Impact of corporate social responsibility on supply chain management and financial performance in Vietnamese garment and textile firms

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ABSTRACT

This study is conducted to investigate the impact of corporate social responsibility (CSR) on supply chain management (SCM) and financial performance, and the effect of SCM on financial performance through the mediate role of corporate reputation and customer loyalty. In addition, the study tests the moderate role of firm size and the ratio of export products in the relationship between SCM and financial performance. The research sample is 389 Vietnamese garment and textile firms by collecting through survey questionnaire. The results show that corporate social responsibility has a positive impact on SCM and financial performance and SCM has a positive impact on financial performance. However, firm reputation and customer loyalty do not have any mediate role in the relationship between SCM and financial performance. Firm size and export product ratio play a moderate role with statistical significance in the relationship between SCM and financial performance.

Keywords: Corporate social responsibility, Supply chain management, Financial performance, Garment and textile firms

1. Introduction

Supply chain management (SCM) is defined as a combination of different arrangements. SCM is an interacting process between various business entities related to production, procurement, processing and product marketing. Arrangements include the aspects of marketing, economics, logistics and organizational behavior (Brown, 2002). Large firms around the world have been exploring a new source of competitive advantage called SCM. SCM involves all integrated activities in delivering products to the market and make customers satisfied. The SCM program integrates activities such as purchasing, manufacturing, transportation and distributing products into the most unified programs. Therefore, successful SCM is to organize and combine all these activities into a unified procedure. SCM controls and links all partners in this chain. These partners are firms’ employees, suppliers, carriers, third-party firms and information system providers (Sweeney, 2007). Over the past decade, researchers have focused on the topics of SCM in businesses with research objectives that may be composed of
increasing values, lowering expenses or reducing time on responses from different stakeholders in the supply chain (Habib, 2011).

There has been a lot of debates about the relationship between SCM and financial performance. When pressures on competitiveness and market increase, the challenge for businesses is how to bring products and services to the right place at the right time and at the lowest cost. This has forced many manufacturing firms to consider their supply chains and identify weak connections that need to be solved. Each firm is one member of the global supply chain. Knowledge and practice of SCM has become an essential prerequisite to maintain competitiveness in the global business race and to increase profits. SCM is embedded in some important activities and in the overall business operations. The reality of the relationship between strategic suppliers, electronic data exchange, integrated logistics and inventory management are extremely important for the success of SCM in improving financial performance of manufacturing firms (Wagner et al., 2012).

For garment and textile firms, SCM is an area which plays a higher and higher strategic important role due to global competition and because the processing stages are often carried out in developing countries, the life cycle is short and the duration that the products stay in the supply chain is quite long (Skjøtt-Larsen et al., 2007). Managers have changed from competition between firms to competition between supply chains (Christopher, 2005). The ability to establish closely connected and long-term relationships with suppliers and other strategic partners has become an important determinant in creating competitive advantage. Because once firms have a good supply chain, it means that the expense for searching customers, suppliers will greatly be reduced and the “dead” time when goods stay in the supply chain will be reduced as well.

Different stakeholders including consumers, shareholders, non-governmental organizations, public agencies, unions and international firms have been increasingly concerned with environmental and social issues relating to international business. Concepts such as sustainability of the supply chain (Koplin et al., 2007), triple bottom line (Elkington, 1997), environmental management (Handfield et al., 1997), firms greening (Preuss, 2005), green supplier (Sarkis, 2003) and corporate social responsibility (CSR) in the supply chain (Maloni & Brown, 2006) have been receiving more and more attention from media, researchers and firms as well.

Vietnamese garment and textile firms play an important role in the development of the country’s economy, contribute about 15% to GDP and create jobs for nearly four million Vietnamese workers. In the global supply chain, Vietnamese garment and textile firms are mainly in the process of product processing. So the questions of the current situation of SCM of Vietnamese garment and textile firms are: how does it influence on financial performance of these firms, how do CSR activities affect the relationship between SCM and financial performance, etc.

