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THE NEXUS BETWEEN CORPORATE SOCIAL RESPONSIBILITY AND CORPORATE PERFORMANCE: AN EMPIRICAL EVIDENCE

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ABSTRACT. Background: This study investigates the relationship between CSR (corporate social responsibility) practices and enterprise performance. We have collected the data from 248 different enterprises located in different industrial areas of Karachi, mainly including S.I.T.E industrial area, Federal-B industrial zone, and West Wharf industrial area, Karachi Export processing zone, Bin Qasim industrial zone, and Korangi industrial zone.

Methods: The study mainly employed SEM (structural equation modeling) to test hypotheses in AMOS software. The practices of CSR were measured through 'green design of products', 'ethical leadership', 'building school and hospital infrastructure', and 'environmental protection training'.

Results: The findings revealed that ethical leadership is strongly and positively correlated with CSR practices, which confirmed that ethical leadership has strong potential to implement CSR practices inside and outside of the firms. The results further indicate that CSR practices enhance enterprise performance.

Conclusions: This research provides insight into the relationship between CSR practices and enterprise performance. Further, this study will help senior managers, and practitioners to understand the significance of CSR practices.

Key words: Corporate social responsibility, Green product design, Ethical leadership, Enterprise performance.

INTRODUCTION

During 1952, the concept of CSR introduced by Brown states that while adopting business strategies and decision, enterprises need to focus on social and environmental sustainability [Bowen, 1953]. In simple words, firms need to work on triple bottom line (economic, social and environment). Hossain & Siwar, [2009] highlighted that the key objective of CSR is to improve the lifestyle of people through different charity works including building a school, providing scholarships and medical treatment to needy people, and fixing water cleaning plants.

Since the last couple of decades, a number of Pakistani firms have started to adopt CSR ideology through different charity works. In light of the EU, CSR is an idea that enterprises integrate social and environmental concerns into their business strategies, decision, and operations for the betterment of society Elasrag H. [2015]. It is necessary for the business community to be well aware of the role and responsibility it has toward the local community. Corporate social responsibility not only contains participating in charitable events, but also includes implementing the selfresponsibility to build a better society through foreseeing/envisioning blueprint, strategies, and policies for socio-economic justice, and being aware of their responsibility for the local [Zinkin 2004]. community welfare Incontrovertibly, the business community has been highly educated to make a plan for changing society, align and combine their

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firms' development objectives with a social plan of local government for maximum output [Zinkin 2007, Khan et al. 2016].

EDHI foundation is one of the biggest welfare organization in Pakistan. The organization was established by Abdul Sattar Edhi and his wife Bilquis Edhi in 1951. It provides 24-hour emergency assistance across the country and even abroad. EDHI foundation was held in the "Guinness Record" for the world's largest volunteer ambulance. The organization has two private jets, one helicopter, 28 rescue boats, and thousands of ambulances to assist in victim areas [Edhi 2018]. On the other hand, Saylani is a nonprofit organization established in 1999 by Maulana Bashir Faroog Oadri. The organization mainly focuses on emerging services, providing free food, education, and health care services to needy and poor people. The Saylani is second biggest welfare organization in Pakistan and the funding of organization came from the different corporate sector and rich people under the name of donations and Zakat. The organization has planned to build "Saylani University" where students can get higher education including master and Ph.D. without spending a single penny. [Saylani 2018].

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

In the Pakistani community, thousands of enterprises are spending money on different CSR projects mainly including environmental protection training and donating money for building school and hospital for needy and low wage people. To assessing Pakistani enterprises achievement in CSR projects, we have decided some parameters that will be used to collect data from different firms.

ETHICAL LEADERSHIP

According to the stakeholder theory, ethical management and corporate social responsibilities are positively correlated. The theory mainly addresses values of supervision on an enterprise between all of its stakeholders [Zhu et al. 2013]. Undeniably nowadays corporate managers operate in a very complex global environment and it is supportive to deliberate leadership in the background of stakeholder theory because the firm is defined as a group of managers, employees, suppliers, distributors, and community, who have a legal and moral role in the enterprise. In other words, it is suggested that firms should balance the interests of all the stakeholders [Zhu et al. 2013].

Brown, [2005] highlighted that ethical leadership is "the demonstration of normality appropriate behavior" throughout interpersonal relationships, and motivate employees through appropriate rewards and appreciations for their involvement and efforts in the CSR projects. The idea ethical leader lives with principles and values and has the potential for contribution to the improvement of the community [Reynolds and Ceranic, 2007. In the perspective of stakeholders, ethical leaders are the ones that know the art of creating a good relationship with all major stakeholders and they enhance motivation and commitment by incentives to encourage coordination, information sharing and collaboration for attaining sustainable change outside and inside of the firm. For instance, ethical leaders would take moral responsibility to fulfill the needs of their customers by providing safe and green products [Khan and Dong 2017].

