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Green Supply Chain, Green Communication and Firm Performance: Empirical Evidence from Thailand

Limega Candrasa[a], Cia Cai Cen[b], Willy Cahyadi[c], Lukieto Cahyadi[d], Ikbar Pratama[e]

[a,b,c,d]STIE Bina Karya, Tebing Tinggi, Sumatera Utara, Indonesia
[e]Fakultas Ekonomi dan Bisnis, Universitas Medan Area, Medan, Sumatera Utara, Indonesia
Corresponding Author: ikbar.p@gmail.com

Abstract

Present study investigates the mediating role of green communication (GRC) on the relationship between green supply chain (GRSC) and firm performance (FP). Study uses three different dimensions of GRSC such as green purchasing (GRPU), green manufacturing (GRM), green packing (GRPK), and green distribution (GRD). For this purpose, study collects the data from 429 employees of three polluting industries i.e., automobile, chemical and manufacturing industries of Thailand. Study applies partial least square structural equational modeling (PLS_SEM) for examining the empirical results. Study used measurement model for testing the reliability and validity of the data. Structural model is used for testing the hypothesized relationship of variables. Results of the study shows the positive impact of GRPU, GRM, GRPK and GRD on FP. Study further shows GRC significantly mediates the relationship between GRPU & FP, GRM & FP, and GRD & FP. Results of the study suggest that manager of the firm should provide the incentive to the employees who adapt GRSC practices.

Keywords: Green communication; Green supply chain; Green purchasing; Green manufacturing; Green distribution; Firm performance; Thailand

1. Introduction

Nowadays, environmental disputes are one of the main concerns of researches. Therefore, the integration of environmental disputes and organizational performance have received huge attention from the business researchers (Sammalisto & Brorson, 2008). Different organizations, industries, companies and firms are the main reason behind these environmental disputes because companies extracted the raw material from the environment during their production process. Thus, environmental disputes i.e., deterioration of natural resources, and environmental pollution are the main factors behind the universal efforts to greening the supply chain (GRSC). GRSC has become an organizational obligation in some industrialized nations. However, when it comes to the developing nations, most of them are still late adopters.

GRSC is an integrable concern which fundamentally arises from building sustainable management practices in the context of supply chain (Eltayeb et al., 2011). GRSC incorporates the environmental concerns into the supply chain management (Teixeira et al., 2016). Supply chain comprising of such activities that are related with the conversion and discharge of goods and services from the substantial sources to the end consumer including the combination of internal and external activities of the firm. Srivastava (2007) informed that GRSC is established with the idea of including environmental concerns in the SCM (supply chain management). Lin & Ho (2010) indicated the positive effects of GRSC on organizational performance because GRSC enhances the competitiveness of the firm by improving its environmental performance (Lubis et al., 2015; Isnaini et al., 2020; Lubis et al., 2019; Russo, 2009). Therefore, most of the organizations are focusing on the enhancement of their green practices. From a macro perspective, green practices help in the purchasing, manufacturing, packing and the distribution of green products which are compatible with the environment (Welling & Chavan, 2010).

Research shows the positive effect of GRSC practices on organizational performance as it has an ability to lead towards maintainable comparative advantage. Wagner (2005) proposed that those organizations who adopt GRSC practices, having a good repute in the market. GRSC practices give a path to the green communications, which capture GRSC practices and used them for improving the

organizational performance (Pratama et al., 2019; Rasool et al., 2016; Saragih et al., 2020; Utami et al., 2019; Younis et al., 2016). GRC defined as the system of choosing energy-efficient communications and interacting technology (Rogelberg & Stanton, 2007). GRC emphasize the environmental effects of different products in the advertising campaign. Companies can add regular information, related to environmental concerns, on their websites with the help of GRC which will attract more customers and thus increases the firm's revenue.

Synthesizing the discussion from above, it is concluded that GRSC practices positively contributes in the organizational performance and GRC creates the link between GRSC and FP. To the author's best knowledge, this link is not investigated yet. Therefore, present study contributes in the existing literature in the following ways: First, present study investigates the mediating role of GRC on the relationship between GRSC and FP. Second, the study used four dimensions of GRSC i.e., GRPU, GRM, GRPK, and GRM and investigates the direct and indirect effect of these dimensions on the FP in Thailand.

