

A Structural Equation Model of CSR and Performance: Mediation by Innovation and Productivity

Khalid M. Al-Shuaibi¹

¹ Business School – Rabigh, King Abdulaziz University, Jeddah, Saudi Arabia

Correspondence: Khalid M. Al-Shuaibi, Dean of Business School – Rabigh, King Abdulaziz University, Jeddah, Saudi Arabia. E-mail: kshuaibi@hotmail.com

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Abstract

This study has explored the role of Innovation and productivity as mediating factors between Corporate Social Responsibility (CSR) and firm's Performance relationship. The objectives of this study are to build and test a theoretical model to identify the mediating factors in the linkage between CSR and performance. The theoretical model (CIPP Model) is deduced using strategic paradigm of literature. It consists of CSR, Innovation, Productivity, and Performance dimensions. Furthermore, several hypotheses were generated to examine the model. Structural Equation Modeling (SEM) is employed to test the model using data from CSR practicing firms 197 from Saudi Arabia. Confirmatory Factor Analysis (CFA) is performed followed by Structural Equation Modeling to examine the model. The results generally support the hypothesized model with research and managerial implications. The mediation of Innovation along with productivity in CSR linkage to performance is a major contribution to the literature, which may help to explore the black box in the relationship of CSR with performance. Besides proving the business case for the CSR in general, it also advocates the adoption of CSR practices by firms and MNEs operating in the developing countries, as it may enhance innovation and productivity leading to their increased financial performance. This model would be practical and useful for business managers that seek a competitive solution for succeeding in a business crisis and work in the settings of international business.

Keywords: Corporate Social Responsibility (CSR), innovation, productivity, financial performance, mediation, MNEs, developing country, Structural Equation Modeling (SEM)

1. Introduction

Corporate social responsibility (CSR) has grown to be an issue of much concern in the 21st Century for international business (Cegarra-Navarro et al., 2016; Kolk & van Tulder, 2010). Hence, CSR has been increasingly getting more attention in international business studies (Park & Ghauri, 2014). Multinational corporations (MNCs) and investors in international businesses are increasingly interested in the issue of socially responsible business around the globe (Besieux et al., 2015; Cruz & Boehe, 2010).

The effect of CSR on the firm performance has attracted quite an interesting number of researchers recently. Although, most of the studies have found positive association between CSR and Financial performance (Cegarra-Navarro et al., 2016; Choi et al., 2010; Galbreath et al., 2014; Orlitzky et al., 2003; Surroca et al., 2010), yet few others had found a negative relationship (Marcus, 1989; Wright & Ferris, 1997). While, some others still found no relation between the two (Aupperle et al., 1985; Teoh et al., 1999), therefore the question still remain unsettled (Aguinis & Glavas, 2012). Such contradictory evidence has created ground to investigate this issue further and therefore, the requirement to model CSR effect on performance of firms and include factors that may mediate this path (Aguinis & Glavas, 2012).

Furthermore, in literature, as proposed by Hart (1995), and empirically tested by Sharma & Vredenburg (1998) that some firms while adopting CSR practices may develop few potential sources of competitive advantage; hence, emphasizing, the mediating role of few factors in the path from CSR to financial performance. McWilliams & Siegel (2001) observed that this inconsistency in results of different studies might be the result of oversight of innovation or R&D efforts of firm in the measurement models. Despite the fact that innovation is widely accepted as important construct in CSR literature, yet there have been very few studies to model and measure it as a mediating factor in CSR and firm's performance context. It was further observed in the study by

Surroca et al. (2010) that certain intangible resources, might explain the missing link between CSR and financial performance of the firm. These intangible sources may include firm's efforts for increasing innovation and productivity.

Even though CSR and firms performance literature have ample of studies, yet, it has been still in the "*continuing state of emergence*" Lockett et al. (2006, p. 133), as far as the development of theory and methodology is concerned. Therefore, the objectives of this paper are to bridge the gap by building the theoretical model as well as testing it empirically. For the first time, this study has introduced the factors of innovation and productivity as mediators between CSR and financial Performance effect relationship.

Lately a number of CSR studies were premised on Porter hypothesis which states that well-built regulations may "*trigger innovation*" which may offset the cost implied with such regulations (Porter & Vander Linde, 1998). CSR practices may steer the wheel of innovation (Cegarra-Navarro et al., 2016; McWilliams et al., 2006; McWilliams & Siegel, 2001; Moon & Choi, 2014; Spence, 2016). Different theoretical backgrounds can be applicable to relation of CSR with firm's innovation and productivity output.

Some studies have found positive relationship of CSR and productivity (Norris et al., 2012; Stuebs & Sun, 2010; Tewari & Nambudiri, 2012). But mostly their focus is on only one facet of productivity i.e., labor productivity, therefore, there is need to examine the effect of firms' level productivity as a factor in CSR implementation.

