Journal for Business Education and Management
ISSN (Print): 2790-7848 ISSN (Online): 2790-7856
Volume 1, Issue 1, Page 1-27, June 30, 2021

PRACTICES OF GSCM FOR ENHANCING THE FINANCIAL PERFORMANCE OF THE ORGANIZATION

Muhammad Asif
Management Sciences Department
D.H.A. Suffa University
Karachi Pakistán

Abstract

The research aims to determine how Green Supply Chain Management (G.S.C.M.) practices affect the financial performance of the organization. This study was carried out to analyze the influence of financial performance when implementing green supply chain practices. A deductive approach was adopted for this research, which means hypotheses were developed based on relevant literature, which was analyzed. Then, a questionnaire was developed to acquire data from respondents. This research is Quantitative. Statistical tools such as Correlation and regression analysis are being used to study the data. The target population is undefined, so a convenient sampling strategy is used for this research. Two hundred fifty questionnaires were sent to the respondents, out of which two were found patterned and that were deleted, so 114 responses are to be considered, which means a response rate of 46%. The result analysis shows that Investment Recovery and Eco-Design have an optimistic influence on the financial performance of the firm and are the key factors in the execution of G.S.C.M. practices; their impact is significant, with p values of 0.000 and 0.00 individually. Meanwhile, cooperation with the customer and Green Information System has no proper influence on financial performance. The outcomes of this research reveal that acceptance of the practices of a green supply chain has a significant effect on the financial performance of the firm. However, the implementation of green supply chain practices relies on factors like investment recovery and eco-design, which are important to increase the financial performance of the organization. Cooperation with customers and Green Information systems are not considered crucial factors in increasing financial performance. This research will be useful for organizations to decrease waste, save energy, minimize emissions, protect natural resources, reduce production costs, and increase their financial performance through the execution of G.S.C.M. practices. Academics may also benefit from the findings of this study.

Keywords: Practices of (G.S.C.M), Financial Performance, Cooperate with Customers, Green Info System, Investment Recovery and Eco-Friendly Design

Introduction

Green Supply Chain Management (G.S.C.M.) is defined by (Srivastava, 2017) as the practice of the improved performance of the setting along with the supply chain process, including designing of the product, relationships with customers and operations management. Organizations must fulfill with environment-friendly business practices in their organization. (Chuang, 2018) Globalization, in terms of localization, increases the burden on companies to improve their environmental performance. (Sarkis, 2005). Nowadays, the management of the green supply chain of origination faces many challenges. Different consumers, suppliers, legal entities, and

This work is licensed under a Creative Commons Attribution 4.0 International License.

Governments demand that organizations implement environmentally friendly practices because their production of goods negatively impacts the environment. (Beatriz, Jabbour, Govindan, Kanna, & Arantes, 2014) Organizations make reactive strategies to get an advantageous position in the market. Adopting new policies and management approaches to make sustainable development strategies and adopt them in their practices. (Oliveira, Espindola, Silva, Silva, & Rocha, 2018).

A number of G.S.C.M. literature have inspected whether the acceptance of strategies for an environment in (S.C.M) increases the performance of the organization. Many studies, including (Wua et al., 2012), (Tan, Zailani, Tan, & Shaharudin, 2016), (Choi & Hwang, 2015) show that the various factors of G.S.C.M. (eco-design, green purchasing, investment recovery, green production) have a significantly positive effect and help in improving the fG.G.S.G.S.G.G.G.G.G.S.C.M., itncial performance and overall environmental performance. According to (Choi & Hwang, 2015), G.S.C.M. allows every organization to get financial benefits and market share goals to lessen their environmental costs, and each organization should follow friendly environmental operations.

The optimistic connotation between the practices of G.S.C.M. and financial performance is strong when the organization integrates varied factors of the green supply chain (Choi & Hwang, 2015). Management of a Green Supply Chain is especially important. It has received considerable attention. A firm can benefit by applying Practices of (G.S.C) Management because this practice can drive revenue for a firm. However, most of the (G.S.C.) management-related studies have yet to explore which capabilities a firm needs to adopt for the implementation of successful practices of G.S.C.M. need to implement to achieve financial and environmental success (Choi & Hwang, 2015).

Previous studies tell us that the performance of the environment has an insignificant connection with firm performance. (Rockness, 1986) Though, the modern view recommended that environmental performance of the organization is eliminates waste and minimize use of energy and allowing firm to save their costs and increase his financial performance. (Sanchez Medina, 2015). Among current study for protection of environmental, practice of (G.S.C.M) is important to adoption by organization to obey environmental rules, and norms. (Zhu- Q., 2012). Our country, Pakistan, practices (G.S.C) management as a satisfactory solution for following environmental rules and regulations. G.S.C.M. is recognized as a justifiable S.C.M. and environmental S.C.M. □ that integrates green buying, green production, reverse logistics, a se coordination, green system of distribution, green marketing, and green systems of information (Chien, 2007). The study added literature in different steps. This study implemented G.S.C.M. practices, including organizational activities like green manufacturing (Liu, 2010). Cooperate with consumers, green buying, Eco-friendly design □, and green systems of information, helpingation (Esty, 2009) eloping the best understanding of the role of every G.S.C.M. practice in relation to financial and environmental performance.

Few current studies have found the relationship between (G.S.C.M) and financial performance or the performance of the environment has positive linkages (Chuang, 2018). (Saeed, 2018) This researcher said that the performance of the environment is increasing, as the operational activity of the organization, and explains

ISSN (Print): 2790-7848 ISSN (Online): 2790-7856
Volume 1, Issue 1, Page 1-27, June 30, 2021

the missing link between G.S.C.M. practices and the financial performance of the firm. G.S.C.M. has mostly focused on large, medium, or small businesses due to the pressure of institutions and environmental rules and regulations (Dias A, 2019). (G.S.C) Management does not only improve the performance of the firm's environment but also improves the firm's financial performance. (Longoni A, 2018) The relationship between vendor and buyer to purchase/sell green goods is called G.S.C.M. (Suryanto, 2018). This relationship has been accepted, executed, and practiced by businesses all over the world in the past decade. (Ananda, 2018). It has been demonstrated by previous readings that besides minimizing the environmental impact, G.S.C.M. practices progress economic performance and improve the operational and organizational performance of a production company. (Green Jr, 2012).

In the last 04 decades, supply chain management (S.C.M.) has become defenseless and wants more strategic planning and organization in combination with end-to-end business supply chain procedures to fulfill the needs of end consumers of the supply chain. (Green KW Jr, 2006) And (Ho DCK, 2002). Business processes should coordinate and integrated with different departments like the coordination department, marketing department, purchasing department, and manufacturing department (Green Kenneth W. Jr, 2012). Strategic planning is required to be aligned and improve productivity, quality, focus on consumers, environmental sustainability programs and green practices. (Green Jr, 2012; Zelbst P, 2010) Organizations should concentrate on practices of (G.S.C) management and implement these practices in their industry operation to minimize the customer's and government's compression and get improvement in ment in the performance such as green marketing, eco-friendly tagging, reverse logistics, and green activity of advertising (Smith, 2010). The pressure from consumers inspires industries to adopt practices of (G.S.C) in their industry operations to increase the performance of the company. (Kagan RA, 2003) When an organization invests in purchasing cleaning technologies, it not only improves the performance of the environment of the industry but also takes advantage of competition and increases the industrial financial performance (Rao P. a., 2005). Different researchers found that follow of practices of (G.S.C) management it gives good impact on industrial financial performance and environmental performance. (Zhang, 2016). Stakeholder theory suggests that stakeholders are those groups of persons who can affect company performance or company actions directly or indirectly. According to this theory, firms produce externalities, so stakeholder pressure is created on industries to overcome the harmful effects. The pressure from the stakeholders motivates the management of the organization to implement green practices to save the environment (Zhang, 2016).