Remaining paper has following structure: section 2 shows the review of existing literature, development of hypothesis, and conceptual model of the study; section 3 is about the data & methodology; section 4 shows the empirical results of the study; section 5 is about the conclusion, discussion and implication of the study.

2. Literature Review

2.1 Green Supply Chain (GRSC) and Firm Performance (FP)

Nugroho et al., (2020); Nu'man et al., (2020); Srivastava (2007) indicated that GRSC comprises of different aspects, including Green purchasing (GRPU), Green design (GRD), green manufacturing (GRM), green production (GRPR), and green distribution (GRD) which positively affects the environmental performance of any firm. Walker, Di Sisto & McBain (2008) specified that the concept of GRSC covers all the stages of product's life cycle i.e., from the abstraction of raw material to the usage and discarding of the product. When author studied the existing literature of GRSC, it has been found that existing researchers discussed tem dimensions of GRES, including "Green management (GRM), Green design (GRD), Green Purchasing (GRP), Customer cooperation with environmental concerns (CCEC), Green Stock (GS), Green logistic (GRL), Green manufacturing (GRM), green production (GRP), Green innovation (GRI), Green packing (GRPK), green distribution (GRD), Green education (GRE), External GSC (EGSC), and Environmental participation (ENP). By considering these studies, present study selected four dimensions of GRSC i.e., Green Purchasing (GRPU), Green manufacturing (GRM), green packing (GRPK), and green distribution (GRD).

2.1.1 Green Purchasing (GRPU)

Dubey et al. (2013) investigated the influence of GRPU on the environmental performance of the firm. For this purpose, study collected the data from 232 respondents of textile industry. Results of the study revealed the positive influence of GRPU on the environmental performance of textile industry Raghavendran et al. (2012) investigated the impact of GRPU on the financial performance of the firm by using the data of 242 participants. Findings of the study showed the positive relationship between GRPU and firm's financial performance. This is so because GRPU supports supply chain and attract consumers, which in their turn increases the competitiveness of the firm. Carter, Kale & Grimm (2000) explored the relationship between GRPU, and FP. Results of the study showed the positive contributions of GRPU in FP. Hamner (2006) investigated the influence of GRPU on the economic performance of firm. For this purpose, Author collected the data from 234 participants. Study applied OLS regression model and showed the positive relationship between GRPU and firm's economic performance. Hence, it is assumed that:

H_1: "There is positive relationship between Green Purchasing and Firm performance"

2.1.2 Green Manufacturing (GRM)

Sezen & Cankaya (2013) investigated the relationship between GRM and the environmental performance of the firm. For this purpose, study collected the data from 53 firms of automotive and electronic sectors. Study applied OLS regression model and showed the positive effects of GRM on the environmental performance of the firm. Lee & Min (2015) also revealed the positive relationship between GRM and the environmental performance of the firm by using the data of Japan's manufacturing firm from 2001-2010. Tang et al. (2018) investigated the influence of Green innovation and GRM on the FP by using the data of 188 respondents of Chinese manufacturing firms. Result of the study showed that green innovation and GRM are positively related with FP. Thus, it is hypothesized that:

H_2: "There is positive relationship between Green Manufacturing and Firm Performance"

2.1.3 Green Distribution (GRD)

Sari & Yanginlar (2015) studies the influence of green logistic on the performance of firm. For this purpose, study collected the data from 234 respondents. Study applied OLS regression model and reveled tye positive relationship between green logistic and FP. Lun (2011) investigated the impact of green purchasing and green distribution on the corporate performance and revealed the positive relationship between these variables. similarly, Luan, Tien, & Chen (2016) also indicated the positive influence of GRD on FP. So, it is assumed that:

H_3: "There is positive relationship between Green distribution and Firm Performance"

2.1.4 Green Packing (GRPK)

Azevedo, Carvalho, &Machado (2011) investigated the influence of green practices on the environmental performance of the firm and revealed the positive relationship between green practices and fiurm's environmental performance. This is so because, green practices reduce the waste production and the usage of energy. Thus, it is concluded that:

H_4: "There is positive relationship between Green packing and Firm performance"