There are numerous empirical studies conducted to observe its antecedents and results/outcomes. The personality traits of firm leaders like conscientiousness, moral values and principles are found to be positively correlated with ethical leadership [Mayer et al. 2012]. A number of researchers study on Chinese firms to examine the nexus between ethical managerial role and corporate social responsibility practices. Their results indicate that ethical leadership is strongly and positively correlated with CSR activities [Zhu et al. 2013, Liu et al. 2013, Groves et al. 2011, Vitell et al. 2003]. Therefore, we formulate the following hypotheses:

H1a: Ethical leadership is strongly and positively associated with Green product design

- H1b: Ethical leadership is strongly and positively correlated with environmental protection training and scholarships
- H1c: Ethical leadership strongly and positively participate in building school and hospital infrastructure.

GREEN PRODUCT DESIGN

Enterprises adopt a green design in their products to satisfy the needs of their consumers and improve environmental and social sustainability in terms of reduction in hazardous materials, and pollution free environment [Khan, Dong 2017]. In addition, green product design significantly contributes to economic benefits through cost reduction, recycling, and remanufacturing [Stanaland 2011]. Green practices in product design and business operations build customer trust and play a vital role in building a positive image of firms [Fombrun, Shanley 1990]. An empirical study conducted by Ehsan and Kaleem [2012] to investigate the effect of CSR on firms' performance. The results confirmed that CSR activities related in terms of greening business operations and product design significantly helps the enterprise to improve their profitability, increase firm reputation, and eliminate waste from different business processes. [Khan et al. 2016] highlighted that green practices adoption in supply chain and business operations are mainly based on managerial decisions, which is the reflection of their awareness on environmental issues. ethical and moral values.

Firms adopt different CSR projects and practices in their business operations including, recycling, green design, usage of renewable energy, providing training and scholarships to poor and needy students, building school and hospital in different rural areas for the betterment of society [Ehsan, Kaleem 2012]. Büyüközkan and Çifçi, [2012] claimed that due to the proper implementation of the green design in their products, firms may mitigate and/or control 80% negative effect on the environment, which will noticeably build a positive image of the firm. Furthermore, the green design minimizes the purchasing and production costs and increases the value of products. Thus, we propose the hypothesis given below:

H2: Green design of a product is strongly and positively associated with enterprise performance

ENVIRONMENTAL PROTECTION TRAINING

The concept of environmental protection training and programs is to understand the sensitivity of environmental sustainability. A number of environmental awareness training contain the necessity of corporate sector to protect the flora and fauna lives. In Pakistan, a number of enterprises have implemented ISO 14001 to mitigate the harmful effects of their manufacturing and supply chain operations. The ISO 14001 basically assists enterprises with a framework for better management control on their business operations. As different business operations mainly logistics and production emit heavy carbon emissions, nitrogen, and Sulphur, which not only damage to environmental sustainability but also create numerous health problems [Sheldon 1997].

companies Pakistani are aggressively contribution to CSR activities such as providing training and scholarships to poor and needy students. Engro Corporation, one of the leading firm in the fertilizer industry provides scholarships to poor students for continuity of their education. In addition, the firm also conduct free technical training on livestock and farming, which is helping poor people to find technical jobs and contribute to country GDP [Engro Corporation 2018]. A study conducted by Manrique, [2017], to investigating the effect of corporate social responsibility in terms of environmental protection training on the financial performance of firms. The results revealed that environmental training improves enterprise performance and help to build a competitive edge. In the similar line, Rodriguez-Fernandez, [2016] results show that environmental friendly training provided by enterprises allow employees to undertake responsibility and also make it easier for enterprises to shift their polluted processes towards green and efficient processes. On the

basis of the above-cited papers, we develop the following hypothesis:

H3: Providing environmental protection training to employees and customers have a positive effect on firm performance.

BUILDING SCHOOL AND HOSPITAL INFRASTRUCTURE

WBCSD (World Business Council for Sustainable Development) highlighted that CSR is integrating the social, economic and environmental aspects of any firms, and causing sustainable development in long run [Yawar 2009]. There is no doubt that Pakistan is suffering from serious environmental and social problems including shortage of clean drinking water, climate change, air and water pollution, the unsatisfactory rate of literacy, and limited medical treatment machines available in hospitals [Khan, Dong 2017, Abdullah et al. 2017]. On the other hand, CSR activities also enhance employees' job satisfaction, customer and suppliers trust, and create a positive image and good reputation in the domestic and international arena. [Hameed 2010].

