ORGANIZATIONAL PRESSURES BEHIND SUSTAINABILITY PERFORMANCE IN BANGLADESHI READYMADE GARMENTS INDUSTRY: THE EFFECTS OF SUSTAINABILITY MANAGEMENT SYSTEM, ORGANIZATIONAL DYNAMIC CAPABILITIES AND RESOURCE COMMITMENT

ABSTRACT

The Bangladeshi Readymade Garment (RMG) industry has been severely criticized for its harmful impact on the environment, workplace safety and human rights conditions. These impacts create a highly negative image of RMG companies in the global market, one which hinders their present, as well as their future market opportunities. In recent times, they have started to develop and adopt various innovative sustainability strategies in the wake of cut-throat competition in the global market. These strategies are helping organizations to improve their reputation by enhancing economic prosperity, environmental protection and social progression. There exists a limited number of studies that empirically investigate how the adoption of such strategies assist the organizations to become more sustainable. To explore this issue, this study proposes a conceptual model grounded in the Resource-Based View Theory (RBVT) and Dynamic Capability View (DCV). This study seeks to explore how the relationship between Organizational Pressure (OPs) and Sustainability Performance (SP) is mediated by the Sustainability Management System (SMS) and organizational Dynamic Capabilities (DCs). This study further explores the moderating effect of Resource Commitment (RC) on SMS and DCs in order to explain the relations between OPs and SP. To test the proposed relationships in the conceptual model, a large-scale questionnaire survey will be conducted among the Bangladeshi RMG companies. Structural Equation Modelling (SEM) will be used to assess the impacts of the mediating and moderating effects between OPs and SP.

Key words: Sustainability; Pressures; Performance; Management System; Dynamic Capability; Resource Commitment

INTRODUCTION

Given the gradual contamination of natural resources and widening income inequality, the issue of sustainability has come to the forefront of discussion amongst several stakeholder groups, as well as various sectors of government, non-government organizations (NGOs) and business. Considerable pressure has mounted on business organizations to operate their businesses in a sustainable manner (Schoggl et al. 2016; Delmas and Toffel, 2008; Sarkis et al., 2010; Yu and Ramanathan, 2015). Traditionally, organizations have been reluctant to incorporate sustainability concerns into their corporate policies and processes, owing to the fear that meeting environmental and social welfare requirements would lead to increased costs, thereby jeopardizing their economic sustainability (Florida, 1996; Found, 2009; Khor, 2011; Wilson, 2010). However, as business is considered as part of both the problem and the solution to the challenge of ‘sustainability’ (de Larderel Aloisi, 2009), the United Nations World Summit on Sustainable Development (2002) voiced the need for business organizations to achieve the goal of a sustainable society through sustainable business practices (SBPs) (Naeem and Welford, 2009).

The moral imperative behind the ‘sustainability’ concept implies an inclusive process whereby natural and other resources at the present time are supposed to be shared in such a way that both present and future generations can meet their needs without exceeding current and future ecological capacity (WECD Report, 1987). Frequent examples of environmental degradation (e.g. IPCC, 2001, 2007, and 2014) and acute inequalities in wealth distribution across the world have made one thing clear: sustainability as a concept will not be easily adopted by the business sector, as its achievement creates serious ethical and practical challenges. The concept is grounded not only in an ethical commitment to the wellbeing of contemporary populations and the environment, but also in the well-being and enhanced opportunities for future generations and the environment (Kibert, 2012).
As a response to these inevitable internal and external pressures from various stakeholders (Freeman, 1984), companies have started to improve their competitive posture by developing various strategies and inimitable organizational dynamic capabilities (Rueda-Manzanares et al., 2008). A firm that has higher capability to utilize its scarce resources to achieve the desired outcomes is more likely to achieve higher performance (Eisenhardt and Martin, 2000; Teece et al., 1997). Such unique capabilities often include superior knowledge of the market, customers, and supply-chain networks that is imperative when designing and implementing unique sustainable processes and products (Yu et al 2017). If a firm lacks fundamental skills to identify sustainable solutions according to market demand, then external pressure may have a limited influence on a firm’s performance (Foulon et al., 2002). Furthermore, a firm should dedicate necessary resources when developing such strategies and capabilities effectively (Lenox and King, 2004; Sarkis et al., 2010). Without required resource commitment, firms may fail to deliver satisfactory outcomes and seek rather to meet the demands of stakeholders with superficial responses (Simpson, 2012). Besides the dynamic capabilities, organizations also need an integrated management system to manage and monitor sustainability policies and practices. In summary, to generate win-win solutions that promote economic, environmental and social benefits, firms have begun to place a heavy emphasis on forming dedicated management systems and developing organizational capabilities to improve their sustainability performance.

