of listing, corporate laws and norms of business.  
• Corporate lawyer.  
• Experience of handling and representing the corporate cases including banking cases at level of banking courts, high courts and supreme court of Pakistan.  
• Exposure of corporate laws, banking laws, codes of ethics & CG, listing regulations, etc. |
| 2      | Investor    | Fancy Communication | 20 Years | MBA and M.Com. | • Experience of successfully running small business independent of investment in shares.  
• Experience of different regimes of political changes and shocks over the period of time.  
• Experience of teaching CG/global business/business ethics at graduate level in large public sector universities.  
• Experience of ensuring compliance of codes of CG by 4 public limited quoted companies of United International Group.  
• Fully conversant with codes of CG Pakistan, codes of CG of international institutions and corporate codes of ethics applicable in Pakistan.  
• Responsible for maintaining share accounts of brokerage houses and their customers.  
• Responsible for ensuring the application for code of ethics and rules & regulations of government of Pakistan concerning transfer of shares.  
• Responsible for maintaining the disciplines in transfer of electronically held corporate shares.  
• Familiar with codes of CG, rules of listing, corporate laws and norms of business.  
• Corporate lawyer.  
• Experience of handling and representing the corporate cases including banking cases at level of banking courts, high courts and supreme court of Pakistan.  
• Exposure of corporate laws, banking laws, codes of ethics & CG, listing regulations, etc. |
| 3      | GM (CG Compliance) | United International Group of Companies | 20 Years | CA | • Experience of successfully running small business independent of investment in shares.  
• Experience of different regimes of political changes and shocks over the period of time.  
• Experience of teaching CG/global business/business ethics at graduate level in large public sector universities.  
• Experience of ensuring compliance of codes of CG by 4 public limited quoted companies of United International Group.  
• Fully conversant with codes of CG Pakistan, codes of CG of international institutions and corporate codes of ethics applicable in Pakistan.  
• Responsible for maintaining share accounts of brokerage houses and their customers.  
• Responsible for ensuring the application for code of ethics and rules & regulations of government of Pakistan concerning transfer of shares.  
• Responsible for maintaining the disciplines in transfer of electronically held corporate shares.  
• Familiar with codes of CG, rules of listing, corporate laws and norms of business.  
• Corporate lawyer.  
• Experience of handling and representing the corporate cases including banking cases at level of banking courts, high courts and supreme court of Pakistan.  
• Exposure of corporate laws, banking laws, codes of ethics & CG, listing regulations, etc. |
| 4      | Manager (Lahore) | Central Depository Company of Pakistan Ltd. | 25 Years | MBA | • Experience of successfully running small business independent of investment in shares.  
• Experience of different regimes of political changes and shocks over the period of time.  
• Experience of teaching CG/global business/business ethics at graduate level in large public sector universities.  
• Experience of ensuring compliance of codes of CG by 4 public limited quoted companies of United International Group.  
• Fully conversant with codes of CG Pakistan, codes of CG of international institutions and corporate codes of ethics applicable in Pakistan.  
• Responsible for maintaining share accounts of brokerage houses and their customers.  
• Responsible for ensuring the application for code of ethics and rules & regulations of government of Pakistan concerning transfer of shares.  
• Responsible for maintaining the disciplines in transfer of electronically held corporate shares.  
• Familiar with codes of CG, rules of listing, corporate laws and norms of business.  
• Corporate lawyer.  
• Experience of handling and representing the corporate cases including banking cases at level of banking courts, high courts and supreme court of Pakistan.  
• Exposure of corporate laws, banking laws, codes of ethics & CG, listing regulations, etc. |
| 5      | Advocate Supreme Court of Pakistan | Malik and Maliks | 27 Years | MA and LLB | • Experience of successfully running small business independent of investment in shares.  
• Experience of different regimes of political changes and shocks over the period of time.  
• Experience of teaching CG/global business/business ethics at graduate level in large public sector universities.  
• Experience of ensuring compliance of codes of CG by 4 public limited quoted companies of United International Group.  
• Fully conversant with codes of CG Pakistan, codes of CG of international institutions and corporate codes of ethics applicable in Pakistan.  