Despite all these partial theoretical contributions, there exists no theoretical model and empirical testing of mediating factors of innovation and productivity in CSR relationship with firm's performance. Consequently, there is a call to build a theoretical model premised on prevailing conceptual arguments, and employ a robust methodology to investigate it empirically. Hence, a theoretical model is developed to investigate this complex relationship of CSR with performance along with the mediating roles of innovation and productivity using Structural Equation Modeling (SEM) approach.

The significance of this study is multidimensional. Firstly, it is first endeavor of its kind to bridge the theoretical gap by focusing on the mediating process between CSR activities and performance of the firm. This study proposed Innovation and productivity as mediating variables for the path between CSR and firm performance. Very few studies have considered the relationship between CSR and innovation and even few discussed CSR and productivity association. Barely any study has modeled and analyzed the mediating roles of innovation and productivity.

Furthermore, this study attempts to fill the gap in literature regarding lack of research on CSR in Asian and developing countries (Egri & Ralston, 2008). CSR is mostly reflected as a western phenomenon due to the presence of strongersystems as compared to developing countries (Chapple & Moon, 2005; Tewari & Pathak, 2015). This fact possibly will pose substantial challenge to the CSR practicing firms in these countries, like Saudi Arabia. Therefore, the objectives of this study are to build and test a theoretical model to identify the mediating factors in the linkage between CSR and performance in a developing country like Saudi Arabia.

The rest of the paper is organized as follows. In the next section, a theoretical framework is used to develop the model of CSR and performance of firms with prospective mediation of innovation and productivity to explain the missing link in the literature. The following section describes the methodology, sample and data of the study. It is followed by the summary of the data analysis. Then, concluded with findings together with theoretical contributions and implications for the managers. Finally, the limitations of the study with avenues for future research are listed.

2. Literature Review

In this section, a theoretical framework is built on the existing theoretical constructs. Then, a theoretical model is hypothesized using the existing paradigms of literature related to CSR, Innovation, Productivity and Performance of the firm.

2.1 Corporate Social Responsibility (CSR)

The concept of CSR elucidates the role of business in society (Vilanova et al., 2009), widely believed as one of the key issues for firms especially MNEs in twenty first century. In earlier studies, CSR concept has been advanced from diverse angles, such as business ethics (Solomon, 1992), social performance (Carroll, 1979; Swanson, 1995), corporate citizenship (Waddock, 2000; Zadek, 2001), stakeholder management (Donaldson & Preston, 1995; Freeman, 1994; Lozano, 2005), and corporate governance (Freeman & Evans, 1989). The concept of "*doing well by doing well*" articulates business case in favor of CSR in literature. That is, firms engaging in CSR earn certain number of rewards like increased financial performance (Orlitzky et al., 2003), reduced cost of doing business and financial risks (Godfrey, 2005), and enhanced corporate reputation (Turban & Greening,

1997), and better access to finance (Cheng et al., 2014). Despite the existence of many perspectives, Carroll's (1979) conceptualization of CSR continues a widely acknowledged approach, predominantly concerning empirical research. Based on Carroll (1979) framework, Maignan & Ferrell (1999, 2000) revealed broad range of CSR activities and developed a framework comprising four dimensions to measure CSR practices:

- *Economic Citizenship*: Organizations must be profitable and productive, and must meet consumer needs.
- *Legal Citizenship*: Organizations must work within existing legal frameworks.
- *Ethical Citizenship*: they should follow socially established moral standards.
- *Discretionary Citizenship*: organizations must do corporate voluntary work to help other people and to contribute to the overall welfare of society.

2.2 CSR and Financial Performance

In literature, there are several models relating CSR and Profitability, mostly founded on the classical asset valuation theory that attributes rational behavior to the individuals (Fama & French, 2004). In the field of Sustainable finance, the concept expands to the moral and social behavior of the agents, finding CSR as a tool for general welfare and societal benefits. Therefore, Zsolnai (2002) described economic agents as those whose moral psychology leads to their behavior. The literature has a lucid notion of firms' financial performance as the '*financial viability of an organization*' (Price & Mueller, 1986), In fact it is the degree to which a firm is able to achieve its financial and economic goals (Venkatraman & Ramanujam, 1986). The sustainable competitive advantage for firms results from the intangible paybacks of CSR (Branco & Rodrigues, 2006). Most of the studies found a positive relationship between CSR and Performance (Aupperle et al., 1985; Luo et al., 2014; Maignan et al., 1999; McGuire et al., 1988; McWilliams & Siegel, 2000; Orlitzky, 2008; Orlitzky et al., 2003; Waddock & Graves, 1997). CSR also reduces business risk (Moore, 2001; Orlitzky & Benjamin, 2001). Certain event studies also prove that CSR increase the profitability (Frooman, 1997). Therefore, it can be conjectured from literature that CSR leads to better corporate financial performance of firms. Hence, the first hypothesis is:

H1: *There is a significant positive relationship between CSR and financial performance.*

2.3 Mediating Factors

Theoretically, there can be several internal and external paybacks, which can be outcome of CSR practices resulting in improved financial performances by CSR adopting firms (Aguinis & Glavas, 2012).