Many Pakistani firms have a separate department of CSR such as Agha Steel Industries, Berger Paints Pakistan Limited, Fauji Foundation, and Engro Corporation, who plan their own CSR programs and monitor the effectiveness of their programs. The CSR projects not only bring about community sustainable development but also improve firm economic performance in terms of customers and employees satisfaction, which build a competitive edge and create a positive effect on firms' long-term profitability. In a similar line, Zhu [2013] conducted empirical research in southern China. The findings revealed that CSR projects strongly create a positive effect on firm performance, and also help firms to explore new opportunities. Thus, we propose the hypothesis given below:

H4: Participating in building school and hospital infrastructure help firms to improve their performance.

PROPOSED METHODOLOGY

This research investigates the impact of corporate social responsibility practices on Pakistani enterprises performance. Initially, we create a pre-test questionnaire for a pilot study, and after consultation with industry experts, we built new questionnaire for this research on the basis of four-point Likert scale (4= strongly agree; 3= agree; 2= disagree and 1=strongly disagree). The questionnaire is based on 'Ethical leadership', 'Building school and infrastructure', 'Environmental hospital friendly training and scholarships', ' Green product design', and 'firm performance'. The definitions of the construct are given in Table 1, and the proposed model is drawn in Fig. 1.

		Table 1. Definitions of Constructs
Variables	Abbreviations	Definitions
Ethical leadership	EL	Ethical leaders have desirable behaviors and qualities such as honesty, trustworthiness, and fairness in taking responsibility for their own actions, as well as using two-way communication, reinforcement, and appropriate appreciations, awards and punishments to hold subordinate accountable for their actions (Zhu et al., 2013).
Firm performance	FP	Firm performance shows the economic, operational performance, and environmental performance of the firm as compared to the industry average (Khan & Qianli, 2017).
Green design of products	GDP	Green design facilitates the remanufacturing, recycling, reuse, and recovery of component parts. Moreover, an ecological design also avoids the use of harmful materials and chemicals in manufacturing processes (Khan et al., 2017; Khan & Qianli, 2017).
Environmental training and scholarships	Env.P	Environmental protection training and providing scholarships to needy students enhancing the knowledge and evoking the responsibility of employees and consumers to protect the natural beauty. In addition, scholarships help needy people to get a higher education.
Participating in building school and hospital infrastructure	BSH	Firms' involvement and participation in building school and hospital infrastructure in rural areas facilitate poor people to get an education and medical treatment.

During September 2017 to March 2018, the questionnaire was sent to the 520 enterprises operating in different industrial areas of Karachi, mainly including S.I.T.E industrial area, Federal-B industrial zone, West Wharf industrial area, Karachi Export processing zone, Bin Qasim industrial zone, and Korangi industrial area. These companies completed questionnaireswithnon-probabilityconvenience sampling (Gray, 2004). A total of248questionnairesfilledcompletely

received, while the effective response rate was 46.7%.

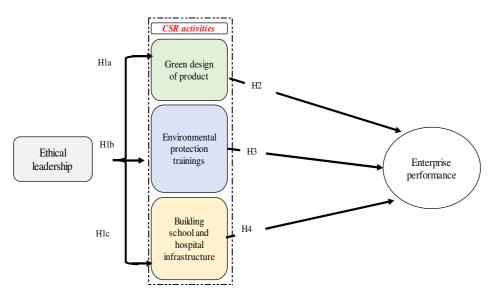


Fig. 1. The proposed model

Demographics	Frequency	%
Firm category		
Food manufacturing	9	4
Beverage product manufacturing	5	2
Tobacco product manufacturing	3	1
Electronics products	27	11
Rubber manufacturing	29	12
Artificial leather firms	19	8
Chemical manufacturing	64	26
Plastic manufacturing	31	13
Machinery manufacturing	11	4
Furniture manufacturing	8	3
Paper manufacturing	15	6
Steel and Iron manufacturing firms	4	2
Fertilizer industry	6	2
Wood product manufacturing	13	5
Transportation equipment manufacturing	4	2
Age of firm		
Less than 6 years	11	4
6 to 10 years	71	29
11 to 15 years	122	49
16 to 20 years	29	12
More than 20 years	15	6
Level of responsibility		
Senior managers	26	10
Middle managers	98	40
Supervisors	124	50
Experience of respondents in their field		
Less than 3 years	9	4
Between 3 to 5 years	97	39
Between 6 to 10 years	125	50
More than 10 years	17	7

The respondents were selected from 15 different industries, including steel and iron, chemicals, rubber, plastic, electronic products,

and fertilizer manufacturing firms. Mainly the questionnaires were filled by a supervisor, middle and senior managers. The SEM (Structural Equation Modeling) method has been adopted in AMOS (Analysis of Moment Structure) to test study hypotheses. The firm demographic profile is given in Table 2.