There exist several research gaps in the literature, and this study will seek to explore them. Firstly, whilst the concept of ‘sustainability’ calls for a convergence between the three overlapping aspects: economic development; social equity; and environmental protection; sustainability has over the past few years often been compartmentalized exclusively as an environmental issue (IISD, 2010). Along with business front-groups, some academic disciplines are also responsible for compartmentalizing the concept of ‘sustainability’ within environmentally-friendly business practices and its impact on a firm’s environmental and financial performance (Sarkis et al., 2010; Li, 2014; Simpson 2012; Severo et al 2017). This study will examine the underlying concept of sustainability performance in a holistic way by incorporating all three dimensions. Secondly, a limited number of studies of the literature reviewed sustainability management by using systems thinking as a theoretical lens (Emilsson and Hjelm, 2009; Sealy et al. 2010; Williams et al. 2017) Most of the literature has mainly focused on traditional management theories, such as the resource-based view, contingency theory, competitive strategy or institutional theory (Bansal and Gao, 2006; Berchicci and King, 2007; Etzion, 2007; Russo and Minto, 2012; Williams et al 2017). This study will contribute to existing literature by proposing a holistic sustainability management system which will streamline organizations’ decision-making processes regarding sustainability by providing more tangible, precise and measurable solutions (Esquer-Peralta et al 2008). Furthermore, there is a dearth of empirical studies investigating the role of dynamic capabilities in enhancing a firm’s sustainability performance. There are some studies which explore the mediating and moderating role of learning capability, marketing capability, integration capability and innovation capability in improving a firm’s environmental and financial performance to a considerable extent (Yu et al. 2017; Sarkis et al 2010; Eliadat et al 2008; Li 2014). This study will test and validate the view that there exists a distinctive set of DCs which can act as a mediator to improve overall sustainability performance. Lastly, the proposed conceptual model will be tested within the RMG industry of Bangladesh, because a review of previous studies shows that RMG companies have been mostly excluded from the sustainability-performance-related research field. This lack of research takes on special significance because of the RMG sector’s distinct social, environmental and economic influence on developing countries. No known comprehensive study has so far been undertaken to test the mediating role of SMS and DCs to improve sustainability performances within the context of developing countries in general and Bangladesh in particular. Specifically, this study will propose a conceptual model to address the following research questions:

(1) What are the effects of (internal/external) organizational pressures on firms’ sustainability performance?
(2) Can the development of a Sustainability Management System (SMS) and organizational Dynamic Capability (DC) really bring benefits to a firm’s sustainability performance?
(3) Does the resource commitment moderates the relationship between SMS (or DC) and sustainability performance?
This paper is organized as follows: Following this introduction, Section 2 discusses the theoretical background and the relevant literature is reviewed to develop the conceptual model and corresponding hypotheses. Section 3 describes the research method, and Section 4 presents the detailed plan of data analysis techniques. Finally, Section 5 concludes with a summary of the study.

**CONCEPTUAL MODEL AND RESEARCH HYPOTHESES DEVELOPMENT**

Based on current literature and the findings of relevant reports, a conceptual model and corresponding theoretical constructs and hypotheses were developed. The proposed conceptual model shown in Fig. 1. encapsulates the impact of the organizational pressure on the firm’s sustainability performance (economic, environmental and social). Furthermore, the conceptual model takes into account the mediating effects of both SMS and DC on the relationships between the pressures and sustainability performances. In addition, the moderating effect of organizational resource commitment has also been incorporated into the proposed model.

![Conceptual Model](image)

**Figure 1 Conceptual Model**

1. **Theoretical Underpinning**

The existing literature on sustainability, adoption of sustainable business practices, strategies and performance management are discussed with reference to three dimensions - economic, environment and social. A number of organizational theories from the social sciences have been used to analyse this holistic view of sustainability, such as: resource-based theory (RBT); transaction cost theory; dynamic capabilities; knowledge-based view; institutional theory; stakeholder theory; resource dependence theory and organizational learning etc. (Choi and Wacker, 2011; Hitt, 2011; DiMaggio and Powell, 1983; Freeman, 1984; Hitt et al. 2016).