In literature, focus has been on the performance outcome of CSR, yet there has been glossing over to the factors, which can be the contributor towards socially responsible performing firms. Therefore, a conceptual model is developed featuring innovation and productivity as potential missing link between CSR and firm performance.

2.3.1 Innovation

In literature, innovation is frequently operationalised as the intensity of firm's investments in R&D (Orlitzky & Benjamin, 2001). CSR literature has distinguished the verity that the linkage between CSR and firms' financial performance cannot be well comprehended without taking the role of Innovation into consideration, (McWilliams et al., 2006; McWilliams & Siegel, 2001). McWilliams & Siegel (2000) pointed out that if the innovation in firms is statistically controlled, the positive relationship among CSR and firms' financial performance will disappear. There exists positive relationship between innovation and firm's financial performance (Geroski, 1994; Geroski et al., 1997). Certain studies have found the association between CSR and innovation (Waddock et al., 2002). Furthermore, from the methodology literature, it may be concluded that innovation has a tendency to have the zero-order correlation between CSR and firms' financial performance *proviso* the relationship among innovation and CSR is positive instead of zero, or non-significant statistically (Schwab et al., 1999). Therefore, CSR acts as a means or vehicle for the innovation (Husted & Allen, 2007, 2006), particularly in the cases where CSR is directed towards innovation (Maxfield, 2008). Indeed, innovation helps proving the business case for CSR (Maxfield, 2008). Therefore, this study postulates innovation as mediator between CSR and firm's financial performance as per following hypotheses:

H2: *There is a significant positive relationship between CSR and innovation.*

H3: *There is a significant positive relationship between innovation and financial performance.*

H4: *Innovation mediates the relationship between CSR and Financial Performance.*

2.3.2 Productivity

Schaltegger & Figge (2000) linked CSR outcome with Efficiency gains. Heal (2005) in his theoretical research proved with giving case examples that CSR is positively associated with efficiency gains, improved employee

productivity and reduced capital costs. Porter & Vander Linde (1998) also found evidence in their research for association between CSR and increase efficient resource usage. Rondinelli & London (2002) found the efficiency gains and cost reduction as outcome of CSR practices. Epstein & Roy (2001) proved the efficiency gains & cost reductions as business case for CSR with the help of both qualitative and quantitative analysis. Vilanova et al. (2009) argue that CSR leads to learning that generates innovative ideas and practices that lead to firm competitiveness. Vilanova et al. (2009) found productivity to be one fact of the firm competitiveness; which this study focuses on. This study anticipates a positive association between CSR and firm productivity, building on the premise of Porter & Kramer (2011), and Vilanova et al. (2009), in similar vein as the earlier studies (Greening & Turban, 2000; Porter & Kramer, 2011; Stuebs & Sun, 2010). CSR activities foster environment inside the firm, which may lead to higher productivity and in turn lead to the financial performance. Therefore, productivity can be postulated as mediator in CSR relationship with firm financial performance. Hence, the following hypotheses are formed:

H5: *There is a significant positive relationship between CSR and productivity.*

H6: *There is a significant positive relationship between productivity and financial performance.*

H7: *Productivity mediates the relationship between CSR and Financial Performance.*

2.3.3 Innovation and Productivity Intermediation

Crépon et al. (2000, 1998) showed empirically that innovation output drives firm productivity. Similarly, while using a sample of 735 service firms, Cainelli et al. (2006) found that innovation activities have positive impact on productivity. Moreover, productivity and innovation operate as a self-reinforcing mechanism, which further boosts performance. Norris et al. (2012) find that innovation has an effect on productivity. Therefore, following hypothesis is formed:

H8: *There is intramediatory relationship of Innovation and Productivity in a relationship between CSR and financial performance.*

2.4 The Model and Hypotheses

This study suggests a conceptual Model as deduced from the literature. The CIPP (CSR, Innovation, Productivity, Performance) Model consists of the following dimensions; CSR, Innovation, Productivity and Financial Performance (Figure 1). The hypotheses are shown in the figure below:

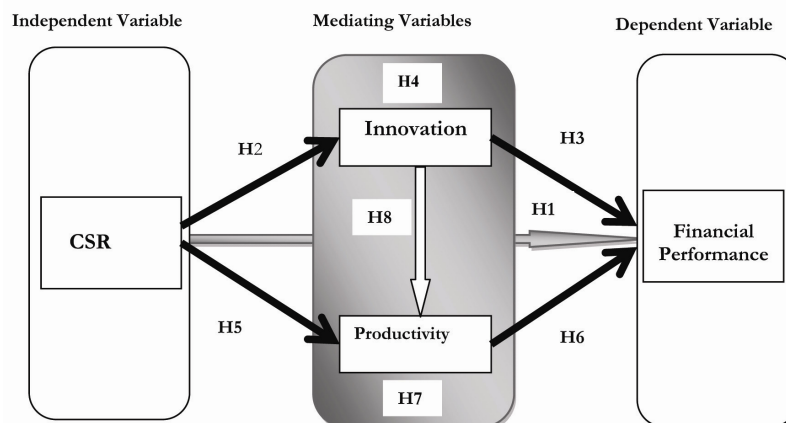


Figure 1. The CIPP model

3. Research Design and Methodology

In order to test the model hypothesis, this study administered survey using self-reported instruments. Confirmatory Factor Analysis was performed to test validity and reach a measurement model that was tested using Structural Equation Modeling (SEM) in AMOS.

3.1 Questionnaire Design

In order to conduct this empirical research, the variables in theoretical model were operated, using previously validated research instruments. The study adopts the instrument of Maignan & Ferrell (1999, 2001) to measure CSR in hypothesized model. The respondents were asked to respond on 1-5 Likert scale (Strongly Disagree to

strongly agree) for activities of their corresponding firms. Innovation was measured using the instrument of Calantone et al. (2002). An indigenous set of questions were framed to measure the construct of productivity. These questions were set to measure total productivity, partial productivity, and growth in productivity in the firms of the respondents (Fried et al., 1993; Heizer & Render, 2013). Financial performance of firms was measured using subjective measures (Venkatraman & Ramanujam, 1986). We have used subjective measures of performance because of absence of public and objective performance data for all sample firms. Therefore, respondents were asked questions related to Return on Investment (ROI), Return on Assets (ROA), Return on Sales (ROS), and Profit Growth relative to their peers in industry similar to Maignan et al. (1999, 2001). The Likert scale of 1-3 was used where 1 stands for below Average, 2 for average and 3 for above average relative to their competitors.

3.2 Sampling

In order to test the hypotheses, the firms operating in Saudi Arabia were selected for this study. Saudi Arabia is ranked as one of highest in MENA region and 22nd (2013) in the world on the “*Ease of Doing Business index*” (ranking by World Bank group for being investment friendly) (World Bank, 2014). Hence, this study provides a platform to analyze the practices in a different business culture. Considering the environmental, business and cultural perspectives, it become paramount to study this theoretical model.

Saudi Arabia is an oil rich country with GDP of \$1,681 billion and ranked 14th in the world (Purchasing Power Parity (PPP); 2015-World Bank data). The 60.4% of economy comprises of industrial sector, while 36.4% of services sector (World Bank, 2014). Over the past few years there has been growing awareness in Saudi Arabia about the environmental and social impacts of businesses on the society. Saudi Arabia being an emerging market with strong economy, yet growing industrial and services sector has made it an attractive source for an empirical study for CSR literature.

The companies were selected in a stepwise process. *Tadawul All-Share Index (TASI)* is the index of stock exchange in Saudi Arabia. In the first step, listed companies in TASI were selected. There are 165 listed companies in Saudi Arabia which were targeted for this study. Since, a reasonable number of large companies in Saudi Arabia are not listed, therefore, in the next step the 213 large and medium sized companies were selected from the directory of private companies published by the Ministry of Commerce and Industry of Saudi Arabia (*Statistical Report*, 2013). It makes the sample size of Saudi companies as 378.

3.2.1 Survey and Response Rate

The survey was sent to the person in-charge for the CSR in respective firms using both paper and web based platforms. Emails were sent as follow up to ensure better response rate. After receiving the responses, missing value analysis was performed and dropped the ones with high missing values. The remaining data included a total of 197 responses, the response rate for combined sample is 52.12%. It is an acceptable response rate as per the methodological studies (Anderson & Gerbing, 1988; Hair & Black, 2010).

4. Data Analysis

After data collection, data analysis is performed to examine the postulated model and its paths. The following section explains the steps taken.

4.1 Analytical Strategy

In order to do the analysis, a multipronged strategy was employed. Although, well-established instruments were used to measure the constructs, yet, second order Confirmatory factor analysis (CFA) is performed to investigate the validity and reliability of scales in Saudi Arabia using AMOS (Anderson & Gerbing, 1988; Bentler, 1990). SPSS was used for reliability analysis. CFA was used to reach an adequate fit factor structure for the measurement model and to examine the convergent and discriminant validity (See Table 3 for details).