RESULTS AND ANALYSIS

The research performed reliability, descriptive statistics, correlation matrix, and EFA and CFA analysis to proceed with structural equation modeling. We performed the exploratory factor analysis to categorize Likert-scale questionnaire items into the 5 dimensions (i.e. ethical leadership, enterprise performance, product green design. environmental protection training, and building school and hospital infrastructure). The Kaiser-Meyer-Olkin and Bartlett's measure of sampling adequacy (84.1) shows that the sample is suitable for EFA analysis because greater than 0.70 value of KMO was suggested by Leech et al., (2005). Furthermore, the KMO test reveals that matrix cannot be seen as an identified matrix and these five constructs

satisfactory are related with each other to complete a significant and meaningful factor analysis.

Table 3. KMO and Bartlett's Test

Kaiser-Meyer-Olk		0.841
Sampling Adequa	cy.	
Bartlett's Test of Sphericity	Approx. Chi-Square	5412.3
	df	485
	Sig.	0.000

Moreover, through the application of an orthogonal (varimax) rotation with Kaiser Normalization, the early solution of EFA was rotated, which extracted the required five unlinked factors. They made up the variance of enterprise performance 26.11, green design of products 19.14, ethical leadership 15.02, environmental protection training 13.41, and building school and hospital 10.35. However, 84.03 cumulative percentage of the total variance was explained by these five constructs. The totally 25 items were loaded onto their respective variables.

Table 4. Exploratory Factor Analysis (N = 248)

pha	1 0.795 0.822 0.811 0.817 0.867 0.841	2 0.812 0.795	3	4	5
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	3.621	2.518	2.316	1.881	1.746
	26.11	19.14	15.02	13.41	10.35
	26.11	45.25	60.27	73.68	84.03
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Rotation method: Varimax with Kaiser Normalization.

Factor loadings less than 0.40 are omitted to maintain clarity

Table 5 demonstrates descriptive statistics and correlation. Hair et al., (2010) suggested that the confirmatory factor analysis model is established before the structural model is well checked/tested. Therefore, we perform a CFA model to validate the measurement model.

				Table 5. Ex	ploratory F	actor Analy	vsis (N = 248)
	Mean	Std. Dev.	1	2	3	4	5
Enterprise performance	3.12	0.87	1				
Ethical leadership	2.94	0.76	0.381*	1			
Green design of products	2.88	0.71	0.163	0.322**	1		
Env. protection training	2.75	0.68	0.391*	0.411	0.211*	1	
Building school and hospital	3.11	0.85	0.267**	0.374*	0.307	0.216	1

*p 0.05 (2-tailed); **p< 0.01 (2-tailed)

Table 6 indicates the results of average variance extracted and composite reliability. The value of CR (composite reliability) and AVE (average variance extracted) of the five constructs is greater than 0.70 and 0.50, which shows good reliability and good convergent validity respectively [Molina et al., 2007]. In

addition, Chi-square statistics to the degree of freedom, five further goodness-of-fit measure were checked to assess whether the measurement model was fit or not. According to Byrne, [2010], these goodness-of-fit measure includes GFI, AGFI, NNFI/TLI, CFI, and RMSEA.

Table 6. Reliability and Validity

	Composite Reliability	Average Variance Extracted
Enterprise performance	0.92	0.69
Ethical leadership	0.89	0.78
Green design of products	0.77	0.64
Env. protection training & programs	0.76	0.61
Direct support to community	0.85	0.63

Table 7 indicates the measurement model of CFA, and its CMIN's ratio to the DF is 2.18 (p < 0.05) which is less than 3 as suggested by Hair et al., [2010]. Further model fit indices contain GFI = 0.91, AGFI = 0.86; TLI = 0.91, RMSEA = 0.07, and CFI = 0.95.

Table 7. Measures	of the	Model	Fit (CFA	and SEM)
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Goodness-of-fit measures	Recommended Values	CFA Measurement Model	SEM Structural Model
CMIN		241.88	191.14
DF		116	103
CMIN/DF	< 3	2.18	1.79
P Value	< 0.05	0.000	0.001
GFI	≥0.90	0.91	0.92
AGFI	≥0.85	0.86	0.88
TLI	≥0.90	0.91	0.94
CFI	≥0.95	0.95	0.96
RMSEA	≤0.08	0.071	0.058
ECVI	Lowest value	1.259	1.092

Note: a = Byrne (2010); b = Hair et al. (2010); c = Bagozzi and Yi (1988); d = Bentler and Bonett (1980); e = Browne and Cudeck (1993); f = no dertermined suitable range of values.