According to RBT, by accumulating and integrating a rare, valuable, inimitable, and non-substitutable (VRIN) set of resources, firms can create sustainable competitive advantages (Barney, 1991; Sirmon et al., 2011). These resources include “all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness” (Barney, 1991: 101). Moreover, RBT also predicts that appropriate deployment of these VRIN resources will have a positive impact on a firm’s performance if managed effectively (Ray et al., 2005; Sohel and Schroeder, 2003). There are several studies grounded on RBT which explore how
firms have been implementing innovative value-creating strategies by using these VRIN resources to achieve improved sustainability performance (Wiklund and Shepherd 2003; Darnall and Edwards, 2006; Aragon and Sharma, 2003; Bowen 2007). Therefore, the RBT view of performance management helps us to understand how firms achieve effective performance outcomes with high efficiency by properly managing and utilizing these VRIN resources (Hitt et al., 2016). Some researchers defined Dynamic Capability View (DCV) which is an extension of RBVT to dynamic or highly unpredictable markets (Eisenhardt and Martin, 2000; Teece et al., 1997). The DCV suggests that a firm needs to develop new dynamic capabilities to identify and respond to opportunities in increasingly volatile markets for pursuing long term competitive advantage (Jarvenpaa and Leidner, 1998).

This study investigates how firms are tackling the accelerating pressures from external and internal sources in order to improve sustainability parameters by developing value-creating strategies. This study proposes two strategies which will be tested as mediators to determine whether these tactics help organizations to sustain competitive advantages in terms of sustainability performance. Firstly, this study suggests that development of an integrated system like SMS will help organizations to plan, implement, manage and monitor their sustainability parameters. This will not only enhance their firm’s sustainability image in the market, but also improve sustainability performance indicators. Secondly, this study also suggests that development of a distinctive set of DCs will support the firms to gain long-lasting sustainable competitive returns. Furthermore, organizational resource commitments are considered as a moderator in this study, and will provide necessary resource support (e.g. financial, human, technological and infrastructural) in developing this strategies (SMS and DCs). While recent research has confirmed the importance of SMS and DCs in gaining a firm’s competitive advantage (Mustapha et al., 2017, Panagiotakopoulos et al., 2016; Sealy et al., 2010; Mousavi and Bossink, 2017; Hong et al 2017), little has been done to examine such strategies’ mediating and moderating effects on performance. The present study bridges this research gap by exploring those mediating and moderating roles, using the RBVT and DCV as a theoretical lens.

ii. Hypotheses Development

a. Mediating effect of Sustainability Management System

The theory behind sustainable development demands the integration of economic prosperity, environmental protection and social advancement (Benn and Bolton, 2011). Amongst these three underlying concepts of sustainability, the firm’s economic performance is always companies’ key concern. On the other hand, the organizations are also well aware that a firm’s environmental and social performance has a significant impact on its financial performance. Some researchers argue that superior environmental performance can lead to better financial performance by improving firms’ market share and profit margin through enhanced environmental reputation and by offering differentiated products (Klassen and McLaughlin, 1996; Jacobs et al., 2010). Moreover, by reducing waste, energy and emissions as well as re-using materials, it contributes to cost reduction. On the other hand, socially responsible practices, if strategically managed, will add value, sustainability and competitiveness to the company (Neubaum and Zahra, 2006; Porter and Kramer, 2002; Jensen, 2001) and foster its financial performance (Bohas and Poussing, 2016; Boesso et al., 2013; Carroll and Shabana, 2010; Freeman 1984).

The literature has identified a number of potential external and internal groups that exert pressures on companies to adopt SBPs to improve their sustainability performance (Marshall et al., 2005; Chahal and Sharma, 2006). In previous studies, commonly listed internal pressures behind SBPs adoption include pressure from the internal stakeholders (e.g. employees, investors, shareholders, top-level management), pressures due to organizational moral or ethical commitments, pressure to enhance firm/brand image, competitive advantage, and pressure to improve the company image in order to capture better market opportunities (Haigh and Jones, 2006; Sarkis 2001; Roberts 2003; Darnall et al. 2008; Seuring and Muller 2008). Three additional main drivers from an economic perspective are cost reduction, greater efficiency and increased profits (Berry and Rondinelli, 1998; Bhaskaran et al., 2006 and Porter and van der Linde, 1995). On the other
hand, external pressures include customers’ demands for green products (Nilakantan, 2013), pressures from buyers, suppliers, government agencies, labour rights organizations, community groups, NGOs, and competitors, and compliance with regulations (Diabat et al., 2014). According to De Brito et al. (2008), organizations initially became involved in sustainability because of pressures from legislation and regulations, but they subsequently realized that sustainability could provide a competitive advantage that would enhance their market value. These pressures motivate firms to incorporate innovative sustainability practices into their management policies and strategies (Sarkis et al., 2010).