• Responsible for maintaining share accounts of brokerage houses and their customers.  
• Responsible for ensuring the application for code of ethics and rules & regulations of government of Pakistan concerning transfer of shares.  
• Responsible for maintaining the disciplines in transfer of electronically held corporate shares.  
• Familiar with codes of CG, rules of listing, corporate laws and norms of business.  
• Corporate lawyer.  
• Experience of handling and representing the corporate cases including banking cases at level of banking courts, high courts and supreme court of Pakistan.  
• Exposure of corporate laws, banking laws, codes of ethics & CG, listing regulations, etc. |
<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Position</th>
<th>Experience/Qualifications</th>
</tr>
</thead>
</table>
| 6 | Company Secretary         | First Punjab Modaraba        | • Experience of retainership and legal advisory services to many of the large national and multi-national companies.  
• Author of an international standard book on corporate laws.  
• Experience of being company secretary for 3 to 4 public limited listed companies.  
• Experience of serving as Chief Financial Officer of 2 public limited listed companies.  
• Served as head of corporate brokerage house of an investment bank,  
• Familiar with corporate laws, codes of CG, codes of ethics, listing regulations and corporate secretarial practices.  
• Experience of serving as company secretary, Chief Financial Officer of large public limited companies.  
• Experience of directorship on 2 financial institutions.  
• Experience of teaching wide variety of subjects to Chartered Accountants.  
• Exposure of tax laws, company laws, insurance & banking laws, codes of ethics, codes of conducts and codes of CG.  
• Hands on current developments in the body of knowledge of CG.  
• Experience of working in a large group of insurance companies.  
• Dual master degree of risk management from large public sector university.  
• Doing research in the area of CG with experienced and expert professors in a large private sector university.  
• Experience of running an independent audit firm for last 3 decades.  
• Experience of being auditor of many public limited listed companies over the period of time.  
• Experienced wide variety of different corporate regimes and/or political regimes over the period of time.  
• Used to teach wider variety of subject including CG at graduate level in public sector universities.  
• SECP approved trainer for training of company directors as a requirement of codes of CG.  
• Experience of handling complaints against brokers/rigging/hostile takeovers.  
• Exposure of corporate laws, codes of ethic, codes of CG, government policies, cyber laws, etc. |
| 7 | Director                  | The United Insurance Company of Pakistan Ltd. and Apna Micro Finance Bank Ltd. | • Experience of being company secretary for 3 to 4 public limited listed companies.  
• Experience of serving as Chief Financial Officer of 2 public limited listed companies.  
• Served as head of corporate brokerage house of an investment bank,  
• Familiar with corporate laws, codes of CG, codes of ethics, listing regulations and corporate secretarial practices.  
• Experience of serving as company secretary, Chief Financial Officer of large public limited companies.  
• Experience of directorship on 2 financial institutions.  
• Experience of teaching wide variety of subjects to Chartered Accountants.  
• Exposure of tax laws, company laws, insurance & banking laws, codes of ethics, codes of conducts and codes of CG.  
• Hands on current developments in the body of knowledge of CG.  
• Experience of working in a large group of insurance companies.  
• Dual master degree of risk management from large public sector university.  
• Doing research in the area of CG with experienced and expert professors in a large private sector university.  
• Experience of running an independent audit firm for last 3 decades.  
• Experience of being auditor of many public limited listed companies over the period of time.  
• Experienced wide variety of different corporate regimes and/or political regimes over the period of time.  
• Used to teach wider variety of subject including CG at graduate level in public sector universities.  
• SECP approved trainer for training of company directors as a requirement of codes of CG.  
• Experience of handling complaints against brokers/rigging/hostile takeovers.  
• Exposure of corporate laws, codes of ethic, codes of CG, government policies, cyber laws, etc. |
| 8 | Ph.D. Scholar (Doing Research in Area of CG) | From a Leading Private Sector University of Pakistan | • Experience of being company secretary for 3 to 4 public limited listed companies.  
• Experience of serving as Chief Financial Officer of 2 public limited listed companies.  
• Served as head of corporate brokerage house of an investment bank,  
• Familiar with corporate laws, codes of CG, codes of ethics, listing regulations and corporate secretarial practices.  