For a number of decades, customers have been aware of the environmental issues, so they pressure the management of the organization to overcome the effects of dangerous chemicals and follow the practices of (G.S.C) in their (S.C) process. (KumarA, 2014). On the other hand, environmental practices have reduced company profitability because the adoption of green practices requires big investments in technological equipment, more employee training, and different processes needed to implement practices (G.S.C) in the industry. (King A, 2004). (SB, 2001). Suggests that environmental sustainability programs in organizations and their strategic planning are not efficient and effective, and strategic planning is not able to overcome uncertainties, but it creates competitive advantages. Implementation of practices of the green supply

Chain and eco-friendly design approach can save energy and water during the manufacturing process and the organization's effective use of byproducts. (Pappis CP, 2006).

According to (Zhu et al. et. 2005), in China, there are many firms in the textile industry, chemical industry, electrical industry, petroleum industry and auto power generation that follow eco-friendly designs to save energy and minimize the use of raw materials. The product can be recycled and reproduced. Firms should follow the practice of investment recovery. In this practice, firms sell their extra inventory, extra surplus material, scrap and extra capital equipment for profit and its effect on the company's financial position.

Scope

The scope of the study is in the Cement manufacturing sector of Karachi, Pakistan, and the statistics will be collected from the Cement industry of Karachi, Pakistan. As discussed in the problem statement, no research has been found on the impact of cooperation with the customer, green information systems, investment recovery, and eco-design on an organization's financial performance. This study will help the firms involved in manufacturing, to which extent cooperation with the customer, green information systems, investment recovery, and eco-design help organizations attain financial success and enhance environmental performance.

Research Gap

No research has been done on the impact of GSCM practices and enhancement of the financial performance of the cement industry in Karachi, Pakistan. This paper will be helpful to the managers and people who are involved in supply chains. Follow these green supply chain practices to reduce waste, reduce emissions, reduce production costs, and increase the firm's profitability.

Problem Statement

There has been a lot of research work done in different countries for practices of (G.S.C) management and its impact on an organization's financial performance; however, the researcher has not found any research work done in the cement industry of Pakistan on the impact of practices of (G.S.C) Management such as cooperating with the consumer, Green system of information, Investment Recovery and Eco-design on the financial or economic performance of the industry. As earlier research has described the importance of GSCM practices on the organization's performance, it is also vital to study the influence of GSCM practices on firms operating in Pakistan. So, this study will aid the industry operating in Pakistan to achieve competitiveness and improvement in their profitability in an environmentally friendly way by implementing the practices of the (G.S.C) management in their industry.

ISSN (Print): 2790-7848 ISSN (Online): 2790-7856
Volume 1, Issue 1, Page 1-27, June 30, 2021

Research Questions

The drive of this study is to investigate the association between GSCM practices and a firm increase's financial and environmental performance by answering the below-mentioned questions of research:

1. What is the influence of collaboration with the customer on the financial performance of a firm?

2. What is the impression of green information systems on the financial performance of a firm?

3. What is the impact of investment recovery on the financial performance of a firm?

4. Is there any influence of Eco-design on the financial performance of a firm?

Research Objectives

The goal of this study is.

- To scrutinize the effect of cooperation with the customer on the financial performance of a

- Firms.

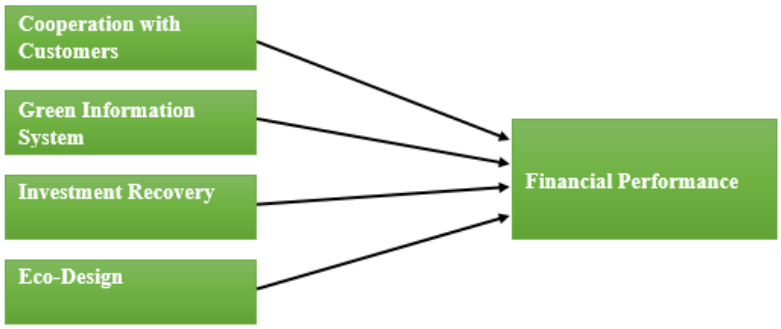
- To inspect the impression of green information systems on the financial performance of a firm.

- To examine the effect of investment recovery on the financial performance of a firm.

- To discover the impression of Eco-design on the financial performance of a firm.

Theoretical framework

Based on the discussion above and considering the variables that have been discussed before, the following theoretical framework has been developed for this study.



Research Model

Significance of the Study

The research is beneficial for the organization to adopt and implement the Practices of GSCM to increase the firm's financial performance. When an organization implements green supply chain practices, it reduces waste, reduces emissions, lessens the use of natural resources, and minimizes manufacturing costs. It earns maximum profit and gets sustainability in the environment.

Limitation

This report has provided excellent value in the shape of the results that the study has provided, but some restrictions must be considered. First, the basis of the study is those factors that have an impression on the financial performance of the firm. This study is limited to the cement industry in Karachi, Pakistan. The main factors for the limitation of this research include the period and the resources, as it is a small period, only four months. It is extremely difficult to collect data from every region of Pakistan. Additionally, the research is limited to respondents who are a part of cement manufacturing and supply chain of the cement industry of Karachi, Pakistan and are willing to participate in the cause of this study out of those respondents who were selected for this study, as it is almost practically impossible to involve every person linked with the supply chain in cement industry in Karachi, Pakistan.

Literature Review

The concept of an environmentally friendly supply chain is based upon (the 3PL) theory; this theory comprises economic performance, environmental performance, and social performance. (Jääskeläinen, 2019). In the past, firms give importance to their consumers based on the supply chain. Supply chain operations directly and indirectly affect the environment. The direct effect occurs when an organization practices materials, which is massive waste during the processing, disposal, and transportation of materials. Cement manufacturing uses several chemicals when processing products, which increases the quantity of water and increases air pollution. Indirectly affects when it occurs, the operations and actions of harmful, and it is answerable for upstream suppliers. The operation of GSCM practices enhances the ability of the organization to solve sustainable problems with Direct or

ISSN (Print): 2790-7848 ISSN (Online): 2790-7856
Volume 1, Issue 1, Page 1-27, June 30, 2021

Indirect effects. Examples of this are eco-design and green manufacturing, which increase financial performance and increase the environment by reducing production processes, minimizing costs, and reducing wastage. Green buying/purchasing is an outsourcing process that creates pressure on suppliers to supply environmentally friendly parts and goods.

It is not essential to implement the practices of GSCM to make good competition and increase financial performance. Many researchers say that acceptance of green design products and practices of the (G.S.C) management may lead to minimizing wastage. It also helps to reduce the use of products, water, and energy and get competitive advantages and productivity when implementing the practices of the GSCM and modern technologies. (Gupta, 2015). Now a day there are, we focus on those practices that are friendly to the environment and have a positive impact on the economic performance of the organization. (Linton J, 2007) Said that sustainability has moved from the company to Supply Chain management. (Seuring S., 2004) Big G.S.C.M is the managerial combination of material and data circulated throughout the (S.C) Management. It fulfills the consumer demand, and consumers want goods and services that are environmentally friendly. During the production process, the company must follow the practices of the green supply chain. Seuring (2004) Said that "(S.C) management of Environment" is the combination of information and material circulated throughout the (S.C) management to fulfill the consumer's need for green services and goods manufactured by the green process of manufacturing.