In recent times, increased awareness of sustainable development has encouraged organizations to develop policies and strategies for managing the social, environmental and economic impacts of their business activities. A recent survey about sustainability conducted by Accenture and UN Global Compact discovered that more than 80% of CEOs, as compared to just 50% in 2007, considered that it is now crucial that sustainability issues are fully embedded into the strategy and operations of their companies (Mertins and Orth, 2012). However, the unavailability of proper guidelines means that organizations are facing several challenges in developing such strategies when seeking to integrate sustainability into their management and operations. To cope with these challenges efficiently organizations need an appropriate management system (MS) capable of highlighting the key issues around sustainability standards and related management functions (Panagiotakopoulos et al., 2016).

According to Noble (2000, p. 4), a “management system is best viewed as an organizing framework that should be continually monitored and periodically reviewed. It provides effective direction for an organization’s process-management activities in response to changing internal and external factors.” The current trend towards developing a single integrated MS along with the increased awareness of sustainable development (SD) has encouraged organizations to develop the concept of sustainability management systems (SMS) (Sealy et al 2010; Maas and Reniers, 2014; Ranangen and Zobel, 2014). E’iegis and Gineteiine” (2004) further argue that such SMS will help to implement, manage and monitor the production of goods in all three dimensions of sustainability by ensuring planning, reporting, corporate social responsibility and proficiency. Even though there are numerous systems for managing sustainability issues (environment, quality, health and safety etc.), organizations will gain enhanced benefit if they adopt an integrated system which will help them in identifying solutions for environmental and social problems by means of a holistic approach to sustainability issues (Smith, 2001; Garner and Keoleian, 1995).

Typically organizations use a management system structure that has a plan-do-check-act (PDCA) focus, such as ISO 9001 (quality management), ISO 14001 (environmental management), and OHSAS 18001 (occupational health and safety) (Pojasek, 2012). Some researchers argue that adopting different types of the currently available standalone management systems would not ensure overall sustainability (Darnall et al. 2008). Therefore, a systematic, integrated and efficient approach such as SMS is necessary for collecting, monitoring, analysing and managing information and resources. This will not only lead to organisational sustainability, but also have the potential to save resources, remove the need for significant redundancies, and promote cleaner production (Mustapha et al 2017). The aim of such an SMS is to develop a sustainability policy to guide managerial decision-making on different sustainability issues by setting annual targets for different sustainability parameters (e.g. raw materials, water, waste, energy). Other responsibilities of SMS include: creating awareness about sustainability; identifying the training needs of each employees in sustainability issues; measuring; monitoring sustainability performance indicators; encouraging and rewarding employees for suggesting and/or implementing innovative sustainability practices; disclosing sustainability performance information in the company website/stand-alone sustainability report/ annual reports; and proposing improvement measures for future improvement. From the above-mentioned roles and responsibilities of the SMS, it is clear that an efficient SMS will positively mediate the sustainability performance. Hence, we offer the following hypotheses.

H1a: SMS mediates the relationships between internal organizational pressures and economic performance.
H1b: SMS mediates the relationships between internal organizational pressures and environmental performance.

H1c: SMS mediates the relationships between internal organizational pressures and social performance.

H2a: SMS mediates the relationships between external organizational pressures and economic performance.

H2b: SMS mediates the relationships between external organizational pressures and environmental performance.

H2c: SMS mediates the relationships between external organizational pressures and social performance.

b. Mediating effect of Organizational Dynamic Capability

The concept of Dynamic Capability (DCs) was first proposed by Teece et al. (1997) as “The firm's processes that use resources specifically, the processes to integrate, reconfigure; gain and release resources to match and even create market change.” Helfat et al. (2009) define DCs as “the capacity of an organization to purposefully create, extend, or modify its resource base”. In previous studies DCs is also defined as a set of well-defined organizational and strategic processes for developing product which are used to integrate the firms' various abilities and functional backgrounds to maximize firms' revenue in boosting their competitive advantage over other competitors (Clark and Fujimoto, 1991; Dougherty, 1992; Helfat and Raubitschek, 2000).