• Experience of serving as company secretary, Chief Financial Officer of large public limited companies.  
• Experience of directorship on 2 financial institutions.  
• Experience of teaching wide variety of subjects to Chartered Accountants.  
• Exposure of tax laws, company laws, insurance & banking laws, codes of ethics, codes of conducts and codes of CG.  
• Hands on current developments in the body of knowledge of CG.  
• Experience of working in a large group of insurance companies.  
• Dual master degree of risk management from large public sector university.  
• Doing research in the area of CG with experienced and expert professors in a large private sector university.  
• Experience of running an independent audit firm for last 3 decades.  
• Experience of being auditor of many public limited listed companies over the period of time.  
• Experienced wide variety of different corporate regimes and/or political regimes over the period of time.  
• Used to teach wider variety of subject including CG at graduate level in public sector universities.  
• SECP approved trainer for training of company directors as a requirement of codes of CG.  
• Experience of handling complaints against brokers/rigging/hostile takeovers.  
• Exposure of corporate laws, codes of ethic, codes of CG, government policies, cyber laws, etc. |
| 9 | Auditor/Principal         | A leading Chartered Accountancy Firm in Lahore | • Experience of being company secretary for 3 to 4 public limited listed companies.  
• Experience of serving as Chief Financial Officer of 2 public limited listed companies.  
• Served as head of corporate brokerage house of an investment bank,  
• Familiar with corporate laws, codes of CG, codes of ethics, listing regulations and corporate secretarial practices.  
• Experience of serving as company secretary, Chief Financial Officer of large public limited companies.  
• Experience of directorship on 2 financial institutions.  
• Experience of teaching wide variety of subjects to Chartered Accountants.  
• Exposure of tax laws, company laws, insurance & banking laws, codes of ethics, codes of conducts and codes of CG.  
• Hands on current developments in the body of knowledge of CG.  
• Experience of working in a large group of insurance companies.  
• Dual master degree of risk management from large public sector university.  
• Doing research in the area of CG with experienced and expert professors in a large private sector university.  
• Experience of running an independent audit firm for last 3 decades.  
• Experience of being auditor of many public limited listed companies over the period of time.  
• Experienced wide variety of different corporate regimes and/or political regimes over the period of time.  
• Used to teach wider variety of subject including CG at graduate level in public sector universities.  
• SECP approved trainer for training of company directors as a requirement of codes of CG.  
• Experience of handling complaints against brokers/rigging/hostile takeovers.  
• Exposure of corporate laws, codes of ethic, codes of CG, government policies, cyber laws, etc. |
| 10| Director                  | Government of Punjab         | • Experience of being company secretary for 3 to 4 public limited listed companies.  
• Experience of serving as Chief Financial Officer of 2 public limited listed companies.  
• Served as head of corporate brokerage house of an investment bank,  
• Familiar with corporate laws, codes of CG, codes of ethics, listing regulations and corporate secretarial practices.  
• Experience of serving as company secretary, Chief Financial Officer of large public limited companies.  
• Experience of directorship on 2 financial institutions.  
• Experience of teaching wide variety of subjects to Chartered Accountants.  
• Exposure of tax laws, company laws, insurance & banking laws, codes of ethics, codes of conducts and codes of CG.  
• Hands on current developments in the body of knowledge of CG.  
• Experience of working in a large group of insurance companies.  
• Dual master degree of risk management from large public sector university.  
• Doing research in the area of CG with experienced and expert professors in a large private sector university.  
• Experience of running an independent audit firm for last 3 decades.  
• Experience of being auditor of many public limited listed companies over the period of time.  
• Experienced wide variety of different corporate regimes and/or political regimes over the period of time.  
• Used to teach wider variety of subject including CG at graduate level in public sector universities.  
• SECP approved trainer for training of company directors as a requirement of codes of CG.  
• Experience of handling complaints against brokers/rigging/hostile takeovers.  
• Exposure of corporate laws, codes of ethic, codes of CG, government policies, cyber laws, etc. |
11. **Professor**
National University of Modern Languages, Islamabad