2.2 Green Supply Chain (GRSC), Green Communication (GC) and Firm Performance (FP)

Carr & Kaynak (2007) examined the relationship between communication methods and FP. Results of the study showed that the methods of communication significantly influence the performance of firm because communication effects the buyer-supplier relationship, and if the relationship between buyer and supplier is strong, then the firm competitiveness will increase which ultimately increase the FP. Khan et al. (2019) investigated

the influence of GRSC practices on the GRC by using the data of 53 firms of manufacturing industry of china. Result of the study showed the positive influence of GRSC on GRC. Blome, Hollos, & Paulraj (2014) examined the impact of green communication on the performance of supplier. For this purpose, study utilized the data of 422 participants and applied OLS regression model for examining the empirical relationship among variables. Findings of the study showed that the performance of supplier is positively influenced by the green communication. Xia, Chen, & Zheng (2015) utilized the data of textile industry and examined the influence of green practices on the green communication. Findings of the study indicated that green practices having significant effects on GRC. Thus, it is proposed that:

H_5: "There is positive relationship between Green Purchasing and Green Communication"

H_6: "There is positive relationship between Green Manufacturing and Green Communication"

H_7: "There is positive relationship between Green Packing and Green Communication"

H_8: "There is positive relationship between Green Distribution and Green Communication"

H_9: "There is positive relationship between Green Communication and Firm Performance"

2.5 Green Communication as Mediator (GRC)

Nowadays, industrialists emphasized on the GRS practices. Similarly, consumers are also become environmentally sensible. Therefore, they are concerned about the methods of product promotion i.e., either the particular product is produced is a sustainable manner or not. Currently, companies are experiencing rapid increase in the demand of green products, therefore, they shift their focus towards GSC practices so that they can preserve their comparative advantage (Saragih et al., 2020; Zhu, Sarkis & Geng, 2005). As the demand for green product increases, supply chain face serious scrutiny about the input resources, production processes and for other supply chain related issues. It is important for the supply chain associates to express mutual obligation towards the green practices. When the firms improve their relations with consumers through GRC, it will support the firm's image in the market as well as in the mind of consumers. Literature shows that those firms who emphasize on green practices are able to flourish their reputation in the industry (Zhu, Sarkis & Lai, 2013). Therefore, it is proposed that:

H_{10}: "Green Communication mediates the relationship between Green Purchasing and Firm Performance"

H_{11}: "Green Communication mediates the relationship between Green Manufacturing and Firm Performance"

H_{12}: "Green Communication mediates the relationship between Green Packing and Firm Performance"

H_{13}: "Green Communication mediates the relationship between Green Distribution and Firm Performance"

2.6. Conceptual Model

Figure 1 shows the conceptual model of the study. Models consist of six latent variables i.e., GRPU, GRM, GRD, GRPK, GRC and FP. GRPU, GRM, GRD and GRPK are different dimensions of GRSC which are used as independent variables of the study. Study uses GRC as a mediating variable while FP is used as a dependent variable of the study.