According to Ambrosini and Bowman (2009), DCs is a process of developing the most adequate resource base of the firm which positively affects the firm’s performance. DCs is not just a single ability; instead, it refers to the building of an extensive range of resources, processes, and capabilities from experts in academia and industry to survive in the ever changing, uncertain market environment (Diabat et al., 2014; Govindan and Cheng, 2015; Mathivathanan et al 2017).

In this context, we intend to investigate whether dynamic capability mediates the relationships between organizational pressures and sustainability performance. In the proposed framework, the concept DCs consists of five underlying capabilities: market sensing capability; learning capability; integration capability; innovation capability and replication capability, all of which are crucial in enhancing firm’s sustainability performance.

**Market Sensing Capability:** Market sensing capability includes organization’s ability to identify and/or create new market opportunities (e.g. new product line, identification of new business regions) as well to create awareness about its competitors’ and customer’s preferences (Song et al., 2007). This is an integrative process of understanding complex consumer-specific needs in achieving product differentiation relative to competition, and superior brand equity by using a firm’s tangible and intangible resources equity (Day, 1994; Dutta et al., 1999; Song et al., 2007).

**Seizing Capability:** Capability to respond to and exploit sensed opportunities or threats by implementing new or modified products, practices and processes (Teece, 2007).

**Reconfiguration Capability:** Capability to align and realign resources/competences to match the opportunities and requirements to achieve strategic fit (Teece, 2007).

**Learning Capability:** Organizational learning is a process of developing organizational capabilities and behaviours using both common experiences and the understanding of new knowledge development. (Fiol and Lyles 1985, Senge, 1990; Slater and Narver, 1995). (Kalmuk and Acar 2015).

**Innovation Capability:** Ability to develop new products and/or even new markets (e.g. product innovation such as green packaging, eco labelling), process innovation (innovation in yarn production), technology innovation (Wang and Ahmed 2007; Dixon et al. 2014; Lawson and Samson, 2001; Rajapathirana and Hui, 2017).

Several studies describe the DCs’ association with gaining competitive advantage by integrating various abilities in business activities (Clark and Fujimoto, 1991, Dougherty 1992, and Helfat and Raubitschek 2000).
Eisenhardt and Martin (2000) illustrate exactly how the methods used in DCs help companies achieve a competitive edge in dynamic markets. On the other hand, Zollo and Winter (2002) investigate the evolution of DCs and show how organizations develop their dynamic capabilities. On the other hand, Beske (2012) describes how sustainability practices help a firm to achieve greater control over their supply chains and how competitive advantages are achieved by implementing DCs (Mathivathanan et al. 2017). Through an exploratory study, Mousavi and Bossink (2017) explain how sensing, seizing and reconfiguration capabilities are built and strengthened for sustainable innovation. Therefore, dynamic capability can act as a mediator of the relationship between organizational pressures and sustainability performance. Based on the above argument, we propose the following hypotheses.

H3a: DCs mediate the relationships between internal organizational pressures and economic performance.

H3b: DCs mediate the relationships between internal organizational pressures and environmental performance.

H3c: DCs mediate the relationships between internal organizational pressures and social performance.

H4a: DCs mediate the relationships between external organizational pressures and economic performance.

H4b: DCs mediate the relationships between external organizational pressures and environmental performance.

H4c: DCs mediate the relationships between external organizational pressures and social performance.

c. Moderating Effect of Organizational Resource Commitment

Resource commitment refers to the distribution of “tangible and intangible entities available to the firm that enable it to produce efficiently and/or effectively a market offering that has value for some market segment(s)” (Hunt, 2000, p.85). In other words, resource commitment is linked to the allocation of valuable resources to do the most good (Daugherty et al., 2005). Most of companies are developing sustainability management strategies and capabilities to achieve a competitive advantage and superior sustainability performance, but have failed to achieve desirable outcomes owing to a lack of organizational resource commitment. Lack of commitment of sufficient financial, managerial and technological resources may limit the performance outcomes of sustainability management strategies (Simpson, 2012; Rogers and Tibben-Lembke, 1999; Daugherty et al., 2005). The process of allocating valuable resources to such performance-enhancing initiatives is a challenging task for an organization, but if leveraged properly, can be used to develop capabilities that result in superior performance (Daugherty et al. 2005).

Previous studies have shown that if organizational resource commitment is higher in a particular program or process, it results in improved financial performance (Isobe et al., 2000; Sweeney and Szweczykowski, 1996). In a similar study, the researchers argue that specific resource commitment to a reverse logistics program increases not only the probability of increase service quality and economic performance (Daugherty et al., 2002). In an empirical study, Li (2014) finds that resource commitment works as a moderator between environmental innovation practices and financial performance, which means that when a resource commitment increases, the financial performance with regard to the environmental innovation practices will improve. In summary, from the literature it is evident that organizational resource commitment impacts strongly on the successful implementation of this sustainability strategies.