- 15 Year experience of teaching code of CG at university level.
- Attended many workshops on CG.
- Experience of teaching subject of CG, company law, business & labor laws, taxation management, etc. at MS/M.Phil. level in a large public sector university.
- Research publications in the area of CG.
- Supervised thesis on CG.
- Attended many workshops on CG as speaker and participant.

12. **Professor/Chairman**
Department of Business & Economics, University of Education

- 20 Year experience of teaching subjects of CG, company law, business & labor laws, taxation management, etc. at MS/M.Phil. level in a large public sector university.
- Research publications in the area of economics and business.
- Supervised thesis on management and economics.
- Experience of serving government sector for 10 years.
- Experience of teaching subjects of business/management/micro and macro-economics at MS/M.Phil./PhD. level in large public sector universities.
- Research publications in the area of economics and business.
- Supervised thesis on management and economics.
- Experience of chairing the board of studies in public sector universities.
- Experience of serving for 5 years in international universities in gulf.
- Experience of teaching subjects of accounting, finance, commerce, CG, company law, business & labor laws, taxation management, etc. at MS/M.Phil. level in a large public sector university.
- Supervised thesis on intellectual capital and CG.

13. **Professor**
Hailey College of Commerce, University of the Punjab, Lahore

- 10 Year experience of teaching subjects of accounting, finance, commerce, CG, company law, business & labor laws, taxation management, etc. at MS/M.Phil. level in a large public sector university.
- Research publications in the area of management, marketing, CG.
- Supervised thesis on intellectual capital and CG.
- Attended many workshops on CG as speaker and participant.
- Senior bureaucrat.

14. **Director (Risk Management)**
Finance Department, Government of Punjab

- 15 Year experience of teaching subjects of management, marketing, CG, company law, global business etc. at MS/M.Phil. level in large public sector universities.
- Research publications in the area of management and marketing.
- Supervised thesis on management.
- Well versed with government policies regarding risk management.
- Well versed with corporate laws and corporate risk profiles.

15. **Professor/Chairman**
UVAS Business School, University of Veterinary and Animal Sciences, Lahore

- 10 Year experience of teaching subjects of management, marketing, CG, company law, global business etc. at MS/M.Phil. level in large public sector universities.
- Research publications in the area of management and marketing.
- Supervised thesis on management.
- Well versed with corporate laws and corporate risk profiles.
- Experience of teaching subjects of management, marketing, CG, company law, global business etc. at MS/M.Phil. level in large public sector universities.
- Supervised thesis on management.
- Travelled in 4 technologically and educationally advanced countries to attend workshops on wide variety of themes including CG.
<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Organization</th>
<th>Years</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Assistant Director</td>
<td>Securities &amp; Exchange Commission of Pakistan</td>
<td>10</td>
<td>MBA</td>
</tr>
<tr>
<td>17</td>
<td>Assistant Director</td>
<td>Securities &amp; Exchange Commission of Pakistan</td>
<td>10</td>
<td>MBA</td>
</tr>
<tr>
<td>18</td>
<td>Secretary</td>
<td>Chamber of Commerce</td>
<td>15</td>
<td>MA</td>
</tr>
</tbody>
</table>

- Experience as regulator of companies in Pakistan.
- Responsible for ensuring periodical reporting of public limited companies.
- Responsible for maintaining the financial and managerial discipline in companies.
- Experience as regulator of companies in Pakistan.
- Responsible for registration of companies.
- Responsible for maintaining the record of charges on assets of the companies.
- Experience of handling of complaints against management of companies.
- Wide experience of formalities of membership of chamber of commerce.
- Familiar with corporate laws, codes of ethics, codes of CG, labor laws including rules and regulations of formation of unions and associations.
- Experience of handling complaints.
- Experience of formulating and coordinating for business policies at government level.