ROLE OF ETHICS IN SUPPLY CHAIN MANAGEMENT: CULTURE AS MODERATOR

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Abstract

Purpose: The present study focuses on the role of ethics in the supply chain management. In addition to that the moderating role of culture is also examined. Organizational culture has been regarded as an important determinant of ethical behaviours of managers. This paper assesses the potential of organizational culture to impact ethics in organizations.

Methodology: Organizational culture is recognized as one determinant of how people behave, more or less ethically, in organizations.

Results: The research outcome will enable organizations with SCM functions to understand better the role that ethics can play in steering the organization to greater heights. The research will also assist professional associations in the approach of guiding, training and counselling its members on issues related to ethics. The results of the current study are providing support to the proposed hypothesis. The results are obtained through smart PLS. In the author's knowledge this is among pioneering studies on this issue.

Keywords: supply chain management, ethics, culture, SEM-PLS.

INTRODUCTION

There are a number of studies in the past that has studied ethics theoretically and its application as well. Recently ethics has been extended to the arena of business and organizations are gaining interest in it. Therefore, it is important to know the points which contribute to the ethical behavior. Moreover, companies should need to know the extent to which they should adopt ethical practice and the benefits that an organization can get from the adoption of these codes (Yusuf et al., 2014; Okpechi et al., 2018; Oli, 2018).

Ethics has received support and attention from small and large organizations since long and it is well established arena as well. Ethics is the formal principle that guides the human and guide them way to conduct the work. The concepts of respect, trust, fairness, diligence, probity, integrity and honesty are involved in ethical behavior. Avoidance of abuse and conflict is also included in it Amemba et al. (2013).

Researchers observed personal ethics are separate from the professional ethics and common morality. The way one individual conduct his day to day activities is known as personal ethics whereas, the set of commitments that guides societies or culture are known as common moralities (Roberts, 2003). In order to set the moral standards, professional ethics are designed. Ethical responsibility includes leading a truthful, honest and decent life (Beamon, 2005).

There are a number of processes which are involved to transform a product from raw to the user. These processes must be managed in a way to produce balance of consideration, profitability and business requirements in an optimal way to have a wider impact. For this reason, supply chains have become important for the organization for their success. It is important to mention that companies are competing at the level of supply chain rather than at the level of companies (Svensson and Bååth, 2008). Ethics is not like regulations and laws. Functions of ethical supply chain management are created to supervise the supply chain management’s conduct

The law is not self-motivated and does not achieve self-compliance. It is reported that to be effective any law requires individual responsibility and personal motivation - basically the human rejoinder to ethical standards and ideals. It is important for the interest of public ethical conduct and ethical ideology of supply chain practitioners and procurement (Onyango, 2012; Olowa, 2018; Önder, 2018). Researchers have made clear distinction between ethical and legal compliance mechanism. They mentioned that legal mechanism lacked the firepower to restore the trust and confidence. For this reason, it is inadequate (Anderson and Orsagh, 2004). The concept of freedom was introduced by Arjoon and Gopaul (2003) who provided the theoretical base to explain the mechanism of legal compliance mechanism. It’s been found that to deal with the practice of fraud, compliance mechanism was insufficient. The real and fundamental issues may not be addressed by this mechanism.

All activities which are involved in delivering a product to a customer according to the request and demand is called supply chain. The activities of supply chain are related to the transformation and flow of good from the stage of raw materials to the final consumer. It also involves the flow of finances and information. There are four stages of supply chain: Supply
network, end user, distribution systems and internal supply chain. There are two up and down stages which involve four flows namely funds flow, information flow, services flow and material flow (Chopra and Meindl, 2001).

Supply chain management is recognized by Certificate institute of purchasing and supply as process of business which is still being evolved but exists still long. CIPS states that Supply chain management has undergone many changes recently; for example, in the 1980s it was recognized that holding stock was an inefficient use of resources. With supply chain management, buyers, suppliers and internal customers could work together to ensure delivery of quality goods and services at acceptable costs (Onyango, 2012).