STRUCTURAL RELATIONSHIP BETWEEN ETHICAL LEADERSHIP, GREEN PRODUCT DESIGN, ENVIRONMENTAL PROTECTION TRAINING, BUILDING SCHOOL, AND HOSPITAL INFRASTRUCTURE, AND ENTERPRISE PERFORMANCE

The SEM has been adopted to examine the structural relationship among all the five constructs without removing the effect of any construct during testing hypothesis. According to the Lei & Wu, [2007] structural equation is a large sample technique, which is suitable for greater than 200 sample size. A sample of 248 valid responses seems suitable for adopting SEM in this research. Table 7 illustrates that the model is satisfactorily fit, determined by the index of Chi-square (CMIN/DF) = 1.79 and other indices contain CFI = 0.96, GFI = 0.92, TLI = 0.94, AGFI = 0.88, RMSEA = 0.058 with insignificant PCLOSE. Each model-fit indices' cut-off value was reasonably exceeded, which portrays a very good model fit (Sit, 2009).

The research findings indicate that all statistically significant for predicting enterprise performance by using a combination of green design in products, ethical leadership, building school, and hospital infrastructure, and environmental protection training. Table 8 demonstrates the testing results of hypotheses. In order to measure the effect (R2), the squared multiple correlations for variables (green design of products, environmental protection training, building school and hospital infrastructure, and enterprise performance) were also calculated as displayed in Figure 2.

DISCUSSION AND CONCLUSION

The findings of SEM revealed that there is a strong positive association between ethical leadership and CSR practices including green design of products (standardized regression estimate = 0.212, p < 0.000), environmental protection trainings (standardized regression estimate = 0.126, p < 0.000), building school hospital infrastructure (standardized and regression estimate = 0.165, p < 0.001). In a similar line, Zhu et al., [2013] conducted a studv on CSR practices and firm performance in the context of China and their results revealed that ethical leadership role is significantly important to adopt CSR practices. Tekin and Tozan, [2015] highlighted that ethical leadership acts a crucial part in the adoption of social practices inside and outside of the firm. In addition, ethical leadership balances the social. economic and environmental performance of the enterprise. Ethical leadership not only considers the legitimacy required to manage business objective but also assists as an effective way to adopt socially responsible practices such as green manufacturing, green design and and providing environmental packaging, friendly trainings to employees and customers. which enhance their knowledge and motivation to work more sustainably [Sama, Shoaf 2008].

Table 8. Results	s of Hypotheses	with Remarks

Hypothesis	SEM Regression Path	Standardized Coeffient	P-value	Remarks
H1a	EL → GDP	0.212	0.000	Supported
H1b	EL Env.P	0.126	0.000	Supported
H1c	EL 🔶 BSH	0.165	0.001	Supported
H2	GDP → FP	0.347	0.002	Supported
H3	Env.P	0.139	0.000	Supported
H4	BSH 🛶 FP	0.331	0.000	Supported

The results revealed that 'green design of products' is strongly and positively associated

with enterprise performance (standardized regression estimate = 0.347, p < 0.01). The

results are supported by previous studies including Khan and Dong [2017] and Khan et al. [2016]. They found that the ecological design of products has a positive impact on enterprise economic. operation and environmental performance. On the other hand, enterprises adopt the green design of products and other green practices in their business operations to improve financial and environmental performance, while green practices also build a positive image and reputation. Ecological design plays a vital role in controlling environmental degradations through recycling, remanufacturing, waste management, reduction in hazardous and toxic materials. Dekker et al. [2012] highlighted that unsustainable design and polluting activities of firms are mainly responsible for air and water pollution, which not only damaging natural beauty but also being the cause of several health problems such as weakening of lung function, birth defects, immune system defects, and asthma attacks.