Based on the above argument, we propose the following hypotheses:

H5: Organizational Resource Commitment (RC) moderates the relationships between Sustainability SMS and sustainability performance.

H6: Organizational Resource Commitment (RC) moderates the relationships between DCs and sustainability performance.
METHODOLOGY

i. Construct Operationalization and Questionnaire Development

To test the proposed research hypotheses, a survey-based approach has been employed. A draft questionnaire was prepared based on the following theoretical constructs: organizational pressures (both internal and external), sustainability management system, organizational capability, organizational resource commitment and sustainability performances (economic, environmental and social). The items of these theoretical constructs were developed based on an extensive literature review and a wide range of documentary analysis (e.g. stand-alone CSR/sustainability reports, annual reports, UNGC Communication on Progress reports, codes of conduct, handbooks of the selected best practicing RMG companies and their supply chain partners) to get a rich understanding about their business processes and practices. A five point Likert scale was employed for the survey questions.

The data collection process will be conducted in two stages: pre-testing and testing the survey (Malhotra and Grover, 1998; Eckstein et al., 2015). In the first stage, the validity and reliability of the survey instrument was ensured by piloting it among experienced corporate managers of the Bangladeshi RMG industry. The questionnaire also reviewed by experienced academicians with proven research expertise in sustainable business practices. The pilot-test was conducted to ensure that the questions were clear, meaningful, relevant and easy to interpret. Participants were carefully chosen amongst top and mid-level corporate managers, compliance managers or sustainability experts who have extensive knowledge on the chosen subject area (i.e. sustainability management system, organizational capability, resource commitment, performance). Based on the comments received from corporate managers and academicians, some questions were modified to make it more clear and relevant for the Bangladeshi RMG managers. These constructs were operationalized are shown in the Table 1.

ii. Sampling and Data Collection

In the second stage of data collection, after several revisions, the final questionnaire was developed and became ready for large-scale survey. To test the proposed conceptual framework, 3000 RMG companies will be randomly selected from the member list of Bangladesh Garment Manufacturers and Exporters Association (BGMEA). Questionnaire will sent to random 2000 RMG companies by post. The target respondents will be the top and mid-level corporate managers, compliance managers or sustainability experts in those chosen companies who have extensive knowledge on the chosen subject area. Follow-up calls will be made to encourage completion and return of the questionnaires and to clarify any questions or concerns that potentially had arisen. The respondents will be assured that responses would be kept stringently confidential and anonymous before administrating the survey. A cover letter titled ‘Participant Information Leaflet ‘explaining the purpose and the background of this study with an invitation to the participating companies was attached with the questionnaire.

iii. Control Variables

To fully justify for the differences among organizations, we include two control variables: organization size and organization’s age. The number of employees and revenue are used to measure the size of the organization. It is argued that the larger the size of the organization, the greater the organizational pressures on the organization to improve sustainability performance. On the other hand, the more the organization conducted business has the higher possibility of developing SMS and OC to improve sustainability performance. The characteristics of the sample is shown in Table 2.

DATA ANALYSIS PLAN

After the data collection, entire dataset will be checked for multivariate analysis such as data normality, heteroscedasticity, missing values and outliers (Hair et al., 2006). In the next step, both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) will be used to merge individual items into multi-item
groups. Then correlation testing will be done to find out the significance. Mediation will be tested using a structural equation model (SEM) and maximum likelihood estimation in AMOS (Arbuckle, 2006). There are several advantages of using SEM for data analysis.

<table>
<thead>
<tr>
<th>Demographic Information</th>
<th>Characteristics</th>
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<tbody>
<tr>
<td>Managerial Level</td>
<td>Entry-level</td>
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<tr>
<td></td>
<td>Mid-level</td>
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<tr>
<td></td>
<td>Top-Level</td>
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<tr>
<td>Organization’s Age</td>
<td>1-5 years</td>
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<tr>
<td>(Number of years in</td>
<td>5-10 years</td>
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<tr>
<td>business)</td>
<td>More than 10 years</td>
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<tr>
<td>Organization’s Size</td>
<td>Below 500</td>
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<tr>
<td>(Number of Employees)</td>
<td>5000 to 10000</td>
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<tr>
<td></td>
<td>More than 10000</td>
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<tr>
<td>Organization’s Yearly</td>
<td>Below 20m</td>
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<tr>
<td>Turnover in USD/year</td>
<td>20m to 50m</td>
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<td>More than 50m</td>
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Table 2. Characteristics of the Sample