In the next step, Structural Equation Modeling (SEM) technique was used on the hypothesized structure. The target was to investigate the multimediation by Innovation and Productivity in CSR and Financial Performance relationship. In the following paragraphs, details of each step are narrated. Simultaneously, data is tested for common method variance using multiple methods to ensure the quality of the data (Podsakoff et al., 2003).

4.2 Preliminary Analysis

The hot deck method was used for replacing missing value (Myers, 2011; Reilly, 1993). It was followed by the tests of normality, and exploratory factor analysis for preliminary results. The descriptive statistics of the sample are tabulated as below in Table 1. It is evident that the sample is well diversified. There have been responses from managers from different sectors, experience levels, and with various products.

Table 1. Sample characteristics

	Frequency	Percentage
Type of operations		
Manufacturing	95	48.22
Services	102	51.78
Total	197	
No of years		
1- less than 5 years	49	24.87
5- less than 10 years	36	18.27
10- less than 15 years	40	20.3
15 years or more	72	36.55
Total	197	
No of products		
1-3	27	13.71
4-6	32	16.24
7-12	45	22.84
More than 12	93	47.21
Total	197	

4.3 Validity and Reliability Measurement

A pilot study has checked the compatibility, and face and content validity of instruments used in the particular population and culture. The construct validity checks how well the results gained from the use of instrument do fit the theory (Cavana et al., 2001) and the content validity is checked by using the constructs that can be validated by peer experts. Both construct and content validity were examined in this study (Hair & Black, 2010). The reliability of construct is deemed appropriate if value remains at least 0.7 for exploratory research and 0.8 for basic research (Nunnally, 1978). The Composite Reliability (CR), Cronbach alpha was calculated for measuring reliability while Average Variance Extracted (AVE), and Average Shared Variance (ASV) were measured to examine Discriminant Validity and Convergent Validity of factor structure (See Table 2). For convergent validity, the desirability range for AVE is to be higher than 0.5 and CR be greater than AVE and for discriminant validity, ASV should be less than AVE (Hair & Black, 2010).

Table 2. Validity details

	CR	AVE	ASV
Innov	0.86	0.55	0.32
Prod	0.76	0.52	0.11
FP	0.83	0.55	0.11
CSR	0.92	0.75	0.33

Furthermore, the second order CFA was performed to measure construct validity and factor structure of the hypothesized model since CSR is second order construct in the study with four dimensions. Only items with higher loadings were retained to reach a factor structure to be further used. Table 3 shows the summary of CFA. It shows the corresponding factor structure and the loading items and their scores.

It is clear from results that the items on each factor met the requirements of reliability and validity (Nunnally, 1978). As the discriminant validity and convergent validity are not issue in the factor structure (See table 1), therefore next step is to measure the hypothesized paths using SEM.

Table 3. Confirmatory factor analysis summary

Variables	Code	Item Details	
CSR $\alpha=0.88, CR=0.92,$	ECO	Economic citizenship	0.92
	LEG	Legal citizenship	0.77
	ETHIC	Ethical citizenship	0.89
	ENV	Environmental/ discretionary Citizenship	0.88
INNOVATION $\alpha=0.857, CR=0.856$	INN1	Our company frequently tries out new ideas	0.81
	INN2	Our company seeks out new ways to do things	0.89
	INN3	Our company is creative in its methods of operation	0.82
	INN4	Our company is often the first to market with new products and services	0.67
	INN6	Our new product introduction has increased over the last 5 years	0.45
PRODUCTIVITY $\alpha=0.75, CR=0.76,$	PR1	Always our company's output is greater than input	0.81
	PR2	In most cases, our company's output is greater than input	0.82
	PR3	In 50% of the cases, our company's output is greater than input	0.5
Financial Performance $\alpha=0.86, CR=0.83,$	FP1	Relative to our competitors, Our Return On Investment has been	0.84
	FP2	Relative to our competitors, Our Return On Assets has been	0.67
	FP3	Relative to our competitors, Our Sales Growth has been	0.57
	FP4	Relative to our competitors, Our Profit Growth has been	0.86
ECO	ECO1	We closely monitor employees' productivity	0.54
	ECO3	We have been successful at maximizing our profits	0.56
	ECO4	Top management establishes long-term strategies for our business	0.67
LEG	LEG2	All our products meet legal standards	0.57
	LEG3	The managers of this organization try to comply with the law	0.78
	LEG4	Our contractual obligations are always honored	0.68
ETHIC	ETH1	Our business has a comprehensive code of conduct	0.63
	ETH4	We are recognized as a trustworthy company	0.65
	ETH5	Fairness toward coworkers and business partners is an integral part of our employee evaluation process	0.78
	ETH6	A confidential procedure is in place for employees to report any misconduct at work (such as stealing or sexual harassment)	0.7
	ETH7	Our salespersons and employees are required to provide full and accurate information to all customers	0.6
ENV	ENV3	Our business encourages employees to join civic organizations that support our community	0.61
	ENV5	Our business gives adequate contributions to charities	0.59
	ENV6	A program is in place to reduce the amount of energy and materials wasted in our business	0.71

Note: α =Cronbach Alpha, CR= Composite Reliability,

4.4 Model Testing

In this section, results of SEM for testing the direct path and hypothesized mediatory relationships are mentioned.