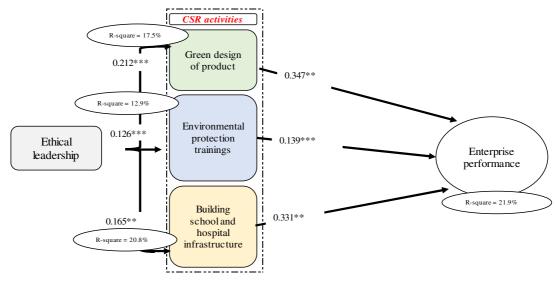


Fig. 2. Model with Coefficient values

The findings revealed that 'environmental protection training' are positively correlated with enterprise performance (standardized regression estimate = 0.139, p < 0.001). The key objective of providing environmental protection training is to enhance the knowledge of customers and employees and also motivate them to put efforts in CSR activities. Zhu et al. [2008] enterprises may face difficulty in adopting green practices including green product design if employees do not have sufficient knowledge of environmentalfriendly practices and their social advantages. In fact, there is a prevailing consensus that CSR practices can result directly in enterprise performance. The study provides support for the significant and positive association between corporate social responsibility and firms' performance. Environmental protection training significantly motivates employees and customers to be involved in CSR initiatives [Cook, Smith 1992]. However, many constraints can hinder to the enterprises shifting from polluting practices towards social and environmentally friendly practices such as organizational culture. To overwhelm these challenges, enterprises need to provide environmental protection training to their employees [Perron et al. 2006].

The results indicate that firms' participation in 'building school and hospital infrastructure' helps to improve enterprise performance (standardized regression estimate = 0.331 p 0.004) through positive image building and capturing of customers' sympathy. In Pakistan, a number of firms are directly involved in different CSR programs such as providing clean drinking water in rural areas, and each year many firms' CSR team visit to different villages for survey purposes, which are translated into building primary schools, *Khan S.A.R., Yu Z., Golpîra H., 2019. The Nexus between Corporate Social Responsibility and Corporate Performance: An Empirical Evidence. LogForum 15 (2), 291-303. <u>http://doi.org/10.17270/J.LOG.2019.328</u>*

medical camps/clinics and/or donating money to the local community union. CSR practices not only bring about community sustainable development but also improve employees and customer satisfaction. Zhu et al. [2013] conducted an empirical study in the context of China. Their findings revealed that

CSR activities significantly improve firm reputation and performance. In addition, the results confirmed that due to CSR activities, firms can easily build customers' trust and receive different benefits from governmental low import bodies such as duties. appreciations, and involvement in governmental CSR projects.

This study adopts structural equation modeling in order to estimate the association between CSR activities (green product design, building school and hospital infrastructure, and environmental protection training), and firm performance. The findings revealed that CSR practices significantly and strongly correlated with enterprise performance. In addition, the results of our research is also supported by previously published studies [Khan, Dong 2017, Khan et al. 2017, Hertel and Wiesent 2013, Murovec et al. 2012, Pereira-Moliner, 2012, Seggie 2007, Hartley, Choic 1996, Liu et al. 2012]. Further, this study explored that CSR practices not only help society and protect environmental sustainability but also build customers' trust and increase employees' job satisfaction.

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REFERENCES

Abdullah M I, Ashraf S, and Sarfraz M., 2017. The organizational identification perceptive of CSR on creative performance: The moderating role of creative self-efficacy, Sustainability, 9(11):2125, <u>http://doi.org/10.3390/su9112125</u> Bagozzi R.P., Yi Y., 1988. On the evaluation of structural equation model. Journal of Academy of Marketing Sciences, 16(1), 74-94.

http://doi.org/10.1007/BF02723327.

- Bentler P.M., Bonett D.G., 1980. Significance Tests and Goodness-of-Fit in Analysis of Covariance Structures, Psychological Bulletin, 88(3): 588-606, http://doi.org/10.1037/0033-2909.88.3.588.
- Bowen, H.R., 1953. Social Responsibilities of the Businessman, New York: Harper & Row.
- Brown M.E., Treviño L.K., Harrison D.A., 2005. Ethical leadership: A social learning theory perspective for construct development. Organizational Behavior and Human Decision Processes, 97: 117–134.
- Browne M.W., Cudeck R., 1993. Alternative ways of assessing model fit. Newbury Park, CA: Sage Publications.
- Büyüközkan G., Çifçi G., 2012. Evaluation of the green supply chain management practices: a fuzzy ANP approach. Prod Planning Control 23(6):405–418.
- Byrne B.M., 2010. Structural equation modeling with A<OS: Basic concepts, applications, and programming. New York: Routledge.
- Cook J., Smith B.J., 1992. Designing as an effective environmental training program. Journal of Environmental Regulation. 1992, 1: 53-62.
- Dekker, Bloemhof, Mallidis, 2012. Operations Research for Green Logistics - An Overview of Aspects, Issues, Contributions and Challenges, European Journal of Operational Research, 219(3): 671-679.
- Edhi Foundation <u>https://edhi.org/</u> [Accessed on March 3, 2018]
- Ehsan S., Kaleem A., 2012. An empirical investigation of the relationship between corporate social responsibility and financial performance (Evidence from manufacturing sector of Pakistan), Journal of Basic and Applied Scientific Research, 2(3)2909-2922.
- Elasrag H., 2015. Corporate social responsibility: An Islamic Perspective.