SEM test all relationships between latent variables and observed variables, and the relationships among multiple latent variables simultaneously. Some major problems occur when mediation testing were conducted using correlation statistics such as regression and hierarchical regression (e.g. da Silveira and Arkader, 2007; Ho et al., 2001). This approaches results in problems related to measurement error in mediator variable scores as well as difficulties in modelling causation (Hopwood, 2007). SEM diminishes this problem by reducing measurement error through the application of latent variables. All modelled paths, both un-mediated and mediated, will be tested for their structural fit using multiple goodness-of-fit indices including CFI, IFI and RMSEA. In addition, the moderating effect of resource commitment on the relationship between SMS (or DC) and sustainability performance will be examined statistically through hierarchical regression.

CONCLUSIONS

Integration of sustainability practices in businesses has gained extensive attention in recent times due to escalating pressures from different stakeholder groups (Rueda-Manzanares et al., 2008; Darnall et al. 2008; Seuring and Muller 2008; Diabat et al., 2014). Due to the scarcity of resources, degradation of the living environment, increase in industrial accidents, both consumers and buyers are exerting pressure to the companies to improve their environmental and social practices to ensure sustainability. Moreover, both global and local regulatory agencies are also introducing strict environmental and social regulatory policies to ensure ethical environmental and social practices (Bai and Imura, 2001; MacBean, 2007). To cope with these regulations and customer demand, companies are started to develop or planning to develop dedicated management systems and capabilities to manage and monitor adopted SBPs (Su-Yol, 2008; Lin and Ho, 2011; Lai et al., 2011). This study tried to address this problem by developing the proposed conceptual model.

This study offers several contributions to the existing literature related to sustainability issues. All three dimensions – economic, environmental and social are incorporated in the model to define sustainability performance which is one of the major contributions of this study as a limited number of empirical studies considered this holistic view. Moreover, this study will test both external and internal organizational pressures
behind SBPs adoption in developing countries context and its impact on firm’s sustainability performance as compared to most of the existing studies conducted in developed countries like US, UK, Spain etc. (Simpson, 2012; Yu et al., 2017; Garce’s-Ayerbe et al 2012; Sarkis et al 2010). The finding of this study may contradict with the results found in the existing literature as the socioeconomic condition and maturity level, as well as awareness about sustainability issues are not at the same high level in a developing country like Bangladesh. Furthermore, this study will investigate the mediating role of SMS and DCs which will provide a detailed guideline to the corporate managers as well as policy-makers in determining how an integrated management system can be deigned as which DCs are important to become more sustainable. Lastly, this study will test which types of resource commitments are important for an organization to invest in developing long-lasting sustainability strategies.

Limitations and Future Research Directions
There are some limitation of this study which will offer an excellent platform for future research. This study is designed to empirically test the proposed model through a cross-sectional research design in the RMG industry of Bangladesh. As data will be collected from one point of time, it will not be possible to capture the changing dynamics over time like longitudinal study. Future longitudinal studies can be conducted to better understand the actual process of developing SMS and DCs to improve the sustainability performance indicators over time. Since the scope of the research is limited within the RMG industry which may undoubtedly limits generalizability to other industries like automobile, manufacturing, energy etc. Further research could be conducted by replicating this study in other industries with larger sample size and other control variables. Moreover, comparative studies could be undertaken in both developed and developing countries and/or between different industries to compare significance of different types of pressures, sustainability performance indicators and/or capabilities in each perspective. Since the survey will be undertaken based on the perception of respondents, rigorous operationalization of the items has been conducted to confirm high validity and compatibility to predict the actual process (Eckstein et al., 2015). Additionally, future research can identify other relevant dynamic capabilities (e.g. adaptive capability, integration capability, operational capability, knowledge acquisition capability) and resource commitment (IT, knowledge resources) as a mediator or moderator to improve sustainability performance.
### Appendix 1 Operationalized Constructs