4.4.1 Direct Path Testing

In first step of testing the model by SEM, the first hypothesis direct path relationship between CSR and financial performance was tested. Figure 2 represents the model tested in AMOS.

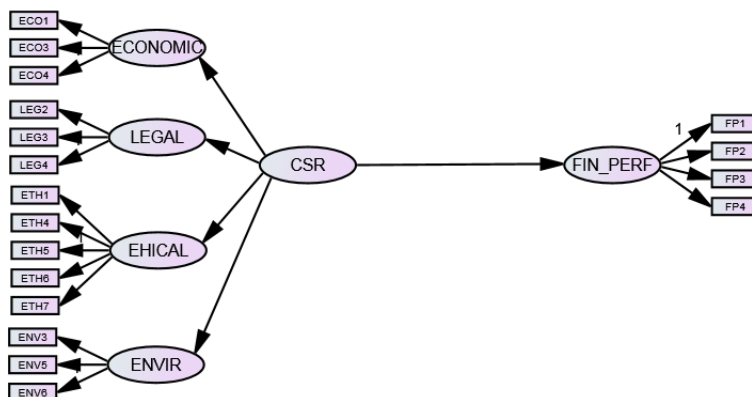


Figure 2. SEM direct path diagram

The path between CSR and Financial Performance is significantly positive with $\beta=0.4^{**}$. The Table 4 shows the details of path analysis with modification indices. It can be observed that it shows adequate fit for the hypothesized path (Bentler, 1990; Hair & Black, 2010). Therefore, H1 is accepted.

Table 4. SEM summary

Hypothesized Relationships		SA
Predictor Variable	Criterion Variable	Standardized Regression Weights
CSR	FP	0.4**
Desirability		
Modification indices	Range	SA
CMIN/DF	< 3 good	1.82
RMR (Root Mean Square Residual)	< 0.09 Good	0.05
IFI (Incremental Fit Index)	> 0.9 Good	0.93
TLI (Tucker Lewis Index)	> 0.9 Good	0.92
CFI (Comparative Fit Index)	> 0.9 Good	0.93
RMSEA (Root Mean Square Error of Approximation)	< 0.08 Good	0.065

4.4.2 Hypothesized Model Testing

In this step, the complete model was run to test the remaining hypotheses. A SEM path diagram was built in AMOS to run the tests. Figure 3 portrays the path diagram of the model structure.

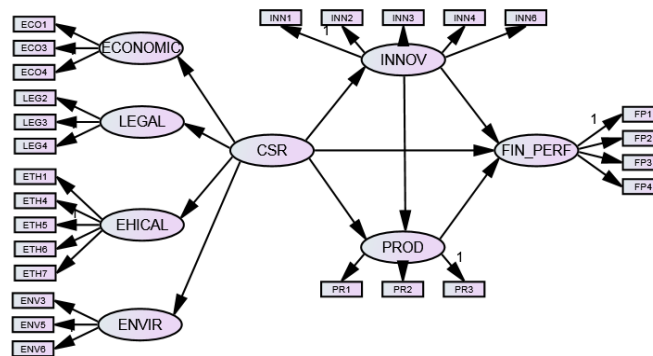


Figure 3. SEM path diagram of hypothesized model

Table 5. Initial model path analysis summary

Hypothesized Relationships		SA
Predictor Variable	Criterion Variable	Standardized Regression weights
CSR	FP	0.22
CSR	Innovation	**0.81
CSR	Productivity	0.003
Innovation	Productivity	*0.39
Innovation	FP	0.2
Productivity	FP	**0.251
Desirability		
Modification indices	Range	SA
CMIN/DF	< 3 good	1.81
RMR (Root Mean Square Residual)	< 0.09 Good	0.06
IFI (Incremental Fit Index)	> 0.9 Good	0.91
TLI (Tucker Lewis Index)	> 0.9 Good	0.9
CFI (Comparative Fit Index)	> 0.9 Good	0.9
RMSEA (Root Mean Square Error of Approximation)	< 0.08 Good	0.06
PCLOSE	> 0.05 Good	0.01

The SEM output for hypothesized relationships in the proposed model is given in Table 5. It can be seen that path for CSR to Financial Performance (FP) is not significant. Similarly, there is no significant relation between CSR and productivity as well as between Innovation and Financial performance. On the other hand, CSR and Innovation were found being strongly associated at $\beta=0.81$. Similarly, path from productivity to FP is significantly valued at 0.251^{**} and 0.495^{**} . The modification indices are also under acceptable range as shown in the Table 5 (Bentler, 1990). Hence, H2, H6 and H8 are accepted, whereas, H3 and H5 are rejected.