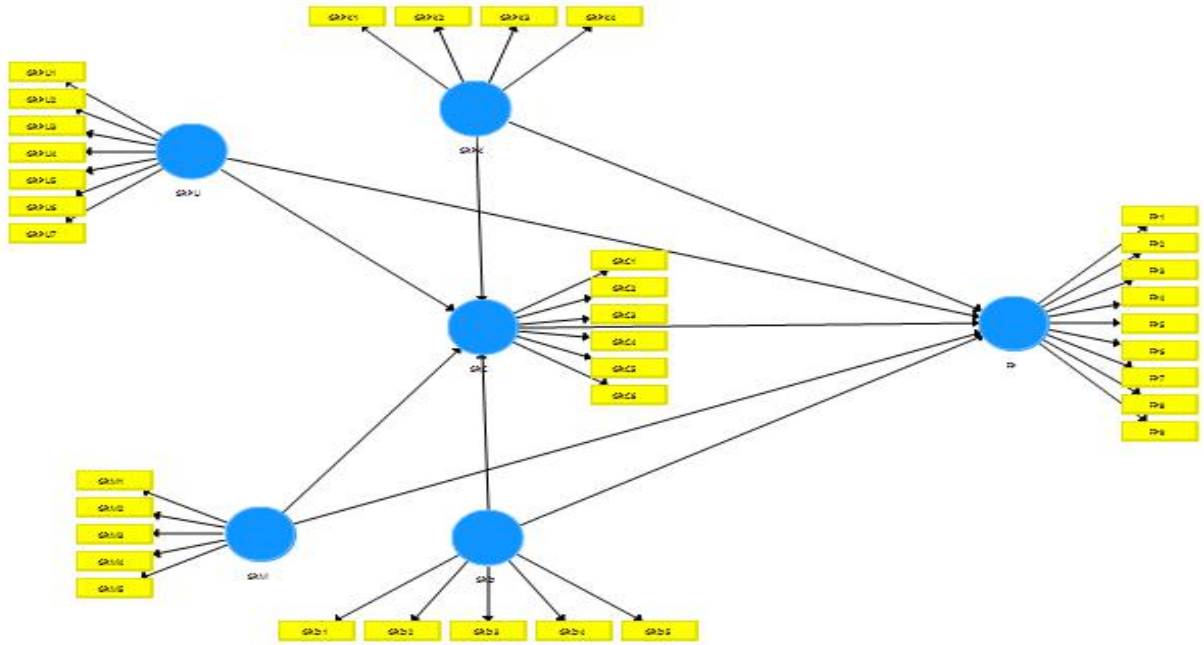


Figure 1. Conceptual Model

3. Data and Methodology

3.1. Sample and Data collection

Specified the conditions of resource depletion, waste creation, and execution of ecological practices, present study emphases on three polluting industries of Thailand, i.e., automobile, chemical and manufacturing industries. According to the distribution of selected industries, study collects the data from the industrialized areas of Thailand. Data are collected through questionnaire survey by using three different methods i.e., through face to face surveys, through postal surveys and through email surveys. Questionnaire is based on 5-type Likert scale, starts from "1: strongly disagree to 5: strongly agree". Questionnaires consist of 2 sections. Section 1 contains the information about respondent's demographics i.e., information about gender, age, qualification, industry, nature of job, and

duration of job. Section 2 contains different items related to the modeled variables. This section contains 27 items of GRSC (i.e., 7 items of GRPU;5 items of GRM and GRD; 4 items of GRPK); 6 items of GRC; and 9 items of FP. Author sent 523 surveys to the industries and after 5 weeks author received 429 surveys back with the excellent response rate of 96%.

3.2. Description of Variables

3.2.1. Green Supply Chain (GRSC)

Study uses GRSC as an independent variable of the study. GRSC consist of following aspect:

3.2.2.1 Green Purchasing (GRPU)

GRPU is an important aspect of GRSC that author includes in the present study. GRP is defined as the acquisition of such products that are less sensitive to the environmental concerns.

3.2.2.2. Green Manufacturing (GRM)

GRM is an essential component of GRSC, included in the study, which is defined as the process of environmentally friendly product promotion.

3.2.2.4. Green Packing (GRPK)

Study uses another important element of GRSC that is GRPK. GRPK refers to the simple packing of the products which reduces the amount of polystyrene and indorse paper wrapping.

3.2.2.3. Green Distribution (GRD)

Author included another important aspect of GRSC: GRD. GRD consist of all activities which reduces the environmental costs and waste material during the consignment of the product.

3.2.2. Green Communication (GRC)

Study used GRC as a mediating variable which is defined as the system of choosing energy-efficient communications and interacting technology.

3.2.3. Firm Performance (FP)

Study uses FP as a dependent variable of the study. FP refers to the organizational performance, including the development of products, and effectiveness of various firm units, and the performance and achievement of the employees.

3.3. Analytical Techniques

Study uses partial least square structural modeling (PLS-SEM) for examining the empirical results of the study. Study applies PLS-SEM because it is most appropriate technique due to the composite nature of the model and influential nature of GRSC as it estimates the multiple regressions at one click. Study uses measurement model for testing the reliability and validity of the data. This model tests the reliability and validity of the data with the help of confirmatory factor analysis (CFA). Structural model is used for testing the proposed hypotheses of the study. Further, study conducted path analysis for examining the direct and indirect relationship between variables.