Most companies have turned to supply chain management function to achieve competitive edge. (OECD) Organization for Economic Co-operation and Development (2005) observed that advanced countries have not offered developing countries best practices to turn to when examining options for designing effective and ethical supply chain management systems. This may have been as a result of a similar struggle for ethical performance within advanced economies. Maignan et al. (2011) stated that measuring the ethical standards of supply chain management (SCM) professionals is no easy task because the required data is difficult to collect and analyse. Oluwafisoye and Akande (2013) observed that most SCM practitioners had little or no formal training on ethics either when studying or once qualified. He also stated that very little debate was going on among such supply chain management practitioners about ethics or how to identify and resolve moral problems generally. State regulation, also known as traditional regulation, has had challenges focused on implementation. Companies normally express their core ethical values and responsibilities via an ethics policy. It is stated that a code of ethics is responsible for setting out a road map through which the company wishes to carry on with its operations, including making commitments to stakeholders and ethical guidance to its staff. Subsequently, it is added that a specific code of ethics may cover issues not covered by laws concerning a particular function such as procurement and supply chain management (Elango et al., 2010).

One of the key attributes of the ethical behavior of manager is organizational culture. One of the key determinants the way people behave, and ethical issues are recognized as organizational culture within firms. Organizational culture is understood by the researcher as the attribute which can influence the performance of the organization in a positive way. In case things go wrong in any organization, culture is perceived by the top management as the base of solution and source of problem as well. Vardi (2001). Also, there is a strong need for the collaboration of organizational culture and supply chain management to manage the overall goals of organizations. If communication within and organization is rich, tangible strategic practices and intangible culture traits are reflected in it Carmeli and Tishler (2004). High level of congruence between strategic practices and organizational culture is required in effective flow of information (Gallivan and Write, 2005).

In light of the above discussion. This research aims to evaluate the impact of ethics on supply chain. This paper also aims to examine the empirical relationship between practices of ethics and performance of organization.

Objective of the study is to establish the role of ethics in Supply Chain Management with organizational culture as moderator.

Study Significance

The outcome of this research will enable firms with the functions of supply chain management to better understand the role of ethics in getting the organization to perform well. Professionals will also be assisted by this research in approach of counselling, training and guiding the employees regarding ethics.

LITERATURE REVIEW

Ethics

Numerous authors discussed the nature of ethical theory. According to Herkert (2001) an ancient Greek word ‘ethikos’ (refers to the traditions and norms) is actually the word from which the word ‘ethics’ is extracted. Likewise, the Latin translator translate this word into English as ‘moral’. Regardless of the association between the origin of these two words, only few investigators agreed that there is any clear distinction between these two terms (Seuring and Müller, 2003). Thus, researchers used these terms alternatively (Mentzer et al., 2001).

The continuous research stream proposed five dominant theories of ethics. These theories start emerging from ancient researchers like Aristotle and the development of these theories is still continuous. However, for the practical application of these theories it necessary to convert them into actions. Likewise, researchers did not find and application of the ethical theories in real and hence, call for the real-life practice of ethical principles (Kushwaha, 2012).

Although, the concept of ethics in not new to the society, but in corporate sector the term ethics is start emerging only in the beginning of the 20th century (Seuring and Müller, 2003). Corporate sector used the ethical standards to distinguish between bad and good business practices without any ambiguity. Therefore, ethics in business refers to the moral perspective of business science. Meanwhile, it is suggested by the scholars that ethics can reduce and prevent certain harms of bad actions of people, but it cannot make the life of someone perfect. According to Maignan et al. (2011) business ethics provide guidelines to enhance the wealth of all stakeholders.
Moreover, ethics can be defined as guidelines to prevent harm from actions of others when a certain group is in power to extract the rent at the expense of others (Oluwafisoye and Akande, 2013).

In this vein, ethics refers to the set of beliefs and guidelines which encourage the individuals to adopt honest behavior that prevent others from their actions and discourage the self-interest behavior. Ethics work as backbone in any organization therefore, ethics considered as crucial factor in strategic planning. As the basic objective of firms is to earn profit by providing services or products to their target customers. Meanwhile, it is important for an organization not only to focus on their returns and profits, but organizations must have to consider all the ethical accepts while preparing and implementing the strategies. According to Elango et al. (2010) ethical standards should be applicable to all stakeholders of the company, customers, employees, suppliers and owners.

In summary, ethical responsibilities involve not only, honest, decent and truthful life but also involves the rationale decisions for unexpected situations. According to Herkert (2001) it is our moral obligation to help colleagues in their difficult work and assist them to confront the technical problems intelligently.

Supply chain management

On the basis of literature review, the term supply chain management can be defined as a set of activities which includes the information flow and all activities started from the extraction of raw materials to conversion of material to deliver goods to customers. Hence, researcher (Seuring and Müller, 2003) argued that supply chain management is an improved integration process of all above stated activities to achieve the competitive edge.