Practices of GSCM to increase sustainability in the environment, so GSCM focuses on achieving this purpose. Suppliers and customers do manufacturing work together. Acceptance of the practices of GSCM results in improved environmental performance as restrained by a reduction in air releases, wastage, and the use of poisonous resources. Company profit and market share will increase if the company improves its environmental sustainability practices. To increase the organization's performance, it is only the responsibility of the production manager to properly check the production process to the organization's assigned tasks (Green et al., 2008).

Practices of GSCM and Financial Performance

Adoption of practices of a Green Supply Chain improves the environmental and financial performance of the organization (Lee et al., 2012). By adopting GSCM practices effectively, organization decreases their wastage. This process allows the organization to produce the final product at a very minimal cost (Yang & Zhang, 2016). (Rao P. a., 2005) Showed a link between practices of (G.S.C) management and financial performance. They also found that the practices of GSCM resulted in competitiveness and enhanced their financial performance.

Suppose a company increases its financial performance and saves its costs. It should have the ability to make goods and services environmentally friendly to the satisfaction of customers who need green products and services. The implications of environmentally friendly practices should improve the overall financial performance of the organization. It is still an open question whether GSCM practices can improve financial performance (Seuring S., 2004). Some have shown that environmental management and GSCM have a constructive association with an organization's financial performance (Rao & Holt, 2005). Green purchasing minimizes buying costs,

eco-design, and green manufacturing, minimizes wastage of the company and needs minimum energy and customer cooperation. A green Information System assists organizations in reducing accidents. So, the organization is safe from penalties. Many researchers found that the performance of the environment increases the financial performance of the industry (Lee, 2012).

Variables of the Study

This study comprises two types of variables: independent variables and dependent variables.

Independent Variables

If the development of a variable is not dependent on any other variable of the study, then that variable is termed an independent variable. The following are four independent variables of this research:

- Cooperate with the Consumers.
- Green System of Information
- Investment Recovery.
- Eco-friendly Design.

Dependent Variables

Suppose the development of a variable is dependent on any other variable of the study. In that case, that variable is called a dependent variable, which means fluctuation in any of the independent variables will cause a change in the development of dependent variables. The only dependent variable of this research is the Financial Performance of the Firm.

Hypotheses

Financial Performance of Organization and Cooperation with the Customers

Consumers play an especially important part, and they are important participants in the Supply Chain. Consumers force firms to decrease hazards and harmful effects in their supply chain practices (Freeman, 2010). Consumers affect a firm's practices. All customers play a positive role, and they pressure the organization to implement GSCM practices (Harms, 2013). Customer relationships enhance the F-Performance of the industry (Inman & Green, 2005). (Green K. a., 2005) Moreover, OBJ said that better association with customers and suppliers increases the manufacturing company's environmental performance. (Vaccaro, 2010)

Suggested that company transparency about the sustainability of eco-friendly practices implemented by firms it may encourage consumers to play a role in environment-friendly initiatives. Production Company cannot judge the needs of their customers as eco-friendly until the customer is participation in organization feedback, and it is especially useful for the organization. (Vachon, 2008). So, the hypotheses are that:

H_1. Customer cooperation has a positive influence on the firm's financial performance.

ISSN (Print): 2790-7848 ISSN (Online): 2790-7856
Volume 1, Issue 1, Page 1-27, June 30, 2021

Financial Performance of the Firms and Green Information System

A green information system is a proper use of the information system that may lead to environment-friendly processes and sustainable development in the organization. It is a proper utilization of the organization's activities concerning green innovation and green supply chain practices (Corbett, 2013). The adoption of green information assists the organization in sharing information about environmentally friendly steps throughout the whole Supply Chain in terms of coordination (Chandra, 2007). Green information systems provide complete information, reporting and coordination in many supply chain steps (Khan, 2017).

Cote (2004) found that in supply chain management, 459 firms have adopted GIS to increase environmental performance in terms of efficiency, cost reduction, and product quality. Furthermore, organizations get operational and strategic advantages when they utilize green technologies. (Linn, 2013). It is exceedingly difficult to compare a firm's financial performance and environmental performance if the obtained data on the environment is untrustworthy (Nunnally, 1978). The current studies focus on the green information system in production companies, which is especially important for company operations. (Dao, 2011). If an organization utilizes the green information system, it gets a modest advantage and effective performance that is not easy for other competitive companies to use (Klasen, 1999). The implementation of a Green Information System throughout the supply chain can improve the efficiency of firms and increase operational and financial performance through the proper distribution of resources (Daugherity, 2005). Additionally, organizations successfully implement the Green Information System, which enhances their sustainable development competencies (Dao, 2011). So, Green Information Systems plays a good role in all activities of the organization's performance (Yaang, 2018). We find that the effective adoption of a Green Information System increases the organization's financial and environmental performance of the firm. So, the hypothesis is that:

H_2. Green Information System has a positive effect on the financial performance of the organization.

Firms Financial Performance and Investment Recovery

Investment recovery can be defined as the recovery of the maximized worth of assets that a company no longer requires, according to (Zhu Q. G., 2010), investment recovery process that include the sale of additional inventories, scrap and used materials, and surplus capital equipment. Inv Recovery determines to have the higher value returned from outdated goods, life-ended products, and extra stuff (Ayress et al., 1998). Inv recovery assists an organization in reducing its costs and increasing value recovery. Investment recovery is applied successfully in different manufacturing industries like automobiles and computers (White at el. 2003). The basic emphasis on the return of recyclable goods and materials is onward to the supply chain process. So, investment recovery increases the financial performance of the organization. Therefore, we develop hypotheses that:

H_3. Investment recovery has positive effects on the organization's financial performance.

Firms Financial Performance and Eco-Friendly Design

The meaning of eco-design is to make product design with less energy, and it is easy to recover and recyclable the product parts and not use dangerous processes in the production phase (Zhu Q. S.-H., 2008). Similarly, (Grønhaug, 1988) said that eco-design has positive consequences on the performance of the organization and plays a key role in attaining competitive benefits in the market. Many firms use eco-design for eco-friendly products; it gives the products a competitive advantage and makes them different from other competitors (Renhardt, 1998). Eco design depends on the management of suppliers, the management of consumers and the management of the internal of the company. (Linn, 2013) Firms may reduce 80 percent of harmful consequences in an environment when they use green design practices in their organization (Büyüközkan, 2012). Zhu (2017) said that green design practices overcome the dangerous impact on the environment and enhance the sustainability of the industry. Firms should reduce the use of harmful raw materials and use minimum resources in the production process. Green design practices assist organizations in the reuse of materials, remanufacturing process, and recycling goods. Eco-design has optimistic consequences for the performance of the organization, and similarly, consumers want to buy environmentally friendly products to save costs and ensure the safety of the environment (Linn, 2013). So, we find that eco-design products have an optimistic result on a firm's financial performance (Linn, 2013). Hence, we make hypotheses that:

H_4. Eco-design has positive effects on the firm's financial performance.

Methodology

Research Design

Research Strategy

The research design adopted for this project is Explanatory research design. Quantitative Research is used to check the problem of making numerical information way or information that can be altered into practical visions.

Quantifiable information is used in quantitative research to plan and reveal designs and certainties in research. Quantitative information strategies are significantly developing in a better manner than qualitative information methods (De Franzo, 2011)."

Explanatory research design is adopted when a researcher needs to connect ideas to comprehend cause and effect. In other words, it is a research design in which the investigator aims to tell a story or prove his findings or results with the help of numbers (Knaflic, 2014).