2. Literature Review

2.1. Corporate social responsibility

In an overview study by Dahlsrud (2008), we found that there are 37 different definitions on corporate social responsibility (CSR). In those definitions, there is a big difference in awareness and definition about CSR. For example, Friedman (1970) argued that the only social responsibility of a firm is to increase its profits. In contrast, Davis (1973) said that CSR requires “to consider issues beyond the firm’s narrow economic, technical and legal requirements”, (cited in Crane & Glozer, 2016). These two definitions are completely opposite. According to Friedman (1970), a firm is only responsible for its shareholders, while Dess and Davis (1984) suggested that the firm should consider the benefits of not only shareholders but also other stakeholders. It is noticeable that EU Commission also proposed a definition of CSR. CSR is understood as the actions of higher firms and on their legal obligations to society and the environment (European Commission, 2011). The Committee's definition is consistent
with the CSR definition by Davis (1973) because it mentions the benefits of other stakeholders as well as shareholders.

It is not surprising that as there are many concepts of CSR. There are many significant differences in awareness on CSR between firms and managers (Lau et al., 2007). However, recent studies on CSR suggest that managers should focus on welfare for many stakeholders rather than on maximizing shareholders’ wealth (Becchetti et al., 2011). Stakeholders include groups or individuals who get benefits from or harm by the firm’s production activities. Barnett and Salomon (2006) summarized the benefits for a firm which has social responsibility as follows: (i) easier to attract resources; (ii) able to employ high quality workers; (iii) easier in product and service promotion; (iv) able to create unforeseen opportunities; and (5) possible to be an important source of competitive advantage. In the same way, Weber (2008) also identified five potential benefits of CSR for firms such as (i) positive impacts on image and reputation of the firm; (ii) positive influence on employees, Motivation, maintenance and staff recruitment; (iii) cost saving; (iv) revenue increase from higher sales and market share; (v) reducing risks related to CSR and (vi) increasing efficiency for SCM.

2.2. Supply chain management

Nearly 20 years ago, Stewart (1995) recognized the need of a shift from functional-oriented supply chains to integrated ones. Mentzer et al. (2001) showed an increase in proportion of the supply chain concept and the role of associated organizations in the supply chain. Although the unified and popular definition of the supply chain concept has not been introduced yet, but the definition by Mentzer et al. (2001), as a set of three or more entities (organizations or individuals) directly related to the products, services, finance, and/or information from supply source to customers has been used the most by many researchers.

With a change in the thought of SCM, questions about the interdependence of each part in the supply chain, about their responsibilities and influence are being raised. The change of thinking in this area of management and integration has brought about the awareness of the importance of connecting, integrating and cooperating among all the links in the supply chain. Supply chain is an important determinant in the process of delivering products and services to the final customers. When developing different concepts of SCM, it is necessary to pay attention to CSR because CSR is becoming a key factor for efficient supply chain operation.

2.3. The relationship between CSR and SCM

Applying the theories of stakeholders and sustainable development, the relationship between CSR and SCM has become the topic that takes priority in research in the field of production management, business management by experts (McWilliam et al., 2016). According to Carter and Roger (2008), a remarkable number of firms worldwide focus their resources and capabilities on supply chain efficiency, because they know that these efforts lead to good results (customer satisfaction, revenue rise and profits increase). SCM and CSR are interdependent variables in order to achieve benefits through organizations’ activities (Lee, 2008).

The growing concern regarding CSR, especially in terms of environment, has promoted research on environmental risk (Quarshie et al., 2016) and impact on the supply chain (Tate et al., 2009). Moreover, pressure from consumer determines the development of procedures in the supply chain. This means that reducing emissions or recycled products (Hahn, 2012), reducing waste and renewing the environment should be considered as priority (Clift, 2003). Today, in order to achieve unification, organizations with social responsibility are expanding CSR activities to include the management of their partners in the supply chain (Quarshie et al., 2016). Hence, we design the hypothesis as

\[ H_1: \text{CSR activities have a positive impact on SCM.} \]
2.4. Supply chain management and financial performance

There are many prior studies that confirm the relationship between superior SCM and financial performance (Ellram & Liu, 2002). Although, it is obvious that this link exists - organizations are estimated to provide up to 75% of the goods and services value from the supply chain (Trent, 2004) - according to experience, there is very little quantitative work following this link.