Munich Personal REPEC Archive. Online at <u>https://mpra.ub.uni-muenchen.de/67537/</u> MPRA Paper 67537, posted 30. October 2015 21:11 UTC.

- Engro Corporation <u>http://engrofoun</u> dation.com/ [Accessed: March 26, 2018].
- Fombrun C., Shanley M., 1990. What's in a name? Reputation building and corporate strategy. Academy of Management Journal, 33: 233–258.
- Gray D.E., 2004. Doing research in the real world. London, Sage Publications.
- Groves K.S., LaRocca M.A., 2011. An empirical study of leader ethical values, transformational and transactional leadership, and follower attitudes toward corporate social responsibility. Journal of Business Ethics, 103: 511–528.
- Hair J.F., Black W.C., Babin B.J., Anderson R.E., 2010. Multivariate data analysis. Prentice Hall.
- Hameed S.K., 2010. Corporate social responsibility (CSR) theory and practice in Pakistan. Master's Thesis, Swedish University of Agricultural Sciences, Uppsala, Sweden, 23 December 2010.
- Hartley J.L., Choic T.Y., 1996. Supplier development: customers as a catalyst for process change. Business Horizons 39(4):37–44.
- Hertel M., Wiesent J., 2013. Investments in information systems: a contribution to sustainability. Inf Syst Front 15(5):815– 829.
- Hossain M.T.B., Siwar C., 2009. A Comparative Analysis between Islamic Concept on Corporate Social Responsibility and Malaysia Mangers Opinion. Management of Environmental Quality: An International Journal, 20(3), 290-298.
- Khan S.A.R, Dong Q, Zhang Y., 2017. The impact of green supply chain on enterprise performance: In the perspective of China, Journal of Advanced Manufacturing Systems, 16, 2, 1-11.
- Khan, S.A.R., Qianli D., 2017. Impact of green supply chain management practices on firms' performance: an empirical study from the perspective of Pakistan.

Environmental Science and Pollution Research.

http://doi.org/10.1007/s11356-017-9172-5.

- Leech N.L., Barett K.C., Morgan G.A., 2005. SPSS for intermediate statistics: Use and interpretation. New Jersey, United States: Lawrence Erlbaum Associations, Inc.
- Lei P.W., Wu Q., 2007. Introduction to structural equation modeling: Issues and practical considerations. Educational Measurement: Issues and Practice, 26(3), 33-43. http://doi.org/10.1111/j.1745-

3992.2007.00099.x.

- Liu L, Tang M, Xue F., 2012. the impact of manufacturing firms' green supply chain management on competitive advantage. Adv Mater Res 472-475:3349–3354.
- Liu Y., Loi R., Lam L.W., 2013. Exemplification and supervisor-rated performance: The moderating role of ethical leadership. International Journal of Selection and Assessment, 21(2): 145–154.
- Manrique S., 2017. Analyzing the Effect of Corporate Environmental Performance on Corporate Financial Performance in Developed and Developing Countries. <u>https://doi.org/10.3390/su9111957</u>
- Mayer D.M., Aquino K., Greenbaum R.L., Kuenzi M., 2012. Who displays ethical leadership and why does it matter? An examination of antecedents and consequences of ethical leadership. Academy of Management Journal, 55: 151– 171.
- Molina L.M., Montes J.L., Ruiz-Moreno A., 2007. Relationship between quality management practices and knowledge transfer. Journal of Operations Management, 25(3), 682-701. <u>http://doi.org/10.1016/j.jom.2006.04.007</u>.
- Murovec N., Erker R.S., Prodan I., 2012. Determinants of environmental investments: testing the structural model. J Clean Prod 37:265–277.
- Pereira-Moliner J., Claver-Cortes E., Molina-Azorin J.F., Jose Tari J., 2012. Quality management. Environmental management and firm performance: direct and mediating

Khan S.A.R., Yu Z., Golpîra H., 2019. The Nexus between Corporate Social Responsibility and Corporate Performance: An Empirical Evidence. LogForum 15 (2), 291-303. <u>http://doi.org/10.17270/J.LOG.2019.328</u>

effects in the hotel industry, Journal of Cleaner Production 37:82–92.