Another researcher (Mentzer et al., 2001) define the supply chain management as a systematic coordination of strategies in a way that transforms the traditional functions of business in integrated business functions across and within companies. This type of integration enables a company and the whole chain of supply chain management to retain sustainable competitive advantage.

Although, all organizations have the supply chain management now a days but the degree of SCM is depend on the size and nature of the firm. The networks collect the material and transform it into finished goods and then deliver to the customers. The management of all these activities is known as supply chain management. According to Kushwaha (2012) effective SCM should consider all the elements of this chain without reducing the quality at minimum possible price.

Networks of supply chain includes the suppliers, retailers, transporters, customers and warehouses. Hence, the role of supply chain management is critical and demand a careful attention in an organizational setup. According to Emiliani (2010) the strategic importance of supply chain management is increased since 1990 because supply chain management is responsible for a large amount of money. A previous research of Maloni and Brown (2006) stated that supply chain management refers to the chain of suppliers, retailers and logistics to provide services and products to customers. Moreover, firm performance has a significant association with supply chain products (Cooper and Ellram, 1993).

Ethics and supply chain relationship

Ethics and of supply chain management have been explored by many researchers and practitioners from various perspectives. This section provides the relevant literature about ethics from supply chain perspective. There is a long-term relationship developed in the past regarding ethical supply chains.

The management of supply relation and suppliers with metrics, programs and strategies align purchaser standards and supplier business in a better way. The goal of this management is to reduce the overall risk of purchaser regarding corporate integrity failure in the supply chain (Keating, 2009).

The ethical considerations are quite vulnerable in the field of procurement and supply management. It is because the person involved in the procurement are entrusted to spend a good amount of financial resources in a number of organizations (Carter, 2000). Same as sales or marketing personnel, professionals of procurement are external environment of the organization in a high manner. Therefore, the reputation of a firm is highly on risk when the performance is conducted on unethical grounds (Amaeshi et al., 2008). Moreover, the professionals of supply chain cannot layoff their responsibility to monitor, control and select the supplier because of legal and ethical principles (Amaeshi et al., 2008).

Supply is the main purpose of supply chain. Practices regarding proactive way to provide services and goods to the customer while following ethical way is known as ethical supply. The issues regarding supply chain can be broadened to include all the features of supply chain beyond the design of product, the means and the goals. With the help of effective supply chain practices, value addition can be created for stakeholders and customers (Bhatnagar and Teo, 2009). Point of difference can be created by the organization by adopting these practices and will serve the customers in a better way (Hansen and Smith, 2006). To add value, ethical embeddedness is a very effective method, especially as the managers of supply who face the ethical dilemmas more often (Eltantawy et al., 2009).

Organizations are taking the issue of supply chain performance and ethical responsibility very seriously since last few decades (Beamon, 2005). Researchers have described it as the act of managing optimal flow of value for money, high quality, services, and components in a reasonable, fair and consistent manner to meet the legal requirements. This shows the need to respond to the need to act in a responsible way from the source of product to the end user (Carter and Jennings,
Whereas, it’s also been noted that there is very little research conducted regarding ethics and supply chain (Svensson and Bååth, 2008).

When the output of business is treated as a purpose by the members of organization and human aspects are pushed aside, the moral difficulties rise in the business. In such scenarios, the performance of the organization will be good, and it will be bad on other occasions (Drake and Schlachter, 2008).

As collaboration among the members of supply chain is based on long term relationship, the parties involved always try to keep the relationship alive from the point of view of organizations and consumers involved. In other words, to continue the collaborative effort among the firms and consumers, it is important for every member of the firm to recognize what is necessary for this relationship. Efficient partnerships are engaged on short term basis by the firms to earn the financial benefit. Financial benefit can also be gained by the long-term partnerships between the firms and supply chains (Hoyt and Huq, 2000).

As the pressure on organizations is growing from all the stakeholders to act in a responsible way, organizations have taken a lot of steps to act and trade in ethical way. Moreover, they are involved in establishing minimum standards of environmental responsibility and social responsibility within business (Hughes, 2001). More specifically, within a supply chain ethical practices are identified as a powerful mean through which environmental and social organizational impacts can be proved (Hall and Matos, 2010). There are a number of facets of supply chain ethics and previous researches have also focused on these aspects including low carbon initiatives, fair trade, ethical sourcing and corporate social responsibility (Andersen and Skjøtt-Larsen, 2009); (Pretious and Love, 2006); (Auroi, 2003); (Halldórsson and Kovács, 2010). Researchers indicate that avoidance of unethical behavior is the main concern of ethical supply chains. As a result, there are a number of attempts to settle the guidelines that can help in providing the direction on sensitive practices and initiatives by the supplier (Eltantawy et al., 2009).