Although it is really difficult for connection between good practices of SCM and financial performance to be improved, the impact of poor SCM has been proved. Disruption of supply chain leads to a reduction in the value of short-term and long-term shareholders (Hendricks & Singhal, 2003), and lowers the sales growth, increases the expenses and reduces the current assets (Hendricks & Singhal, 2003). Roekel et al. (2002) discussed that through the supply chain, producers in developing countries and emerging economies can access market information and knowledge to enhance activities to increase value for them. Some important advantages of SCM are reducing product losses, increasing sales, reducing transaction costs, better controlling product quality and safety and distributing technology, capital and knowledge among partners in the chain, thereby increasing the financial performance of the business. Therefore, we propose the following hypothesis:

\[ H_2: \text{SCM positively influences financial performance.} \]

2.5. The mediate role of customer loyalty and firm reputation in the relationship between SCM and financial performance

According to Porter (1980), the two general competitive strategies are cost advantages and differences. Cost advantages are achieved through cost reduction, and the difference increases the profit by providing an increasing different levels of product and service. The level of added service can be shown by effective controlling of orders, product availability, on-time delivery, transparent information and the ability of responsiveness. SCM makes a difference through customer value created by premium services (Christopher & Peck, 2004). Moreover, there is a positive relationship between growing service levels and growing sales and customer retention (Yim et al., 2004). This indicates that improving supply chains must go parallel with the purpose of reducing costs without any negative impact on customer service or improving services without increasing costs. Initiatives to reduce organizational costs will also bring about a positive impact in terms of profits. Such initiatives include reducing the cost for selling goods by reducing the total cost for searching raw materials sources and by reducing costs for keeping inventory through improving inventory management (Stapleton et al., 2002). In addition, good SCM ensures the supply chain’s conditions helping the businesses increase their image and reputation in the marketplace. Schaltegger and Wagner (2017) and Kopnina and Blewitt (2018) found that promoting and applying sustainable practices in the supply chain have many benefits, such as improving the firm's image and increasing profits. These practices have become successful and important strategies for businesses. Moreover, when both large and small firms implement strategy focusing on sustainability and related SCM, the firm’s image is significantly improved (McWilliam et al., 2016). So the following hypothesis is given as:

\[ H_3: \text{Customer loyalty and firm reputation play a mediate role in the relationship between SCM and financial performance.} \]

2.6. Corporate social responsibility and financial performance

The relationship between CSR and financial performance has been investigated in many studies (Hasan et al., 2018). When businesses implement CSR to make customers satisfied and trust in the prestige of the businesses, then customers make repeated purchases and positive propaganda which leads to the increase in firms’ revenue and reduction of advertising and sales costs, thereby increasing financial performance (Gather, 2010). In addition, CSR activities increase the productivity of employees, employees work in better working environment, have opportunities for promotion, make commitment
to businesses and make higher productivity so reducing production costs, and increasing financial performance (Hasan et al., 2018). So the following hypothesis is proposed as:

\[ H_4: \text{CSR has positive effects on financial performance.} \]

3. Research Methodology

3.1. Background of Vietnam's garment and textile industry

The role of the garment and textile industry is particularly important in the economies of many countries in the context of international goods trade. Exports of garments and textiles products bring in a large amount of foreign currency to buy machinery and equipment, modernize production, which serve as a basis for the economy to grow up. Especially, this is obviously seen in Vietnam's economic development history. In Vietnam, today the garment and textile industry is contributing to the development of agriculture and rural areas through the growth of cotton, jute, silk production and is a means for economic structure shift from agricultural economy to industrial one. In the global supply chain of Vietnam garment and textile industry, we are in the stage of processing, therefore, in order to improve the added value, Vietnam garment and textile firms have to conduct SCM to minimize “death” time from production of garment and textile products to consumers. Moreover, the partners of Vietnamese garment and textile firms are mainly famous brands in the world such as Nike, HM, Zara. These firms have very high requirements on standards of CSR. Thus, CSR activities are “laissez-faire” for Vietnamese garment and textile firms to participate in the global garment and textile supply chain.

3.2. Research sample

The research sample is Vietnamese garment and textile firms listed in the “Vietnam Garment and Textile Directory” issued by the Vietnam Garment and Textile Association in 2018. We conducted random sample selection stratification by region as The North, the Central and the South; and by the firm size. 600 observations have been selected as a target model. The survey questionnaire has been sent by mail and post to 600 selected firms. Within 1 month, we called and reminded the firms to fill in the survey form. The respondents to the survey are directors, deputy directors, heads of CSR or answers which is the combination of the firm’s members’ answers. After 2 months, 536 survey forms were collected via email and post. Data classification and cleaning have been done, the remaining 389 questionnaires were valid to be included in the official analysis and model.