- Perron, M., Co R.P., Duffy J.F., 2006. Improving environmental awareness training in business, 14. <u>http://doi.org/10.1016/j.jclepro.2005.07.006</u>
- Reynolds S.J., Ceranic T.L., 2007. The effects of moral judgment and moral identity on moral behavior: An empirical examination of the moral individual. Journal of Applied Psychology, 92: 1610–1624.
- Rodriguez-Fernandez M., 2016. Social responsibility and financial performance: The role of good corporate governance. Cuadernos de Economía Y Dirección de La Empresa, 19(2), 137–151. http://doi.org/10.1016/j.brq.2015.08.001
- Sama L.M., Shoaf V., 2008. Ethical leadership for the professions: Fostering a moral community. Journal of Business Ethics, 78: 39–46.
- Seggie S.H., Cavusgil E., Phelan S.E., 2007. Measurement of return on marketing investment: A conceptual framework and the future of marketing metrics. Industrial Marketing Management 36(6):834–841.
- Sheldon C., 1997. ISO 14001 and Beyond: Environmental Management Systems in the Real World. Greenleaf Publishing. 410.ISBN 9781874719014.
- Sit W.Y., Ooi K.B., Lin B., Chong A.Y.L., 2009. TQM and customer satisfaction in Malaysia's service sector. Industrial Management and Data Systems, 109(7), 957-975.

http://doi.org/10.1108/02635570910982300

Stanaland A.J.S., Lwin M.O., Murphy P.E., 2011. Consumer perceptions of the antecedents and consequences of corporate social responsibility. Journal of Business Ethics, 102: 47–55.

- Tekin E.K., Tozan H., 2015. Corporate social responsibility in Supply Chains (Chapter 1), published by Intech Publisher.
- Vitell S.J., Paolillo J.G.P., 2004. Cultural study of the antecedents of the perceived role of ethics and social responsibility. Business Ethics: A European Review, 13(2/3): 185– 200.
- Vitell S.J., Paolillo J.G.P., Thomas J.L., 2003. The perceived role of ethics and social responsibility: A study of marketing professionals. Business Ethics Quarterly, 13(1): 63–86.
- Yawar H.M., 2009. CSR Pakistan Evolution, Rise, and Impact of Socio-Economic Development; Capital Business (Pvt) Ltd.: Lahore, Pakistan.
- Zhu Y., Sun L., Leung A.S.M., 2013. Corporate social responsibility, firm reputation, and firm performance: The role of ethical leadership, Asia Pacific Journal of Management 31(4): 925-947, http://doi.org/10.1007/s10490-013-9369-1
- Zhu Q., Sarkis J., Cordeiro J.J., Lai K.-H., 2008. Firm-level correlates of emergent green supply chain management practices in the Chinese context. Omega, 36, 577– 591.
- Zinkin J., 2007. Islam and CSR: A study of the compatibility between the tenets of Islam, the UN Global Compact and the Development of Social, Human and Natural Capita. Corporate Social Responsibility and Environmental Management, 14, 206-218.
- Zinkin J., 2004. Getting CSR right. Paper at the conference CSR – Creating Competitive Advantage, Kuala Lumpur, 2004.

ZWIĄZEK POMIĘDZY ODPOWIEDZIALNOŚCIĄ SPOŁECZNĄ FIRMY A JEGO SPOSOBEM DZIAŁANIA

STRESZCZENIE. **Wstęp:** W pracy zaprezentowano analizę zależności pomiędzy praktykami CSR (społeczna odpowiedzialność przedsiębiorstwa) a sposobem działania przedsiębiorstwa. Zostały zebrane dane z 248 przedsiębiorstw zlokalizowanych w różnych przemysłowych obszarach Karachi, głównie w obszarze przemysłowym S.I.T.E, obszarze

przemysłowym Federal-B, obszarze przemysłowym West Wharf, obszarze przetwórstwa Karachi Export, obszarze przemysłowym Bin Qasim oraz obszarze przemysłowym Korangi.

Metody: W pracy zastosowano SEM (modelowanie strukturalne) dla testowania hipotez za pomocą programu AMOS. Stosowanie praktyk CSR było oceniane poprzez "zielone zaprojektowanie produktu", "przywództwo etyczne", "budowanie infrastruktury szpitalnej i szkolnej" oraz "kształcenie w obszarze ochrony środowiska".

Wyniki: Otrzymane wyniki wykazały, że przywództwo etyczne jest silnie pozytywnie związane z praktykami CSR, co potwierdza, że etyczne przywództwo posiada silny potencjał wdrożenia praktyk CSR w ramach firmy oraz w jej otoczeniu. Wyniki wskazują również, że praktyki CSR wzmacniają działanie przedsiębiorstwa.

Wnioski: Zaprezentowane w pracy badania wskazują na zależność pomiędzy praktykami CSR oraz sposobem działania przedsiębiorstwa. Dodatkowo, są one pomocą dla zarządzających wyższego szczebla dla zrozumienia istotności praktyk CSR.

Słowa kluczowe: społeczna odpowiedzialność przedsiębiorstwa, zielone zaprojektowanie produktu, przywództwo etyczne, sposób działania przedsiębiorstwa

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