Organizational culture as moderator

There are certain values which make a culture which are supported by the human living in a society or organization (Christie et al., 2003). Organizational culture is a dynamic and complex web of behavior, attitude and common values in the setting of organization. It shows that values are long lasting and powerful beliefs regarding the goals of the organization. In this regard, a number of goals affect the values of organization. Backbone of a culture creates the value of any organization because they determine whether activity being conducted is bad or good. Researchers emphasize the shared perceptions and shared ideas aspects and link this to the way individuals conceptualize the world around them (Christie et al., 2003).

As mentioned by Smith and Hume (2005) it is very important for firms to understand the relationship between ethical values and organizational culture. Few of ethical values are universal such as honesty. On the other hand, fairness and equity are the ethical values associated with the culture of the organization. Ethics is the part of basic process, system and structure of organization.

![Conceptual framework](image)

**Figure 1: Conceptual framework**

**H1:** Ethics has significant impact on supply chain management.

**H2:** Culture has significant impact on supply chain management.

**H3:** Culture moderates the relationship between ethics and supply chain management.

**METHODOLOGY**

This study adopts the Structural Equation Modelling (SEM) for analysis due to several reasons. SEM is considered to have equal ability with multiple and linear regression analysis which assume that variables are evaluated with no errors. Even though SEM involves multiple regression and factor analyses, it has a more effective way of estimating instrument for a number of separate multiple regression equations which it evaluates concurrently (Hair et al., 1998). For sample collection,
cluster sampling technique was employed. Five-technique approach that was presented by Gay and Diehl (1992) was used to calculate the sample size for present study. First step is to estimate total population, followed by the estimation of population sample size, using table presented by (Krejcie & Morgan, 1970). The population size turned out to be 310. In social sciences, SEM is considered as a powerful and commonly used tool since it can test number of relationships at one time (Hair et al., 2016). Although, previously many researchers have emphasized much upon AMOS, a co-variance-based approach. However, PLS-SEM is a good alternative to the CB-SEM approach, having unique methodological features.

DISCUSSION

The SEM is one of the most appropriate methodology for a number of reasons such as it is best among existing techniques which is quite advanced and provide a more robust solution of researcher problems which simply cannot be obtained from multiple regression. According to Hair et al. (2016) PLS approach is useful especially when the sole purpose of using structural modelling is to obtain explanation and prediction about the constructs. For the current study, PLS-SEM technique is employed assuming it to be more flexible, demands less in terms of sample size, and have an ability to handle multiple structural modelling. Moreover, the model is constituted of reflective and formative constructs. The study aims to reflect prediction between the constructs. Hair et al. (2016) also supported the reasoning for employing Partial Least Square method. SEM-PLS approach involves two models i.e. structural model and measurement model.

The SEM has two steps the inner model assessment, and the outer model assessment the former is known as the measurement model and the latter is known as the structural model. The measurement of model following different criteria such as reliability, validity and variance in the structural models. The items are of dynamic in nature so a strong correlation is expected to exist between variables and are combined to form a construct. To measure or for the confirmation of the validation of the measurement of model such as how well observed are the variables of the models the study has employed the confirmatory factor analysis During estimation of the measurement model, all elements are separately analysed using reflective, formative, and structural modelling.