Sample Design

Researchers used non-probability sampling for this study because of a few limitations such as time-bound, commuting problems, people being reluctant to meet/respond due to COVID-19 and lack of personal relations and references in industrial and manufacturing sectors. Therefore, he could not collect data on the entire

ISSN (Print): 2790-7848 ISSN (Online): 2790-7856
Volume 1, Issue 1, Page 1-27, June 30, 2021

population and the actual size of the population. He has used convenience sampling because it is easy to use. The researcher has collected data from various cement manufacturing firms and firms operating supply chain practices.

Instrument Selection

A survey has been intended conferring to the Five Points Likert Scale. It will measure the defendants' reactions on a scale of 1 (strongly disagree) to 5 (strongly agree). The survey involves five variables: cooperation with the customer, green information system, eco-design, investment recovery and financial performance of a firm. All variables will be measured using the questionnaire used in the base paper.

Data Collection Technique

The researcher designed a questionnaire in Google Forms and sent it to 250 people who are working in various cement manufacturing firms in Karachi, Pakistan and received only 116 responses. Two responses were found to be pattered, which were deleted, so the total responses were 114. The response rate through Google Forms was 46%.

Target Population

This study analyzes the impact of factors influencing the practices of GSCM (support with the customer, green information system, eco-design, and investment recovery) on the financial performance of the organization. The target population includes respondents who are part of the cement manufacturing industry of Karachi, Pakistan, as it is impossible to involve every individual working in the cement manufacturing industry of Karachi, Pakistan. The target population of this research is individuals who are involved in the cement manufacturing industry located in Karachi, Pakistan.

Sampling method

A non-probability sampling method, which is convenience sampling, was adopted for collecting the statistics.

Validity and Reliability Tests

The researcher checked the validity and reliability of the scale for internal consistency through Cronbach's Alpha. The value of Cronbach's alpha should be more than 0.7 to make it acceptable, but if it is more than 0.9, it is excellent (Kline, 2000). The values of Cronbach's alpha in the results prove that the data is dependable and acceptable. To check the validity, the researcher has checked the factor analysis with the help of outer loadings, and it also proves that the items of all five variables are valid.

Data Analysis Tools and Techniques

The research validated the above hypothesis based on the modeling of the structural equation using the Partial Least Squares (PLS) technique using version 3.0 of Smart PLS. The partial least squares method is a recognized technique for finding

the path coefficients of structural models. It is progressively used in marketing studies because of its ability to model latent structures under nonnormal conditions in small to medium samples (Hair, Hult, Ringle and Sarstedt, 2013). The researcher completed the partial least squares algorithm that defines the significant path coefficients, weight, and loading and then applied a bootstrap method to define the significance level of the hypothesis. In the process recommended by Anderson and Gerbing (1988), the researcher predicted the goodness of fit of the measurement model and validity, formerly evaluating the structural relationship defined in the structural model.

Software Used

Smart PLS will be used for data analysis. The reason for using Smart PLS is that it is quite easy to use and to obtain the results. It gives all the required results within seconds and in just a few clicks.

Findings and Results

Validity and Reliability

The researcher uses Smart PLS version 3.0, and he has inspected the Composite Reliability, Average Variance Extracted (A.V.E), Convergent Validity, Outer Loadings and the (D.A) Discriminant Validity. Initially, the researcher verified the measurement model for convergent validity by measuring the Factor Loadings, Average Variance Extracted (A.V.E) and Composite Reliability (C.R).

The suggested value for Factor Loading, Composite Reliability and (A.V.E) Average Variance Extracted is greater than 0.6 (Chin et al., 2008). Table 1 indicates that (A.V.E) Average Variance Extracted and (C.R) Composite Reliability of five variables (Financial Performance, Cooperation with consumers, Green system of Information, Inv Rec and Eco-friendly design) and Factor Loading of all the items is more than 0.6 except CWC-01 that is 0.476, CWC-04 that is 0.545, GIS-01, that is 0.578, GIS-02 that is 0.333, IR-03 that is 0.541, IR-04 that is 0.526 that means the statistics are reliable and valid. Composite Reliability (CR) and Cronbach's Alpha display the degree to which the construct indicators identify the latent construct, which should be more than 0.7 (Hair et al., 2013). The Average Variance Extracted (AVE), which represents the general variance in the items or indicators accounted by the latent construct, is suggested to be more than 0.5 (Hair et al., 2013).

Table 1 displays the Cronbach's Alpha value of all five variables, which is greater than 0.7. The Cronbach's alpha value of the first variable, Financial Performance, is 0.768, and the (A.V.E) value of the first variable is 0.593. Likewise, Cronbach's Alpha value is 0.720 and (A.V.E) is 0.508 for the second variable, Cooperation with the consumers, The third variable Green system of Information, has a 0.782 value of Cronbach's Alpha and 0.503 value of (A.V.E), the fourth variable has 0.704 value of Cronbach's Alpha and 0.520 value of (A.V.E) of Inv Rec and last variable five has the Cronbach's Alpha value is 0.874 and (A.V.E) value is 0.799 of Eco-Design.

ISSN (Print): 2790-7848 ISSN (Online): 2790-7856
Volume 1, Issue 1, Page 1-27, June 30, 2021

Table 1: Reliability & Validity for Constructs

Constructs	Item	Loading	AVE	CR
Financial Performance (Cronbach's Alpha = 0.768)	FP-01	0.815	0.593	0.853
	FP-02	0.696		
	PF-03	0.852		
	PF-04	0.706		
Cooperation with the Consumer (Cronbach alpha = 0.720)	CWC-01	0.477	0.508	0.772
	CWC-02	0.753		
	CWC-03	0.895		
	CWC-04	0.545		
Green System of Information (Cronbach alpha = 0.782)	GIS-01	0.578	0.503	0.757
	GIS-02	0.333		
	GIS-03	0.839		
	GIS-04	0.839		
Investment Recovery (Cronbach's Alpha = 0.704)	IR1 IR2 IR3 IR4	0.856 0.881 0.541 0.526	0.520	0.804
Eco-Design (Cronbach's Alpha = 0.874)	ED-01 ED-02 ED-03	0.886 0.879 0.916	0.799	0.923

Discriminant Validity

The measurement model shows a suitable convergent validity and discriminant validity.

Table 2: Discriminant Validity

	C.W.C	E-Design	Financial Performance (F.P)	Green System of Information	Inv. Rec
Cooperate With the Consumers	0.688				
Eco-Friendly Design	0.002	0.894			
F. P	0.215	0.390	0.770		
Green System of Information	0.200	0.133	0.222	0.681	
Inv. Rec	-0.04	0.246	0.324	0.104	0.721

Structural Model

The researcher has used Smart PLS version 3.0 for this study and evaluated the structural model and hypothesis. The scholar has directed the bootstrapping process with 1500 repetitions to check the statistical importance of the weights of sub-constructs and path coefficients. (S.R.M.R) is the variance between the detected correlation and the implicit correlation matrix of the model. Thus, it permits estimating the average value of the change among the experiential and expected correlations as an absolute measure of the fit criterion (model). Hu and Bentler (1998) suggested that a standardized Root Mean Square Residual (S.R.M.R) value less than 0.10 or 0.08 (in a more conservative version) reflects a good fit. Henseler et al. (2014) present SRMR as a PLS-SEM goodness-of-fit measure that can be used to prevent model description errors.

The researcher evaluated the hypothesized associations in the structural model after checking the measurement model and goodness of fit. Figure 1 displays the results of the analysis. The corrected R^2 in Figure 1 shows the descriptive power of the predictor variable on the construct. Cooperate with the Consumer, Green System of Information, Inv. Recovery & E-design defines a 27.0% impact on financial performance.