3.3. Research model

![Fig.1. Research model](image-url)
Corporate social responsibility (CSR) is the responsible activities of businesses to ensure the benefits of stakeholders and towards the sustainable development goals of firms. Indicators for measuring social responsibility include 39 indicators developed from the study of Mirsha and Suar (2010). Contents measured are CSR policies/activities of firms in the last 5 years according to 5-point Likert scales. ‘it is not in the firm code’ (=1), ‘it is in the firm code but not implemented’ (=2), ‘it is in the firm code but partially implemented’ (=3), ‘it is in the firm code and substantially implemented’ (=4), and ‘it is in the firm code and fully implemented’ (=5).

Supply chain management (SCM): To measure this variable, the analysis focuses on the benefits that SCM provides to the interest groups of firms. Based on theories of stakeholders and sustainable development, in the questionnaire, managers are asked to give answers to four questions about the importance of SCM results in CSR practice developed by the firm in the past two years, using the five-point Likert scales with 1 = Nothing important and 5 = Very important. These questions have been developed in consultation with Hofmann et al. (2014) and Hervani et al. (2005).

Customer loyalty (CL) and corporate reputation (CR): the consequences of CSR and SCM implementation in Vietnamese garment and textile firms. These two observed variables are measured by a 5-point Likert scales from 1= Strongly disagree to 5 = Strongly agree. Customer loyalty is measured by three attributes developed from research of Sabara et al. (2019). Corporate reputation (or firm reputation) is measured by 5 attributes developed from the studies conducted by Galbreath (2010), and Nguyen (2012).

Financial performance (FP): FP shows the financial situation of the firm evaluated in the last 3 years compared to the level of industry’s average according to 5-point Likert scales with 1 = Much lower than the industry average and 5 = Much higher than the industry average. The research sample is Vietnamese garment and textile firms which are members of the Garment and Textile and Association, as the Association sends annually industry average value reports, the firms are possibly to be compared with the industry average. The 3-year timeline is chosen because the effects of CSR and SCM are often assessed with a latency of time being taken into consideration, so the criteria for CSR evaluation is five years and for financial performance is three years. In order to measure financial performance, evaluation is carried out basing on 10 criteria under 2 dimensions of (i) profitability, and (ii) growth rate. The criteria of market value is not used because most of Vietnamese garment and textile firms are unlisted, assessing the market aspect is not appropriate. The proportion of export products and firm size are two moderate variables in the research model. The moderate role of these two variables is studied in the relationship between SCM and financial performance.

3.4. Analysis methods

To conduct analysis and test hypotheses, SPSS 22 and Smart PLS 3.0 software are used to evaluate the validity of appropriateness, value and measure research models as well as to test the hypotheses.

Structural equation model is one of the most accepted techniques in social science. The variables in the research model include CSR variable as the second - order - factor variable and the financial performance variable as the second - order - factor variable so it is not suitable to use CB - SEM (Amos) but to employ PLS - SEM (Smart PLS) (Hair et al., 2014). Therefore, we employ PLS SEM to analyze data. Analysis techniques is divided into three main parts. In part one, we entered the Excel data into SPSS 22 software to test the scale reliability. For scales with Cronbach’s Alpha < 0.6 and total variable correlation coefficient < 0.3, they are removed from the research model. As a results, 11 scales of CSR variables are removed at this stage, the remaining scales are satisfactory to carry out the next analysis. Part two is based on an external model assessment, in which composite reliability and validity have been tested. The third part is based on an internal model assessment, in which hypotheses are tested (Ul-Hameed et al., 2019). The second part is required to conduct an internal model assessment. Convergence values and discriminant values are tested in the second test. Convergence values are checked through overall reliability, factor load and average variance extracted (AVE). If the value of
the load factor for each item must be greater than 0.4 (Hair et al., 2010), the composite reliability must be greater than 0.7 and the average variance extracted (AVE) must not be less than 0.5. Before testing the hypothesis, the reliability and validity of the data were carefully checked. These steps are done with Smart PLS 3.0. Then PLS and Bootstrap analysis are employed to test the hypothesis.