3.4. Specification of the Model

Present study uses following econometric models for testing the mediating role of green communication:

$FP = \beta_0 + \beta_1(GRPU) + \mu$ --- --- 1

$FP = \beta_0 + \beta_1(GRM) + \mu$ --- --- 2

$FP = \beta_0 + \beta_1(GRPK) + \mu$ --- --- 3

$FP = \beta_0 + \beta_1(GRD) + \mu$ --- --- 4

$GRC = \beta_0 + \beta_1(GRPU) + \mu$ --- --- 5

$GRC = \beta_0 + \beta_1(GRM) + \mu$ --- --- 6

$GRC = \beta_0 + \beta_1(GRPK) + \mu$ --- --- 7

$GRC = \beta_0 + \beta_1(GRD) + \mu$ --- --- 8

$FP = \beta_0 + \beta_1(GRC) + \mu$ --- --- 9

$FP = \beta_0 + \beta_1(GRPU) + \beta_2(GRC) + \mu$ --- --- 10

$FP = \beta_0 + \beta_1(GRM) + \beta_2(GRC) + \mu$ --- --- 11

$FP = \beta_0 + \beta_1(GRPK) + \beta_2(GRC) + \mu$ --- --- 12

$FP = \beta_0 + \beta_1(GRD) + \beta_2(GRC) + \mu$ --- --- 13

Where: "FP is firm performance. GRPU is green purchasing, GRM is green manufacturing, GRPK is green packing, GRD is green distribution, GRC is green communication, β_0 is intercept, β_1 ---- β_2 are intercepts, and μ *i*s normally distributed error term"

4. Empirical Results

4.1. Descriptive Statistics

Table 1 shows the mean, standard deviation (SD), minimum (min.) and maximum (max.) values of survey items. Mean value shows the average response of the participants, value of standard deviation shows the spread of the data, max. and min. values show the variation in the responses of different survey items. Results show that the response of 23 items vary from one to five, response of 10 items vary from two to five, and the response of 8 items vary from one to four. The average response of different items ranges from 2.038 to 4.496.

4.2. Measurement Model

Figure 2 shows the measurement model of the study, which is used to check the reliability and validity of different items and constructs. The model checks the reliability and validity of different items and construct by conducting confirmatory factor analysis (CFA).

4.2.3. Confirmatory Factor Analysis

Study conduct confirmatory factor analysis for testing the reliability and validity of each item and construct. Loading values are used for testing the convergent validity of survey items. CR is used to test the convergent validity of each construct. Cronbach alpha (CB) tests the reliability and internal consistency of the data. Finally, AVE tests the construct validity. Result shows that convergent validity is present in each item as the loading value exceeds from 0.4. Results also verified the presence of convergent validity in each construct as the value of CR for all construct is greater than 0.5. Construct validity is also present in the data as the coefficient of AVE for all construct is also greater than 0.5. Results also revealed that the data of each construct is highly reliable and internally consistent as the value of CB for each construct exceeds from 0.7.

4.2.4. Discriminate Validity

Study tests the discriminate validity of the data by using the Forner-Larker Criteria. This criterion uses correlation matrix for testing the discriminate validity of the data. Results of discriminate validity are shown in Table 3. Results verified the presence of discriminate validity in the data as the diagonal values of the Table (shown in bold) are greater than the remaining values

4.3. Structural Model

Figure 3 shows the structural model of the study, which is obtained with the help of bootstrapping process for testing the hypnotized relationship among variables. The model deals with the issue of collinearity and estimate the direct and indirect relationship among proposed variables.