In light of this evidence, a new model was drawn by dropping the insignificant paths. In the following section, path analysis of the modified model will be discussed.

4.4.3 Post-Analysis Model

In light of the empirical evidence, the hypothesized model was modified as shown in Figure 5. It shows the path between CSR to Financial Performance (FP) completely mediated by Innovation and Productivity. The path shows relation from CSR to Innovation to Productivity to Financial Performance.

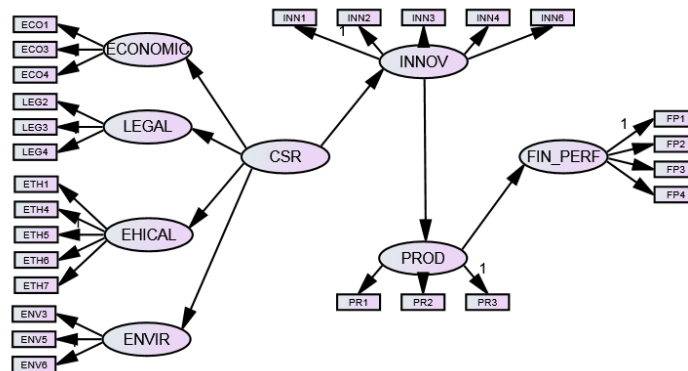


Figure 4. Post analysis SEM path diagram

In Table 6, co-efficient between CSR and Innovation, Innovation and productivity and between Productivity and Financial Performance (FP) shows the significant path. The proposition of innovation and productivity as mediators in path between CSR and FP is accepted. The co-efficient for CSR-innovation relationship is 0.803 in Saudi sample while Innovation-productivity is 0.425. On the other hand, path coefficient from productivity to Financial Performance (FP) is 0.414, being statistically significant at 0.05.

It is evident from the results that modification indices are within acceptable range. These results show that innovation and productivity mediates the relationship between CSR and Financial Performance. There exists inter-mediatory relationship between innovation and productivity. Hence, the hypotheses regarding mediation (H4, H7 and H8) are accepted.

Table 6. Post analysis model path analysis summary

Hypothesized Relationships		SA
Predictor Variable	Criterion Variable	Std. Regression Weights
CSR	Innovation	0.803**
Innovation	Productivity	0.425**
Productivity	FP	0.414**
Modification indices		Desirability Range
CMIN/DF		< 3 good
RMR (Root Mean Square Residual)		< 0.09 Good
IFI (Incremental Fit Index)		> 0.9 Good
TLI (Tucker Lewis Index)		> 0.9 Good
CFI (Comparative Fit Index)		> 0.9 Good
RMSEA (Root Mean Square Error of Approximation)		< 0.08 Good
		SA
		1.86
		0.07
		0.9
		0.89
		0.9
		0.07

5. Findings and Conclusion

The objectives of this study were to build and test a theoretical model to identify the mediating factors in the linkage between CSR and performance in a developing country; Saudi Arabia. The results do indicate concisely that there is a mediation of Innovation and productivity in the CSR effect on the performance of firms in the study.

It is the first study of its kind, which couched on the premise that researchers have mainly glossed over the missing link between CSR and performance literature. The mediation by innovation and productivity explains this missing link. Consequently, a robust empirical enquiry was carried out to add, these mediating factors, to the theory. These findings offer several implications for theory and research on CSR, innovation, productivity and performance.

First of all, it is proved that there is a positive effect of CSR activities on the financial performance of the companies. It is lending credence to the business case of CSR in the firms especially Saudi companies (Aguinis & Glavas, 2012; Besieux et al., 2015; He et al., 2012; Maignan & Ferrell, 2000; Mefford & Johnston, 2016; Orlitzky, 2008; Stuebs & Sun, 2010; Udomkit, 2013; Waddock & Graves, 1997).

Secondly, from the perspective of international business, an important finding is that that CSR is a vehicle for business performance not only in western and developed countries but also in developing countries as mentioned in earlier studies (Park & Ghauri, 2014; Ritvala et al., 2014). Therefore, this research can be of interest to the Multinational Enterprises (MNEs) working or intend to work in these countries. It has attempted to fill the gap in literature regarding lack of research on CSR in Asian and developing countries (Egri & Ralston, 2008).