4. Results and Discussion

The results of composite reliability analysis is as follows:

Table 1
Construct Reliability and Validity

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach's Alpha</th>
<th>rho_A</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL</td>
<td>0.838</td>
<td>0.843</td>
<td>0.839</td>
<td>0.635</td>
</tr>
<tr>
<td>CR</td>
<td>0.945</td>
<td>0.945</td>
<td>0.945</td>
<td>0.774</td>
</tr>
<tr>
<td>CSR</td>
<td>0.982</td>
<td>0.983</td>
<td>0.982</td>
<td>0.665</td>
</tr>
<tr>
<td>CSR_Com</td>
<td>0.911</td>
<td>0.911</td>
<td>0.911</td>
<td>0.672</td>
</tr>
<tr>
<td>CSR_Custo</td>
<td>0.872</td>
<td>0.872</td>
<td>0.872</td>
<td>0.694</td>
</tr>
<tr>
<td>CSR_E</td>
<td>0.910</td>
<td>0.911</td>
<td>0.910</td>
<td>0.629</td>
</tr>
<tr>
<td>CSR_Envir</td>
<td>0.928</td>
<td>0.928</td>
<td>0.928</td>
<td>0.682</td>
</tr>
<tr>
<td>CSR_Invert</td>
<td>0.898</td>
<td>0.898</td>
<td>0.898</td>
<td>0.638</td>
</tr>
<tr>
<td>CSR_Supl</td>
<td>0.872</td>
<td>0.872</td>
<td>0.872</td>
<td>0.695</td>
</tr>
<tr>
<td>FP</td>
<td>0.947</td>
<td>0.950</td>
<td>0.948</td>
<td>0.648</td>
</tr>
<tr>
<td>FP_G</td>
<td>0.916</td>
<td>0.917</td>
<td>0.916</td>
<td>0.687</td>
</tr>
<tr>
<td>FP_P</td>
<td>0.867</td>
<td>0.874</td>
<td>0.868</td>
<td>0.571</td>
</tr>
<tr>
<td>SCM</td>
<td>0.932</td>
<td>0.933</td>
<td>0.932</td>
<td>0.775</td>
</tr>
</tbody>
</table>

The above results show that all variables make sure the composite reliability and are eligible to carry out the next analysis.

Table 2
Discriminant Validity Fornell-Larcker Criterion

<table>
<thead>
<tr>
<th>Construct</th>
<th>CL</th>
<th>CR</th>
<th>CSR</th>
<th>CSR_Com</th>
<th>CSR_Custo</th>
<th>CSR_E</th>
<th>CSR_Envir</th>
<th>CSR_Invert</th>
<th>CSR_Supl</th>
<th>FP</th>
<th>FP_G</th>
<th>FP_P</th>
<th>SCM</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL</td>
<td>0.797</td>
<td>0.880</td>
<td>0.816</td>
<td>0.820</td>
<td>0.833</td>
<td>0.793</td>
<td>0.826</td>
<td>0.833</td>
<td>0.805</td>
<td>0.829</td>
<td>0.755</td>
<td>0.881</td>
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</tr>
<tr>
<td>CR</td>
<td>0.359</td>
<td>0.392</td>
<td>0.325</td>
<td>0.321</td>
<td>0.351</td>
<td>0.299</td>
<td>0.351</td>
<td>0.351</td>
<td>0.351</td>
<td>0.351</td>
<td>0.351</td>
<td>0.351</td>
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</tr>
<tr>
<td>CSR</td>
<td>0.206</td>
<td>0.180</td>
<td>0.172</td>
<td>0.204</td>
<td>0.169</td>
<td>0.151</td>
<td>0.155</td>
<td>0.151</td>
<td>0.337</td>
<td>0.308</td>
<td>0.337</td>
<td>0.337</td>
<td></td>
</tr>
<tr>
<td>CSR_Com</td>
<td>0.184</td>
<td>0.164</td>
<td>0.176</td>
<td>0.204</td>
<td>0.169</td>
<td>0.193</td>
<td>0.156</td>
<td>0.156</td>
<td>0.337</td>
<td>0.308</td>
<td>0.337</td>
<td>0.337</td>
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<tr>
<td>CSR_Custo</td>
<td>0.221</td>
<td>0.169</td>
<td>0.011</td>
<td>0.267</td>
<td>0.011</td>
<td>0.010</td>
<td>0.016</td>
<td>0.016</td>
<td>0.337</td>
<td>0.308</td>
<td>0.337</td>
<td>0.337</td>
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<tr>
<td>CSR_E</td>
<td>0.197</td>
<td>0.172</td>
<td>0.040</td>
<td>0.020</td>
<td>0.014</td>
<td>0.002</td>
<td>0.020</td>
<td>0.020</td>
<td>0.337</td>
<td>0.308</td>
<td>0.337</td>
<td>0.337</td>
<td></td>
</tr>
<tr>
<td>CSR_Envir</td>
<td>0.222</td>
<td>0.204</td>
<td>0.016</td>
<td>0.288</td>
<td>0.016</td>
<td>0.010</td>
<td>0.040</td>
<td>0.040</td>
<td>0.337</td>
<td>0.308</td>
<td>0.337</td>
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</tr>
<tr>
<td>CSR_Invert</td>
<td>0.240</td>
<td>0.193</td>
<td>0.036</td>
<td>0.010</td>
<td>0.010</td>
<td>0.022</td>
<td>0.049</td>
<td>0.049</td>
<td>0.337</td>
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<td>0.337</td>
<td>0.337</td>
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</tr>
<tr>
<td>CSR_Supl</td>
<td>0.151</td>
<td>0.155</td>
<td>0.584</td>
<td>0.689</td>
<td>0.537</td>
<td>0.393</td>
<td>0.332</td>
<td>0.328</td>
<td>0.337</td>
<td>0.308</td>
<td>0.337</td>
<td>0.337</td>
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</tr>
<tr>
<td>FP</td>
<td>0.337</td>
<td>0.379</td>
<td>0.331</td>
<td>0.328</td>
<td>0.313</td>
<td>0.313</td>
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<td>0.313</td>
<td>0.337</td>
<td>0.308</td>
<td>0.337</td>
<td>0.337</td>
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</tr>
<tr>
<td>FP_G</td>
<td>0.350</td>
<td>0.365</td>
<td>0.319</td>
<td>0.313</td>
<td>0.305</td>
<td>0.305</td>
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<td>0.337</td>
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<tr>
<td>FP_P</td>
<td>0.358</td>
<td>0.408</td>
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<td>0.337</td>
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<tr>
<td>SCM</td>
<td>0.236</td>
<td>0.273</td>
<td>0.596</td>
<td>0.573</td>
<td>0.596</td>
<td>0.600</td>
<td>0.600</td>
<td>0.600</td>
<td>0.337</td>
<td>0.308</td>
<td>0.337</td>
<td>0.337</td>
<td></td>
</tr>
</tbody>
</table>