Table 1. Descriptive Statistics

	Mean	Min	Max	SD
GRPU1	3.566	1	5	1.345
GRPU2	3.966	2	5	1.568
GRPU3	3.456	1	4	0.458
GRPU4	3.536	1	5	1.657
GRPU5	3.985	2	5	0.468
GRPU6	3.654	1	5	1.469
GRPU7	3.567	1	5	0.836
GRM1	3.345	1	4	0.227
GRM2	3.584	1	5	1.456
GRM3	3.368	1	5	0.684
GRM4	3.296	2	5	1.546
GRM5	3.845	1	5	1.238
GRD1	4.384	2	5	0.568
GRD2	3.028	1	5	1.348
GRD3	3.484	1	4	1.245
GRD4	2.347	1	5	0.568
GRD5	2.693	1	5	0.346
GRPK1	2.634	1	4	0.468
GRPK2	3.364	2	5	1.579
GRPK3	2.958	1	5	0.357
GRPK4	2.284	1	4	0.696
GRMR1	2.038	1	5	0.467
GRMR2	3.285	1	5	1.093
GRMR3	4.349	2	5	0.872
GRMR4	4.937	1	5	1.345
GRMR5	3.032	2	5	1.564
GRMR6	3.473	1	4	1.345
GRC1	3.286	1	5	1.569
GRC2	4.373	1	5	1.325
GRC3	4.496	2	5	1.569
GRC4	3.923	1	5	1.232
GRC5	4.569	1	5	1.348
GRC6	3.796	1	4	1.357
FP1	3.784	1	5	0.234
FP2	4.758	1	5	0.894
FP3	3.836	1	5	0.673
FP4	3.948	2	5	1.873
FP5	3.847	2	5	1.673
FP6	3.423	2	4	2.734
FP7	3.904	1	4	1.783
FP8	3.984	1	5	1.873
FP9	3.732	1	5	0.786

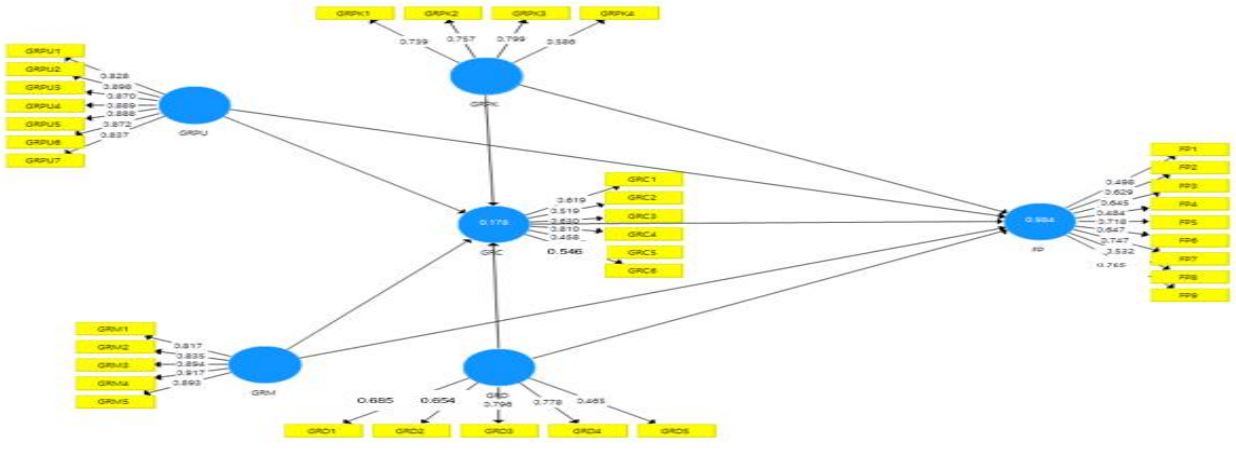


Figure 2. Measurement Model

Table 2. Confirmatory Factor Analysis

Variables	Abbreviations	Constructs	Loading	*Cronbach's alpha*	*CR*	*AVE*
IV: GRSC	**GRPU**	GRPU1	0.828	**0.798**	**0.837**	**0.734**
		GRPU2	0.898			
		GRPU3	0.870			
		GRPU4	0.889			
		GRPU5	0.888			
		GRPU6	0.872			
		GRPU7	0.837			
	GRM	GRM1	0.817	**0.834**	**0.874**	**0.784**
		GRM2	0.835			
		GRM3	0.894			
		GRM4	0.917			
		GRM5	0.893			
	GRD	GRD1	0.685	**0.835**	**0.735**	**0.833**
		GRD2	0.654			
		GRD3	0.796			
		GRD4	0.778			
		GRD5	0.465			
	GRPK	GRPK1	0.739	**0.704**	**0.873**	**0.821**
		GRPK2	0.757			
		GRPK3	0.799			
		GRPK4	0.586			
IV: GRC	**GRC**	GRC1	0.619	**0.863**	**0.736**	**0.855**
		GRC2	0.519			
		GRC3	0.630			
		GRC4	0.810			
		GRC5	0.458			
		GRC6	0.546			
DV: FP	**FP**	FP1	0.498	**0.887**	**0.984**	**0.794**
		FP2	0.629			
		FP3	0.645			
		FP4	0.484			
		FP5	0.718			
		FP6	0.647			
		FP7	0.747			
		FP8	0.532			
		FP9	0.765			