Chin et al. (2008) categorizes the dependent constructs as high, average, or low, grounded on the R^2 values of 0.67, 0.33, or 0.19, correspondingly. Therefore, the results of the financial performance, on cooperating with the consumers, green system of information, and inv. Rec and Eco-friendly Design show that Financial Performance has a mediocre impact on them. Figure 4.1 shows that Cooperate with the Consumers, Green System of Information, Inv. Rec, and Eco-friendly Design have a total impact on the F-Performance of 20.1% (0.201), 11.5% (0.115), 24.3% (0.243) and 31.5% (0.315), respectively.

So, these results show that Inv. Rec and Eco-Friendly Design have an important influence on Financial Performance and Cooperation with Consumers, and a Green System of Information has a minimal impact on Financial Performance.

ISSN (Print): 2790-7848 ISSN (Online): 2790-7856
Volume 1, Issue 1, Page 1-27, June 30, 2021

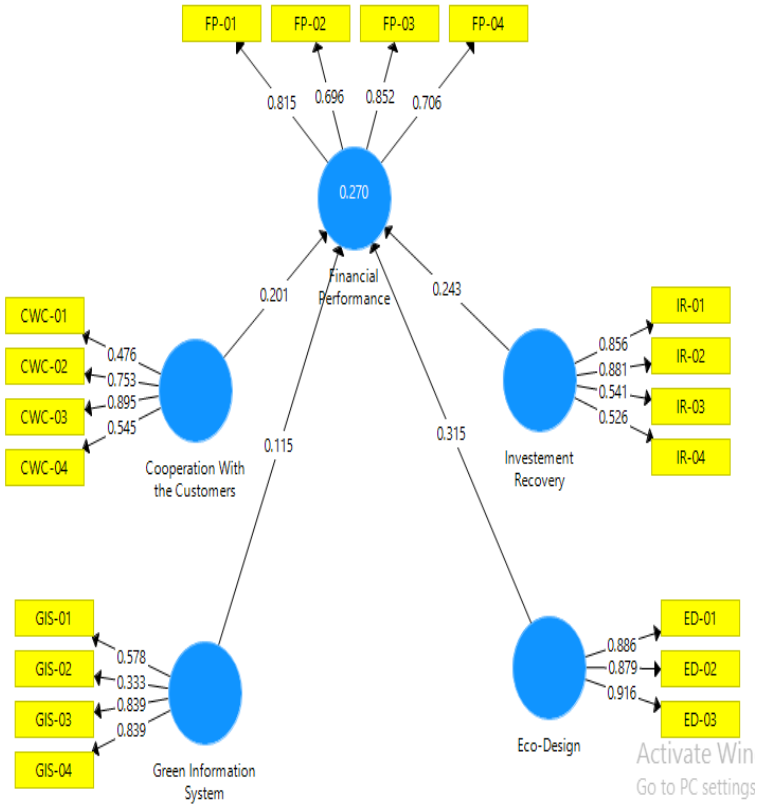


Figure 1: Structural Model Results

Table 3 indicates the result of regression on the Financial Performance. Chin et al. (2008) made a category for the dependent variables as responsible, large, and low, centered on the values of R-Square (R2), which is 0.67 or greater value for a strong impact, 0.33 or greater for moderate impact and 0.19 for weak impact. The value of R-Square (R^2) of Financial Performance is 0.270, and the adjusted R^2 is 0.241. This shows that Financial Performance is moderately affected by the Independent Variables.

Table 3: Model Summary Regression Analysis

Endogenous Constructs	R^2	Adjusted R^2
Financial Performance	0.270	0.241

Table 4 shows the findings of the structural model and hypothesis test results. Four complete hypotheses were evaluated in the research paper. The four positive hypotheses (H_1, H_2, H_3 and H_4) are evaluated through the bootstrapping and PLS factorial algorithm and consequences have been displayed in the table below. Among these four hypotheses, H1 and H2 have been rejected because of the negligible Beta value but, most importantly, a higher value of P than 0.01, that is, 0.071 and 0.473 for both H_1 and H_2 simultaneously. H3 and H4 have been accepted, which indicates that Investment Recovery and eco-design have a positive impact on Financial Performance. The H_3 and H_4 (Investment et al.) have P-values of 0.007 and 0.002, respectively, and

as their Beta (B) value and T-value are shown in the table, they have a positive impact, and the P value is less than 0.01 0.000 for both H_3 and H_4. *P<0.01, **P>0.01 {P (H_1) =0.071 and P (H_2) =0.473}, Not Significant

Table 4: Testing of Hypotheses

	Hypothesis	B (Beta)	T-Value	P-Value	Result
Cooperation With the Customers	H_1	0.201	1.810	0.071	Rejected
Green Information	H_2	0.115	0.719	0.473	Rejected
Investment Recovery	H_3	0.243	2.730	0.007	Accepted
Eco-Design	H_4	0.315	3.164	0.002	Accepted

Discussion

Literature has highlighted the importance of practices of (G.S.C) management. The adoption of practices of (G.S.C) management is especially important for the success of business and creates stability. The research illustrates that in cases where management implemented these practices and overcame environmental issues, companies were successful. The appropriate level of initiative from the top management and adequate leadership decisions are significant reasons for the implementation of GSCM practices.

Organizations try to create positive relationships with consumers, aiming at green purchasing and adopting green information systems to increase the organization's financial and environmental performance. Gholami et al. (2013) said that the performance of the environment of the firm enhances the execution of a green system of information, and from the point of view of Chien and Shih (2007), a green information system increases the firm's financial performance. Choi and Hwang (2015) said that eco-design is a vital element of a firm's financial and environmental performance.

It is a fact that with the proper implementation of GSCM practices, the performance of the organization is improved. Researcher such as Longoni and Cagliano (2018) found that if the upper management of the firm implements the practices of (G.S.C) management, organizations increase their environmental position as well as financial position. Eco-friendly design enhances the environmental performance of the organization by recycling and remanufacturing the product after its complete lifecycle. So, Eco-design increases the financial performance of the firm overall.

According to the analysis of this study, Investment Recovery of GSCM practices has a positive impact on financial performance, as it enables companies to achieve maximum benefits from the green supply chain practices and increase long-term profitability. The data analysis done for this research provides enough indication to claim that the practices of (G.S.C) management implementation affected the

ISSN (Print): 2790-7848 ISSN (Online): 2790-7856
Volume 1, Issue 1, Page 1-27, June 30, 2021

financial performance of the industry because the organization sells out its extra inventory, used materials, scrap and extra capital equipment and earns maximum profit.

According to the analysis of this study, the Eco-design practices of GSCM have positive effects on the company's financial performance, as they enable companies to implement the practices of a green supply chain to reduce the omission of CO_2 in the air, reduce waste, save energy during the production process and protect natural resource by using alternative material of fuel. So, organizations achieve maximum benefits from green supply chain practices and increase their long-term profitability. The statistics analysis done for this research provides enough indication to claim that the practices of green supply chain implementation are affected by the company's financial performance.

According to this research, Cooperation with the customer and Green Information system does not have an impact on the financial performance of the organization. The data analysis done for this research does not provide enough indication to claim that the financial performance is affected by the Cooperation with the customer and the Green Information system provided.

Research Implications

This research is a proper, pertinent, published study. It has made a research model to examine the impact of financial performance on cooperation with the consumers, green system of information, Inv. Rec, and Eco-friendly design when adoption of practices of (G.S.C) management. An analysis of the prevalent literature shows that the same study has not been directed at the cement manufacturing sector in Karachi. So, in addition to providing this research paper for theoretical enhancement, manufacturing companies involved in supply chain processes can take advantage to grow and implement strategies to make the supply chain green.