Since all VIF multicollinearity measurement parameters are <5 therefore the variables do not have multicollinearity and satisfy the next analysis. Next, the relevance of the research model is evaluated through research data.

Table 3
Model fit

<table>
<thead>
<tr>
<th>Metric</th>
<th>Saturated Model</th>
<th>Estimated Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRMR</td>
<td>0.046</td>
<td>0.068</td>
</tr>
<tr>
<td>d ULS</td>
<td>2.929</td>
<td>7.201</td>
</tr>
<tr>
<td>d G1</td>
<td>3.058</td>
<td>3.099</td>
</tr>
<tr>
<td>d G2</td>
<td>2.382</td>
<td>2.521</td>
</tr>
<tr>
<td>Chi-Square</td>
<td>4,460.68</td>
<td>4,620.89</td>
</tr>
<tr>
<td>NFI</td>
<td>0.885</td>
<td>0.889</td>
</tr>
</tbody>
</table>
The results show that the research model is consistent with the research data. Therefore, the research model is suitable for analyzing and applying to the overall garment and textile firms in Vietnam. After completing the basic assumptions of PLS-SEM, bootstrapping is executed. This technique has been implemented to test the hypotheses. The results of bootstrapping PLS show that all hypotheses are accepted because t-value > 1.96 and P-value < 0.05. Details are as below:

![Fig.2. Bootstrap result (Smart PLS out)](image)

From the above results, CSR activities have strong effect on SCM with a strong impact level of 0.570 with the significance level of 1%. This means that if Vietnamese garment and textile firms carry out good CSR implementation, it brings about the efficiency of SCM as a foundation to enhance the firms’ financial performance. In the research model, CSR still has a positive direct impact on financial performance but at the weak impact level of only 0.116 with the significance level of 1%. At the same time, SCM activities have a medium impact to financial performance at an impact level of 0.227 with a significance level of 1%. Thus, the hypotheses H1, H2, H4 are supported, the results of testing hypothesis summarized in Table 4 are as follows:

**Table 4**

<table>
<thead>
<tr>
<th>Hypothesis test results</th>
<th>Original Sample (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics (O/STDEV)</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL → FP</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>12.736</td>
<td>0.000</td>
</tr>
<tr>
<td>CR → FP</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>39.091</td>
<td>0.000</td>
</tr>
<tr>
<td>CSR → FP</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>28.025</td>
<td>0.000</td>
</tr>
<tr>
<td>CSR → SCM</td>
<td>0.570</td>
<td>0.571</td>
<td>0.045</td>
<td>12.736</td>
<td>0.000</td>
</tr>
<tr>
<td>SCM → CL</td>
<td>0.209</td>
<td>0.210</td>
<td>0.052</td>
<td>4.042</td>
<td>0.000</td>
</tr>
<tr>
<td>SCM → CR</td>
<td>0.256</td>
<td>0.258</td>
<td>0.044</td>
<td>5.854</td>
<td>0.000</td>
</tr>
<tr>
<td>SCM → FP</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>24.835</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Table 4 illustrates that hypotheses H1, H2, H3 are supported, meaning that CSR and SCM activities have a positive impact on the financial performance of Vietnamese garment and textile firms. In order to test hypothesis H3, we have conducted an assessment in 4 steps according to the guidance of Hair et al. (2014). First, we assess the direct impact of SCM on financial performance.

![Fig. 3. Direct impact of SCM on financial performance](image)

![Fig. 4. Results of testing mediate role of customer loyalty, corporate reputation](image)

Fig. 3 shows that the direct impact of SCM on financial performance is very strong at the impact level of 0.471 with significance level of 1%. It satisfies the condition to test the mediate role of two mediate variables CL and CR. The results of the mediate role test are as below:

Fig. 4 reveals that customer loyalty and firm reputation both have positive and statistically significant impacts on financial performance. Therefore, it is eligible to be used in the mediate role verification. However, in the mediate role testing model, SCM still has a direct positive impact on financial performance, so customer loyalty and firm reputation do not have a mediate role in the relationship between SCM and financial performance. SCM still has a direct impact on financial performance, for example, SCM activities reduce transportation expenses and directly increase financial performance. So, hypothesis H3 is rejected.

Next, the moderate role of enterprise size and the proportion of export product are tested as below:

![Fig. 5. Results on moderate role of size and export](image)

The data in Fig. 5 show that the proportion of export products and firm size have statistically significant moderate role with the impact of size of 0.209 and the export of 0.256 with the same level of significance at 1%. From the impact factor above, the moderate effects are modernized as below:

Fig. 6 illustrates that the more the firms export, the stronger the SCM influences the financial performance. In contrast, for domestic consumption firms, SCM activities are not very rigid, so these activities have almost no impact on the financial performance of these garment and textile firms. The
moderate role of firm size is quite interesting, as for larger firms, SCM activities have a strong impact on financial performance, whereas for smaller firms, the more CSR-oriented SCM is, the worse financial performance becomes.

Fig. 6. Moderate effects result of size and export

5. Conclusion

SCM is an important topic for all firms in the context of international integration today. This study visualized the impact of CSR on SCM; the impact of SCM on financial performance and the impact of CSR on financial performance; test the mediate role of customer loyalty, firm reputation and verify the moderate role of size and export. The results show that CSR has a positive impact on SCM, which is the same result as the research result by Valdez-Juárez et al. (2018). A positive impact of SCM on financial performance has also been confirmed as found by Mira et al. (2018), Sabara et al. (2018), Naway and Rahmat (2018), Setyadi (2018), Hadrawi (2018). At the same time, CSR also has a positive impact on financial performance, this supports the theory of stakeholders and sustainable development and the viewpoint of Hasan et al. (2018) as well. Therefore, Vietnamese garment and textile and garment firms should be confident in implementing CSR and SCM to get better financial performance in the future. However, with the results of testing moderate role of firm size, the large-scale garment and textile firms should pay more attention to the implementation of SCM because the more SCM implementation is executed, the better the financial performance. However, with smaller firms, SCM activities are still new ones, because of the lack of knowledge on SCM, the more the implementation of SCM, the worse the financial performance in the context of developing countries like Vietnam. In addition, the higher export products, the more SCM implementation and the better financial performance. Large firms, often involved in global supply chains, are the world's processing firms. Therefore, in order to improve the added value in the production process, firms need good management on the supply chain for better efficiency. However, for domestic consumption firms, the impact of SCM on financial performance is quite faint.

References


European Commission (2011). *Communication from the commission to the European Parliament, the council, the European economic and social committee and the committee of the regions*. Brussels.