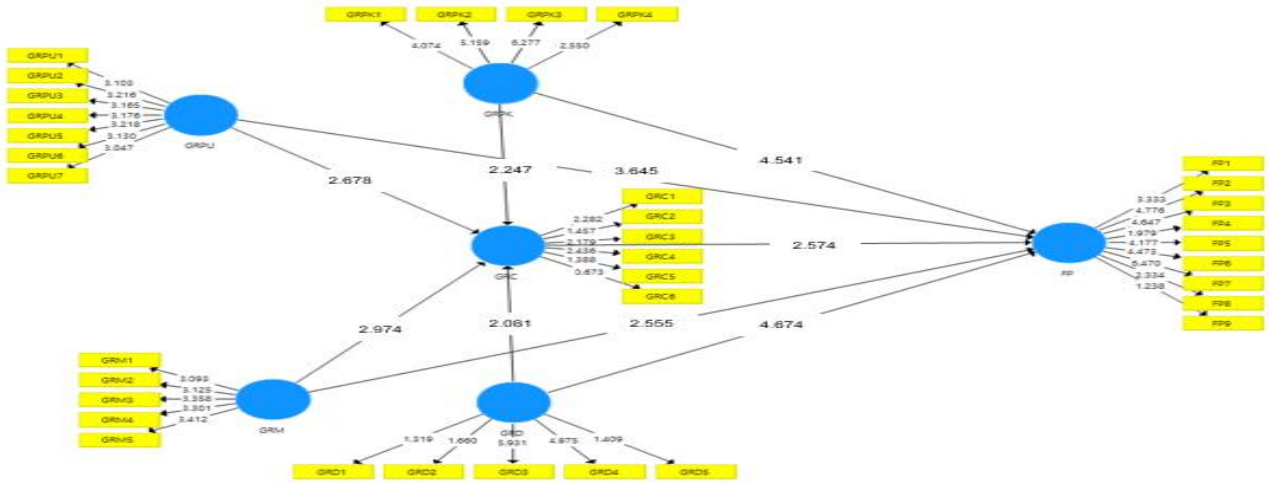
Table 3. Discriminate Validity-Forner Larker Criteria

	GRPU	GRM	GRD	GRPK	GRC	FP
GRPU	**0.863**					
GRM	0.645	**0.835**				
GRD	0.648	0.578	**0.803**			
GRPK	0.793	0.694	0.734	**0.835**		
GRC	0.682	0.735	0.645	0.674	**0.842**	
FP	0.537	0.684	0.797	0.733	0.533	**0.813**

Figure 3. Structural Model

4.3.1. Correlation matrix

Table 4 shows the results of correlation matrix, which is



used to test the issue of multicollinearity among variables. Results show that there is no any problem of multicollinearity in the data as the value of correlation among all variables are less than 0.5. the highest value of correlation is 0.265 which is in between GRM and GRPU, while the lowest value of correlation is 0.093 which is in between GRPK and GRM.

Table 4. Correlation Matrix

	GRPU	GRM	GRD	GRPK	GRC	FP
GRPU	**1**					
GRM	0.265	**1**				
GRD	0.137	0.254	**1**			
GRPK	0.243	0.093	0.287	**1**		
GRC	0.183	0.116	0.169	0.176	**1**	
FP	0.263	0.162	0.173	0.273	0.183	**1**

4.3.2. Path Analysis

Table 5 shows the results of path analysis. Results of panel A shows that all the dimensions of GRSC are having significant and positive influences on FP i.e., GRPU (0.6735), GRM (0.5834), GRPK (0.1933), GRD (0.6535) are significant at the level of 1%, 1%, 5% and 1% respectively. For instance, 1-unit increase in GRPU, GRM, GRPK and GRD tends to increase FP by 0.6735, 0.5834, 0.1933 and 0.6535 units respectively. Thus H_1, H_2, H_3 and H_4 is accepted. Results also shows that all the dimensions of GRSC are positively and significantly related with GRC i.e., GRPU (0.5839), GRM (0.4362), GRPK (0.4883), GRD (0.3845) are significant at the level of 1%, 5%, 5%, and 5% respectively. Particularly, 1-unit increase in GRPU, GRM, PRPK and GRD tends to increase 0.5839, 0.4362, 0.4883 and 0.3845 units in GRC respectively. So, H_5, H_6, H_7 is H_8 is also supported. Findings also depict positive association between GRC and FP at the level of 10%. Thus, H_9 is also accepted.