Theoretical Implications

This research will rationalize the impact of the financial performance that hinders the application of GSCM practices in an organization. The findings increase the academic indulgence of the practices of (G.S.C) management, such as cooperating with the consumers, green system of information, Inv Rec, and Eco-friendly design as significantly important for the performance of the industry.

Practical Implications

There are 03 management implications to this research. First, the results of this research will help cement industry management, and other manufacturing industries understand how these green supply chain practices can negatively impact financial performance and the green supply chain. Suppose you want to improve practices of (G.S.C) management and make your supply chain greener. In that case, you need to implement the practices of (G.S.C) management and negatively affect the overall performance and profitability of your organization will be increased.

Second, based on this paper, before focusing on the practices of (G.S.C) management, organizations can prioritize those green practices accordingly. When employing the practices of the green supply chain, the management of the company should be committed to following the green practices. It must have the leadership skills to make employees follow these implementations.

Third, the management must create a learning culture and provide proper development and training to the employees for a better understanding of green practices to enhance their skill levels and make them prepared and equipped to follow the practices of (G.S.C) management to reduce environmental issues and enhance the Financial Position of the industry.

Study Limitations

For most of the research, no matter how good they are, they must face some limitations. These limitations are beneficial for other researchers who want to research because they give good guidance for upcoming research. The researcher has confronted boundaries in terms of time. Restriction of this study: The sample size for this study is 114, so these results may differ for the overall population. The data has been gathered from a few cement manufacturing companies located in Karachi city; if the record or data had been collected from different cities, the findings may have been different. The results of the study might be different if the statistics were gathered from other cement companies in Pakistan.

Conclusion

This research finds out the effect of the implementation of practices of (G.S.C) management related to the firm's success. Scholars used quantitative analysis by gathering different feelings using descriptive and speculative statistics and finding significant conclusions. After the study of this research, it may be concluded that the implementation of green supply chain practices is vital for any organization, especially when it wants to acquire a competitive edge over its rivals. Implementation of green supply chain practices enhances the financial performance and environmental performance of the firm.

The concept of green practices and implementation enables organizations to have a waste-free manufacturing process and value streaming, reducing energy and protecting natural resources, which will minimize the wastage of resources as well as increase overall profitability or industry financial performance. This study examines the effect of the financial performance of the industry on the successful execution of practices of (G.S.C) management. The (G.S.C.) management practices implementation increases the F-Performance of the industry by many factors, a few of which are studied in this paper. These factors include cooperating with the consumers, a green system of information, and inv. Recovery and E-design. The top management is bound to play a positive role in terms of leading the process of (G.S.C) practices, which can also be referred to as the adoption of the practices of (G.S.C) management.

Top management of the industry will drive the strategy and lead the process to the successful completion of green practices. However, the strategy crafted by the top management should be deployed throughout the supply chain,

ISSN (Print): 2790-7848 ISSN (Online): 2790-7856
Volume 1, Issue 1, Page 1-27, June 30, 2021

which is only possible if this strategy is properly conveyed through effective communication channels and proper training to all the company employees on how to follow these green practices.

However, this study indicates that the practices of green supply chain implementation, i.e., cooperation with the consumers and green information system, are not affected by the financial performance of the organization. Another crucial factor to consider is adequate, Inv. Rec and Eco-friendly design, especially those involved in the practices of (G.S.C) management, upsurge the financial performance of the firm.

The findings of this study suggested that the adoption of practices of GSCM helps organizations to comply with the rules and regulations of the environment that are imposed by the regulatory authorities; these green practices help the firms to increase their financial and environmental performance.

Recommendations

Mentioned below are the recommendations grounded on the findings of this research:

- The firm's management is recommended to progress expertise in the implementation of practices of green supply chain and other management skills because practices of the green supply chain are the only sources of the organization to increase its financial performance.

- The leadership initiative should come from the top hierarchy of the organization, especially regarding decisions about the adoption of the practices of (G.S.C) management.

- The efforts of all the stakeholders should be in alignment with the process of (G.S.C) practices implementation according to strategies formulated by the top management of the organization.

- Managerial staff of the cement industry should follow friendly environmental practices in the Supply chain process.

- Empirically test, find out the result that, when implemented, practices of (G.S.C) are imperative it enhances the financial as well as environmental performance.

- Findings of this research provide information to the managers and professionals of (S.C) that practices of (G.S.C) management are compulsory for every organization for compliance with environmental and economic rules and regulations and to increase the profitability of the firms. Organizations must collaborate with all partners of the supply chain upstream and downstream for effective execution of practices of (G.S.C) and meet the needs of end consumers.

- We suggested that a sustainable environment is essential for the economy, and we provide evidence to support the need for production firms to adopt green supply chain practices in support of customers and suppliers.

- The production manager should develop the knowledge of practices of (G.S.C) management for every employee of the industry. Hence, employees are focused on implementing the supply chain practices within the organization to increase the firm's F-performance.

- The production manager should be responsible for organizational performance. If he adopts the practices of (G.S.C) and fulfills the needs of the final customer. The result of these practices is to increase the performance and profitability of the organization.

- Nowadays, the sustainability of the environment is especially important. Organizations must improve their current enterprise information systems to monitor the sustainability of the environment with the implementation of green supply chain practices.

- Implantation of green supply chain practices: The firm's management must follow the green practice as investment recovery. In this green practice, the organization sells out its extra inventory, extra material, scrap, and extra capital equipment. The organization recovers the maximum value of the asset. After the successful implementation of investment recovery practices, the organization increases its financial performance.

- The manufacturing manager should focus on making a product that is environmentally friendly to implement the practices of the green supply chain in terms of Eco-design. When a firm follows the green practice of Eco-design, it reduces waste, saves energy during production, minimizes the consumption of materials, minimizes CO2 emissions in the air and saves natural resources by using alternate materials and fuels.

- Finally, the Government should make a policy for manufacturing companies that each manufacturing company must implement the practices of (G.S.C) management for environmental sustainability, reduce hazardous material, and make environment friendly. This policy will make the environment clean and friendly and upsurge the financial performance of the organization.

References

Ambec, S., & Lanoie, P. (2008). Does It Pay to Be Green? A Systematic Overview. *Academy of Management Perspectives*, 22(4), 45-62.

Ananda, A. A. (2018). Role of GSCM in embolden competitiveness and performance: Evidence from Indonesian organizations. International *Journal of Supply Chain Management*. 7(5), 437-442.

ISSN (Print): 2790-7848 ISSN (Online): 2790-7856
Volume 1, Issue 1, Page 1-27, June 30, 2021

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411.

Baines, T. B. (2012). "Examining green production and its role within the competitive strategy of manufacturers." *Journal of Industrial Engineering and Management*, 5(1), 53-87.

Büyüközkan, G. a. (2012). "Evaluation of the GSCM practices: a fuzzy ANP approach." *Production Planning and Control*, 23(6), 405-418.

Carter, C. K. (2000). "Environmental purchasing and firm performance: an empirical investigation" Transportation Research Part E: *Logistics and Transportation Review*, 36(3), 219–228.

Chandra, C. G. (2007). "Problem taxonomy: a step towards effective information sharing in supply chain management," *International Journal of Production Research*, 45(11), 2507-2544.

Chen, C.-C. (2005). "Incorporating green purchasing into the frame of ISO 14000", Journal of Cleaner Production, 13(9), 927–933.

Chien, M. a.-H. (2007). "An empirical study of the implementation of GSCM practices in the electrical and electronic industry and their relation to organizational performances," *International Journal of Environmental Sci*, 4(3), 383–394.