Thirdly, it adds to the literature by solving the myths about the black box between CSR and financial performance. Therefore, this study advances and probes the factors that may mediate the CSR path to the firm's performance assuggested by McWilliams & Siegel (2000). It also builds upon the research of Surroca et al. (2010) who suggested the mediation of certain factors between CSR and financial performance relationship. The mediating factors of innovation and productivity were proved as vehicle for financial paybacks after adopting CSR practices. In fact, it has been confirmed that CSR leads to innovation, which in turn enhances productivity leading to the firm's financial outcomes. The insignificance of direct path between CSR and productivity signified complete mediation through innovation. The findings of mediation by innovation in the path from CSR to productivity add another theoretical contribution toward CSR literature. The mediatory role of innovation is in line with the previous studies which distinguished the verity that the linkage between CSR and firms' financial performance cannot be well comprehended without taking the role of innovation into consideration (Burke & Logsdon, 1996; McWilliams & Siegel, 2001; Porter & Kramer, 2011). Likewise, the path between innovation and financial performance is mediated by productivity. This study has suggested empirically by developing and testing a model that innovation and productivity are factors to be incorporated while practicing CSR in the firms. It advances the studies about CSR and innovation (Waddock et al., 2002), CSR and productivity (Paul & Siegel, 2006; Shadbejian & Gray, 2006; Stuebs & Sun, 2010; Vitaliano & Stella, 2006) and innovation and financial performance (Geroski, 1994; Geroski et al., 1997). Thus, this study has contributed to the literature of CSR and performance, by postulating the presence of mediatory roles of innovation and productivity.

Fourthly, it also endorses the OECD report (2009) about "*new nature of innovation*" which suggested that socially responsible acts in fact increasingly foster the innovation inside firms. In addition, the findings advocate that by CSR implementation at a strategic level leads to the creation of a competitive advantage by enhanced innovation and productivity which leads to improved firm's performance. This is in line with the Resource Based View (RBV) and strategic paradigms of literature (Asongu, 2007; Barney, 1991; Porter & Kramer, 2011).

This study has attempted to fill the gap in literature about the mediating factors in the CSR and performance linkage. It is for the first time that the CSR—Performance model with multiple mediators was hypothesized and tested. Empirical evidence was found for these mediating relationships. It has added to the theory of strategic CSR that it provides an enabling environment for innovation which in turn enhances the productivity and performance of organization in line with the previous works (Asongu, 2007).

Moreover, it shows CSR awareness in Saudi Arabia where it is relatively a newer concept and certain previous studies already manifested the similar findings (Ali, 2009; Gravem, 2010; Naser & Nuseibeh, 2003).

6. Managerial Implications

The findings have lucidly suggested that innovation and productivity are well enhanced under the CSR adapted firms. Innovation and productivity have both emerged as factors which are must to CSR adaptation in firms. Hence, there is implication for mangers that companies withCSR are higher in innovation output leads to

improve in their productivity and performance.

On the practical managers' side, it has validated the concept of CSR implementation as a financially viable tool. It has added to the managers' tool to implement the CSR along with innovation and productivity as an intact approach with all leading to the objective of increased financial and economic value for the firms.

It has thus addressed the much concerned financial value issue for the local as well as foreign investors and multinationals working or intend to work in the MENA region especially Saudi Arabia. Thus, it provides the toolset of CSR implementation to the incumbent management and the investors of local as well as MNEs for the improved financial value of the firms. It has conjectured that CSR acts as a vehicle to enhanced innovation friendly environment with productivity improvement in the organization at same time all leading to better financial performance of the firms.

Consequently, it is ascertained in this study that this model of strategic CSR along with innovation and productivity may fetch both short and long term financial paybacks to a firm who is socially responsible. The management of MNEs with certain CSR programs must recognize that CSR as not being sheer charity or philanthropy rather it must be advanced from a strategic perspective as it helps improving innovation and productivity that brings financial benefits to the firm in total.

Ever since, private firms operating in Saudi Arabia were included the in the sample, the results proving the hypothesis of CSR leading to innovation, productivity and performance may also allure the private sector to invest in CSR activities as CSR is proved to enable environment fostering innovation and productivity and consequently improving financial performance of socially responsible firms.

7. Limitations and Future Research Directions

This study has shed the light on the mediating roles of innovation and productivity in the CSR and performance relationship. This study can be taken as point of departure for further enquiries into the black box between CSR and performance relationship. The study has been limited to use cross sectional data and single source of information, which can be checked and validated by using longitudinal and multisource data to avoid the common method variance associated with such type of studies. The financial performance was measured subjectively which can be validated by using objective measures to further validate the findings of this research.

Furthermore, the study has used Maignan & Ferrell framework for measuring the CSR, but in future, other frameworks can be used to test these findings. The model is investigated in the perspective of only one country, yet the focus can be enlarged in future by inclusion of more countries on global level.

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