Results of panel B shows that GRC significantly mediates the relationship between three out of four dimensions of GRSC. Results of panel B shows that the entrance of GRC reduces the coefficient of GRPU, GRM, GRPK and GRD from 0.6735, 0.5834, 0.1933 and 0.6535 to 0.5274, 0.3467, 0.1836 and 0.5363 respectively. The coefficient of GRPU, GRM and GRD is still significant at the level of 5%, 5% and 10% respectively while the coefficient of GRPK become insignificant due the entrance of GRC in the model. Thus, H_{10}, H_{11}, H_{13} is also supported.

Table 5. Path Analysis

Panel A: Direct Effects				
Model	**Path**	**Beta**	**P-Values**	**Decision**
Model 1	GRPU → FP	0.6735	0.000 [a]	*SP*
Model 2	GRM → FP	0.5834	0.000 [a]	*SP*
Model 3	GRPK → FP	0.1933	0.047 [b]	*SP*
Model 4	GRD → FP	0.6535	0.000 [a]	*SP*
Model 5	GRPU → GRC	0.5839	0.000 [a]	*SP*
Model 6	GRM → GRC	0.4362	0.023 [b]	*SP*
Model 7	GRPK → GRC	0.4883	0.047 [b]	*SP*
Model 8	GRD → GRC	0.3845	0.034 [b]	*SP*
Model 9	GRC → FP	0.6234	0.072 [c]	*SP*
Panel B: Specific Indirect Effects				
Model 10	GRPU → GRC → FP	0.5274	0.043 [b]	*SP*
Model 11	GRM → GRC → FP	0.3467	0.024 [b]	*SP*
Model 12	GRPK → GRC → FP	0.1836	0.290	*NSP*
Model 13	GRD → GRC → FP	0.5363	0.072 [c]	*SP*
Note: "(a), (b) and (c) denote level od significance at 1%, 5% and 10%. SP: Supported, NSP: Not-supported."				

5. Discussion and Conclusion

Nowadays, environmental disputes are one of the main concern of researches. Therefore, the integration of environmental disputes and organizational performance have received huge attention from the business researchers. Different organizations, industries, companies and firms are the main reason behind these environmental disputes because companies extracted the raw material from the environment during their production process. Thus, environmental disputes i.e., deterioration of natural resources, and environmental pollution are the main factors behind the universal efforts to greening the supply chain (GRSC). GRSC positively affect the organizational performance and GRC creates the link between GRSC and FP. Therefore, present study examines the mediating role of GRC on the relationship between GRSC and FP by using four different dimensions of GRSC i.e., GRPU, GRM, GRPK and GRD. For this purpose, study collects the data from three polluting industries of Thailand, i.e., automobile, chemical and manufacturing industries. Data are collected through questionnaire survey by using three different methods i.e., through face to face surveys, through postal surveys and through email surveys. Study applies PLS_SEM for examining the empirical results. Measurement model used for testing the reliability and validity of the data, while structural model is used for testing the hypothesized relationship among variables. Finally, path analysis is conducted for examining the direct and indirect relationship among variables.

Results of the study showed the positive effect of all the dimensions of GRSC on FP. Results of the study are consistent with (Srivastava, 2007; Raghavendran et al, 2012; Sezen & Cankaya, 2013; Sari & Yanginlar, 2015;

Azevedo, Carvalho, &Machado, 2011). Further study finds that GRC significantly mediates the relationship between three out of four dimensions of GRSC i.e., relationship is mediated between GRPU, GRM, GRD and FP.

5.1 Implications of the Study

Present study also provides some implications: First, managers should provide the incentive to the employees who adapt GRSC practices. Second, manager of the firm should arrange some programs for their employees for motivating them to engage in GRSC practices. Third, firms should need to inaugurate closer relations with their suppliers.

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