Chien, M. and Shih, L.-H. (2007). "An empirical study of the implementation of GSCM practices in the electrical and electronic industry and their relation to organizational performances," *International Journal of Environmental Science and Technology*, 4(3), 383–394.

Chin, T. A., Huam, T. H., & Zuraida, S. (2015). GSCM, Environmental Collaboration and Sustainability Performance. *Procedia CIRP*, 26, 695-699.

Chin, W. W., Peterson, R. A., & Brown, S. P. (2008). Structural equation modeling in marketing: Some practical reminders. *Journal of marketing theory and practice*, 16(4), 287–298.

Choi, D. & Hwang, T. (2015). "The impact of GSCM practices on firm performance: the role of collaborative capability," *Operations Management Research*, 8(3/4), 69–83.

Chuang, S.-P. A.-J. (2018). "The effect of environmental corporate social responsibility on environmental performance and business competitiveness: the mediation of green information technology capital." *Journal of Business Ethics*, 150, 991–1009.

Corbett. (2013). "Using information systems to improve energy efficiency: Do smart meters make a difference?" *Information Systems Frontiers*, 15(5), 747–760.

Cote, R. A. (2004). "Integrating GSCM into an embryonic Eco-industrial development: a case study of the guiding group," Journal of Cleaner Production, 12(10), 1025–1035.

Dao, V. L. (2011). "From green to sustainability: information technology and an integrated sustainability framework," *The Journal of Strategic Information Systems*, 20(1), 63–79.

Daugherity, P. R. (2005). "Reverse logistics: superior performance through focused resource commitments to information technology." *Transportation Research Part E: Logistics and Transportation Review*, 41(2), 77-92.

De Franzo, S.E. (2011, Sep 16). What is the difference between qualitative and quantitative research? Retrieved from HTTPS.

Dias, A., Rodrigues, L. L., Craig, R., & Neves, M. E. (2018). Corporate social responsibility disclosure in small and medium-sized entities and large companies. *Social Responsibility Journal*.

Eltayeb, T. K., Zailani, S., & Ramaya, T. (2011). Green supply chain initiatives among certified companies in Malaysia and environmental sustainability: Investigating the outcomes. Resources, *Conservation and Recycling*, 55(5), 495-506.

Esty, D. A. (2009). Green to Gold: How Smart Companies Use Environmental Strategy to Innovate, Create Value, and Build Competitive Advantage. *John Wiley and Sons*.

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.

Freeman, R. (2010). Strategic Management: A Stakeholder Approach, *Cambridge University Press.*

G, T. (2001). Customer and supplier relations for environmental performance. *Greener Manag Int.* 35, 61–69.

Geffen, C. A. (2000). "Suppliers and environmental innovation: the automotive paint process," *International Journal of Operations and Production Management*,20(2), 166–186.

Geng, R. M. (2017). "The relationship between GSCM and performance: a meta-analysis of empirical evidence in Asian emerging economies." *International Journal of Production Economics*, pp. 183, 245–258.

Gholami, R., Sulaiman, A.B., Ramayah, T. and Molla, A. (2013). "Senior managers' perception on green information systems (IS) adoption and environmental performance: results from a field survey," *Information and Management*, 50(7), 431–438.

ISSN (Print): 2790-7848 ISSN (Online): 2790-7856
Volume 1, Issue 1, Page 1-27, June 30, 2021

Green Kenneth W. Jr, P. J. (2012). GSCM practices: impact on performance, *Supply Chain Management: An Int J* 17(3), 290–305.

Green KW Jr, M. R. (2006). Does supply chain management strategy mediate the association between market orientation and organizational performance? *Supply Chain Manage an Int. J*, 11(5), 407–414.

Green, K. A. (2005). "Using a just-in-time selling strategy to strengthen supply chain linkages," *International Journal of Production Research*, 43(16), 3437–3453.

Green, K. J. (2008). "The impact of logistics performance on organizational performance in a supply chain context." *Supply Chain Management: An International Journal*, 13(4), 317–27.

Green, K. J. (2012). "Do environmental collaboration and monitoring enhance organizational performance?" *Industrial Management and Data Systems*, 112(2), 186–205.

Green, K., Zelbst, P., Meacham, F., & Badauria, V. (2012). GSCM practices: impact on performance. *Supply Chain Management: An International Journal*, 17(3), 290-305.

Grønhaug, K. a. (1988). Innovation: A Cross-Disciplinary Perspective, *Oxford University Press*.

Gupta, R. P. (2015). "A review on green and sustainable manufacturing and their impact on social, economic, environmental prospects." *International Journal on Applications in Science, Engineering and Technology*, pp. 01, 8–12.

Harms, D. H. (2013). "Strategies in sustainable supply chain management: an empirical investigation of large German companies," *Corporate Social Responsibility and Environmental Management*, 20(4), 205–218.

Henri, J.-F., & Journeault, M. (2010). Eco-control: The influence of management control systems on environmental and economic performance. *Accounting, organizations, and society*, 35(1), 63-80.

Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., ger

Ho DCK, A. K. (2002). Empirical research on supply chain management: a critical review and recommendations. *Int J Prod Res*, 40(17), 4415–4430.

Hu, L.-t., and Bentler, P. M. (1998). Fit Indices in Covariance Structure Modeling: Sensitivity to Under parameterized Model Misspecification, *Psychological Methods*, 3(4): 424-453.

Huiying Zhang, F. Y. (2016). On the drivers and performance outcomes of green practices adoption Anempiri calstudyin China. *Ind Manag Data Syst*, 116(9), 2011–2034.

Jääskeläinen, A. a. (2019). "Purchasing and supply management practices in customer value creation." *Supply Chain Management: An International Journal*.

Jabbour, A. B., Jabbour, C., Govindan, K., Kanna, D., & Arantes, A. F. (2014). Mixed methodology to analyze the relationship between the maturity of environmental management and the adoption of GSCM in Brazil. *Resources, Conservation and Recycling*, pp. 92, 255–267.

Kagan RA, G. N. (2003). Explaining corporate environmental performance: How does regulation matter? *Law Soc Rev*, 37(1) 51–90.

Khan, S. A. (2017). "Impact of GSCM practices on firms' performance: an empirical study from the perspective of Pakistan," *Environmental Science and Pollution Research*, 24(20), 16829–16844.

Klasen, R. a. (1999). "Environmental management in operations: the selection of environmental technologies." *Decision Sciences*, 30(3), 601-631.

Kleindorfer, P. S. (2005). "Sustainable operations management". *Production and Operations Management*, 14(4), 482-492.

Kline, P. (2000). The handbook of psychological testing. *Psychology Press*.

KumarA, J. V. (2014). A comprehensive environment-friendly approach for supplier selection. Omega 42(1), 109–123.

Lee, S. T. (2012). "GSCM and organizational performance." Industrial Management and Data Systems, 112(8), 1148–1180.

Lenox M, K. A. (2004). Prospects for developing absorptive capacity through internal information provision. *Strategy Manage J*, 25(4), 331– 345.

Linn, R.-J. (2013). "Using fuzzy DEMATEL to evaluate the GSCM practices." *Journal of Cleaner Production*, pp. 40, 32–39.

Linton J, K. R. (2007). Sustainable supply chains: An introduction. *Journal of Operations Management*, 25(6), 1075-1082.

Liu, H. K. (2010). "The role of institutional pressures and organizational culture in the firm's intention to adopt internet-enabled supply chain management systems." *Journal of Operations Management*, 28(5), 372–38.

Longoni A, C. R. (2018). Inclusive environmental disclosure practices and firm performance. *Int J Oper Prod Manag*, 38, 1815-1835.