Table 1: CFA

<table>
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<tr>
<th>Indicators</th>
<th>Loadings</th>
<th>CR</th>
<th>AVE</th>
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<tr>
<td>CL</td>
<td></td>
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</tr>
<tr>
<td>CL1</td>
<td>.722</td>
<td>0.915</td>
<td>0.812</td>
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<td>CL2</td>
<td>.955</td>
<td></td>
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<td>CL3</td>
<td>.990</td>
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<td>CL5</td>
<td>.825</td>
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<tr>
<td>ETHIC</td>
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<tr>
<td>ETHIC1</td>
<td>.843</td>
<td>0.895</td>
<td>0.772</td>
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<td>ETHIC2</td>
<td>.855</td>
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<td>ETHIC2</td>
<td>.802</td>
<td></td>
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<tr>
<td>ETHIC4</td>
<td>.925</td>
<td></td>
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<tr>
<td>SCM</td>
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<td></td>
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<tr>
<td>SCM1</td>
<td>.822</td>
<td>0.910</td>
<td>0.671</td>
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<tr>
<td>SCM2</td>
<td>.855</td>
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<td>SCM3</td>
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<td>SCM4</td>
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<td>SCM5</td>
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<td>SCM6</td>
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<td>SCM7</td>
<td>.880</td>
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<td>SCM8</td>
<td>.881</td>
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To determine the validity, we have used the Fornell-Larcker criterion of discriminant validity, which is a powerful measure and has been widely used by the researchers in studies (Hair et al., 2012). Discriminant validity measures the association between reflective variables and their constructs. Generally, it operationalizes the variables that are involved in the model. Thus, the current study incorporated this as a threshold for assessing discriminant validity. Value for reliability index is expected to be 0.70 or above. In this study, the value for outer-loadings and cross-loadings turned out to be the same. Since cross loadings analyze the presence of correlations among the constructs, therefore, the current study has examined the discriminant validity between the variables and constructs, as shown in table 2.

Table 2: Discriminant Validity

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<th>1</th>
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<tbody>
<tr>
<td>CL</td>
<td>0.948</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHIC</td>
<td>0.731</td>
<td>0.798</td>
<td></td>
</tr>
<tr>
<td>SCM</td>
<td>0.518</td>
<td>0.550</td>
<td>0.801</td>
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</table>
After the assessment of measurement model, which includes the assessment of reliability and validity, the study has examined the structural model by accessing the structural paths between independent, dependence and moderating variables. The unique nature of SEM-PLS is that unlike other techniques, the SEM-PLS method observes the simultaneous examination of all the constructed variables (Hair et al., 2011; Onder, 2018; Onyinye et al., 2018; Osabohien et al., 2018). Therefore, in case of structural model it analyses the direct and indirect effects of variables. The structural model is also shown below.

<table>
<thead>
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<th>Table 3: Direct Effect</th>
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<tr>
<td>(β)</td>
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<tr>
<td>H1</td>
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<tr>
<td>H2</td>
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For the purpose of investigating the indirect impact of variable or moderator, moderation level is estimated. In addition, to specify the significance of relationship, bootstrap analysis is employed on samples of 1000 observations. The significance level for the p-value is less than 0.05. Other than H3, p-values for all other hypotheses are less than 0.05, indicating the acceptance of hypotheses. Table 4 shows the existence of moderating impact of customer response on the relation of agile SC and external SC performance. Moderation results indicate significant t and p values for both hypotheses. The values for t-test are above 1.96, while p values also came out to be less than 0.05, resulting in the acceptance of H3 hypotheses.

<table>
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<th>Table 4: In-Direct Effect through Moderation</th>
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<tr>
<td>(β)</td>
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In structural modelling, coefficient of determination or $R^2$ explains the predictive power of endogenous variables. Closer to 0 value for path coefficients indicate insignificance of coefficients. Value for $R^2$ also lies between 0-1, value closer to 1 indicate greater predictive accuracy and vice versa. The value of 0.75 indicates substantial predictive power, 0.50 indicates moderate predictive power, while 0.25 indicates weak predictive power. The value for $R^2$ came out to be 0.487, which shows that ethics and culture explains 48.7 percent variation in SCM.

<table>
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<th>Table 5: Expected Variance</th>
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<td>R²</td>
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CONCLUSION

The purpose of a supply chain is to supply. Ethical supply refers to the practice of providing goods and services to customers while subscribing to an ethical code. The issue of ethical supply may be broadened to include all aspects of the supply chain, beyond product design: its goal (to supply) as well as its means (supply chain management activities). Additional value can be created for customers and other stakeholders through effective supply chain practices. This can help an organization to differentiate its offer and better serve its customers’ needs. The present study focuses on the role of ethics in the supply chain management. In addition to that the moderating role of culture is also examined. Organizational culture has been regarded as an important determinant of ethical behaviors of managers. This paper assesses the potential of organizational culture to impact ethics in organizations.

Organizational culture is recognized as one determinant of how people behave, more or less ethically, in organizations. The research outcome will enable organizations with SCM functions to understand better the role that ethics can play in steering the organization to greater heights. The research will also assist professional associations in the approach of guiding, training and counselling its members on issues related to ethics. The results of the current study are providing support to the proposed hypothesis. The results are obtained through smart PLS. In the author’s knowledge this is among pioneering studies on this issue.

REFERENCES