Longoni, A. and Gagliano, R. (2018). "Sustainable innovativeness and the triple bottom line: the role of organizational time perspective," *Journal of Business Ethics*, 151(4), 1097–1120.

Min, H. A. (2001). "Green purchasing practices of US firms." *International Journal of Operations and Production Management*, 21(9), 1222–1238.

ISSN (Print): 2790-7848 ISSN (Online): 2790-7856
Volume 1, Issue 1, Page 1-27, June 30, 2021

Narasimhan, R. a. (2012). "The effects of integrated supply management practices and environmental management practices on relative competitive quality advantage." *International Journal of Production Research*, 52(4), 1185-1201.

Nunnally, J. (1978). Psychometric Theory, *McGraw-Hill*, New York, NY.

Oliveira, U. R., Espindola, L. S., Silva, I. R., Silva, I. N., & Rocha, H. M. (2018). A systematic literature review on GSCM: *Journal of Cleaner Production*, 187, 537-561.

Porter, M. a. (1995). "Green and competitive: ending the stalemate," *The Dynamics of the Eco-Efficient Economy: Environmental Regulation and Competitive Advantage*, 33.

Prajogo, D. C. (2012). "The relationship between supplier management and firm's operational performance: a multi-dimensional perspective." *International Journal of Production Economics*, 136(1), 123-130.

Rahman, A. A. (2014). Pressures, GSCM Practices and Performance of ISO 14001 Certified Manufacturers in Malaysia. *International Journal of Economics and Management*, 8, 1–24.

Rao, P. A. (2005). Do green supply chains lead to competitiveness and economic performance? *International Journal of Operations & Production Management*, 25(9-10), 898–916.

Rao, P., & Holt, D. (2005). Do green supply chains lead to competitiveness and economic performance? *International Journal of Operations & Production Management*, 25(9), 898-916.

Reinhardt, F. (1998). "Environmental product differentiation: implications for corporate strategy." *California Management Review*, 4(4), 43–73.

Rockness, J. R. (1986). "Hazardous waste disposal, corporate disclosure, and financial performance in the chemical industry," *Advances in Public Interest Accounting*, 01, 167–191.

Saeed, A. J. (2018). "Institutional pressures, GSCM practices on environmental and economic performance: a two-theory view." *Sustainability*, 10(5),15–17.

Sanchez Medina, P. D.-P.-C.-L. (2015). "Environmental compliance and economic and environmental performance: evidence from handicrafts small businesses in Mexico." *Journal of Business Ethics*, 126(3), 381-393.

Sarkis, J. (2012). Boundaries and flows perspective of GSCM. *Supply Chain Management: An International Journal*, 17(2), 202–216.

Sarkis, J. a. (2005). "Real options analysis for 'green trading': the case of greenhouse gases." *The Engineering Economist*, 01, 167-191.

Saunders, M., Lewis, P. & Thornhill, A. (2012). "Research Methods for Business Students," 6th edition, *Pearson Education Limited*. England.

SB, B. (2001). Managerial perceptions of corporate environmentalism: interpretations from industry and strategic implications for organizations. *J Manag Stud*, 38(4), 489–513.

Seuring, S. (2004). "Integrated chain management and supply chain management comparative analysis and illustrative cases," *Journal of Cleaner Production*, 12(8/10), 1059–1071.

Seuring, S., & Müller, M. (2008). Core Issues in Sustainable Supply Chain Management – a Delphi Study. *Business Strategy and the Environment*, 17(8), 455-466.

Sharma, S. P. (1999). "Corporate environmental responsiveness strategies: the importance of issue interpretation and organizational context." *The Journal of Applied Behavioral Science*, 35(1), 87–108.

Smith. (2010). An examination of marketing techniques that influence millennia's perception of whether the product is environment friendly. *J Strateg Mark*, 18(6), 437–450.

Srivastava, S. K. (20017). Green supply-chain management: A state-of-the-art literature review. *International Journal of Management Reviews*, 9, 53–8.

Srivastava, S. K. (2017). Green supply-chain management: A state-of-the-art literature review. *International Journal of Management Reviews*, 9, 53–8.

Suryanto, T. H. (2018). The correlates of developing GSCM practices: Firms level analysis in Malaysia. *International Journal of Supply Chain Management*, 7(5), 316.

Tan, C. L., Zailani, S. H., Tan, S. C., & Shaharudin, M. R. (2016). The impact of GSCM on firm competitiveness. *Int. J. Business Innovation and Research*, 539-558.

Taylor, T. A., & Erica, P. L. (2007). Supply Chain Relationships and Contracts: The Impact of Repeated Interaction on Capacity Investment and Procurement. *Supply Chain Relationships and Contracts*, 53(10), 1577–1593.

Tsoulfas GT, P. C. (2006). Environmental principles applicable to supply chain Design and operation. *J Clean Prod*, 14(18), 1593–1602.

Vaccaro, A. a. (2010). "Corporate transparency and green management" *Journal of Business Ethics*, 95(3), 487-506.

Vachon, S. a. (2008). "Environmental management and manufacturing performance: the role of collaboration in the supply chain." *International Journal of Production Economics*, 111(2), 299-315.

ISSN (Print): 2790-7848 ISSN (Online): 2790-7856
Volume 1, Issue 1, Page 1-27, June 30, 2021

Wakulele, S. R., Odock, S., Chepkulei, B., & Kiswili, N. E. (2016). Effect of Eco-design Practices on the Performance of Manufacturing Firms in Mombasa County, Kenya. *International Journal of Business and Social Science*, 7(8), 108-132.

Wua, G.-C., Ding, J.-H., & Chen, P.-S. (2012). The effects of GSCM drivers and institutional pressures on GSCM practices in Taiwan's textile and apparel industry. *Int. J. Production Economics*, 618-636.

Yaang, C.-S. (2018). "An analysis of institutional pressures, GSCM, and green performance in the container shipping context." *Transportation Research Part D: Transport and Environment*, 61, 246–260.

Zailani, S. K. (2015). "Green innovation adoption in the automotive supply chain: the Malaysian case," *Journal of Cleaner Production*, 108, 1115–1122.

Zelbst P, G. K. (2010). Relationships among market orientation, JIT, TQM, and agility. *Ind Manag Data Syst*, 110(5), 637–658.

Zhu- Q., S. J.-h. (2012). "GSCM innovation diffusion and its relationship to organizational improvement an ecological modernization perspective," *Journal of Engineering and Technology Management*, 29(1), 168–185.

Zhu, Q. A. (2001). "Integrating environmental issues into supplier selection and management," *Greener Management International*, 35(3), 27–40.

Zhu, Q. A. (2004). "Relationships between operational practices and performance among early adopters of GSCM practices in Chinese manufacturing enterprises." *Journal of Operations Management*, 22(3), 265–289.

Zhu, Q. F. (2017). "The role of customer relational governance in environmental and economic performance improvement through GSCM," *Journal of Cleaner Production*, 155, 46–53.

Zhu, Q. G. (2010). GSCM in leading manufacturers: Case studies in Japanese large companies. *Management Research Review*, 380–392, 33(4), 380–281.

Zhu, Q. S. (2013). "Institutional-based antecedents and performance outcomes of internal and external GSCM practices," *Journal of Purchasing and Supply Management*, 19(2), 106–117.

Zhu, Q., Sarkis, J., & Geng, Y. (2015). GSCM in China: pressures, practices, and performance. *International Journal of Operations & Production Management*, 449-468.

Zhu, Q., Sarkis, J., & Lai, K.-H. (2012). GSCM innovation diffusion and its relationship to organizational improvement: An ecological modernization perspective. *Journal of Engineering and Technology Management*, 29(1), 168-185.