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Item</th>
<th>Measurement</th>
<th>Reference</th>
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<tbody>
<tr>
<td><strong>Internal Pressures (IP)</strong></td>
<td>IP1</td>
<td>Pressure from employees</td>
<td>Collins et al 2010; Rauter et al 2015</td>
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<tr>
<td></td>
<td>IP2</td>
<td>Pressure from top level management</td>
<td>Zhu et al., 2005; Handfield et al., 2005</td>
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<td></td>
<td>IP3</td>
<td>Pressure due to the firm’s moral or ethical commitment</td>
<td>Rauter et al 2015; Brockhaus, 2013</td>
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<tr>
<td></td>
<td>IP4</td>
<td>Pressure to enhance business competitiveness</td>
<td>Wong, 2013; Eisenhardt and Martin, 2000</td>
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<td></td>
<td>IP5</td>
<td>Pressure to improve company image</td>
<td>Collins et al 2010; Rauter et al 2015</td>
</tr>
<tr>
<td></td>
<td>EP2</td>
<td>Pressure from suppliers</td>
<td>Fargani et al 2016</td>
</tr>
<tr>
<td></td>
<td>EP3</td>
<td>Pressure from competitors</td>
<td>Collins et al 2010; Rauter et al 2015</td>
</tr>
<tr>
<td></td>
<td>EP4</td>
<td>Pressure from government and regulatory bodies</td>
<td>Collins et al 2010; Linton et al., 2007</td>
</tr>
<tr>
<td></td>
<td>EP5</td>
<td>Pressure from various trade bodies</td>
<td>Wu et al 2012</td>
</tr>
<tr>
<td></td>
<td>EP6</td>
<td>Pressure due to international agreements</td>
<td>Collins et al 2010</td>
</tr>
<tr>
<td></td>
<td>EP7</td>
<td>Pressure from media</td>
<td>Gillet-Monjarret 2015</td>
</tr>
<tr>
<td></td>
<td>EP8</td>
<td>Pressure from local community</td>
<td>Wijethilake 2017; Collins et al 2010</td>
</tr>
<tr>
<td></td>
<td>EP9</td>
<td>Pressure from human, labour or environmental rights</td>
<td>Wijethilake 2017</td>
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<tr>
<td><strong>Sustainability Management System (SMS)</strong></td>
<td>SMS1</td>
<td>Sustainability policy</td>
<td>Pojasek et al 2012; Mustapha et al. 2017</td>
</tr>
<tr>
<td></td>
<td>SMS2</td>
<td>Dedicated sustainability manager and/or team</td>
<td>Mustapha et al. 2017</td>
</tr>
<tr>
<td></td>
<td>SMS3</td>
<td>Annual targets for different sustainability parameters</td>
<td>Pojasek et al 2012</td>
</tr>
<tr>
<td></td>
<td>SMS4</td>
<td>Regular monitoring and management of sustainability</td>
<td>Mustapha et al. 2017</td>
</tr>
<tr>
<td></td>
<td>SMS5</td>
<td>Sustainability reporting</td>
<td>Pojasek et al 2012</td>
</tr>
<tr>
<td></td>
<td>SMS6</td>
<td>Rewards for suggesting/implementing innovative ideas</td>
<td>Mustapha et al. 2017</td>
</tr>
<tr>
<td></td>
<td>SMS7</td>
<td>Identifying training needs of the employees in sustainability issues</td>
<td>Pojasek et al 2012</td>
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<tr>
<td><strong>Dynamic Capability (DC)</strong></td>
<td>DC1</td>
<td>Market Sensing Capability</td>
<td>Teece 2007; Lieberherr and Truffer, 2014</td>
</tr>
<tr>
<td></td>
<td>DC2</td>
<td>Seizing Capability</td>
<td>Teece 2007</td>
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<tr>
<td></td>
<td>DC3</td>
<td>Reconfiguration Capability</td>
<td>Teece 2007</td>
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<tr>
<td></td>
<td>DC4</td>
<td>Learning Capability</td>
<td>Teece and Pisano 1994; Protogerou et al. 2011</td>
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<td></td>
<td>DC5</td>
<td>Innovation Capability</td>
<td>Wang and Ahmed 2007; Dixon et al.</td>
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<tr>
<td></td>
<td>RC1</td>
<td>Financial Resource Commitment</td>
<td>Daugherty et al 2005; Li 2014</td>
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<tr>
<td></td>
<td>RC2</td>
<td>Human Resource Commitment</td>
<td>Daugherty et al 2005; Li 2014</td>
</tr>
<tr>
<td>Resource Commitment (RC)</td>
<td>RC3</td>
<td>Infrastructural Resource Commitment</td>
<td>Li 2014</td>
</tr>
<tr>
<td>--------------------------</td>
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</tr>
<tr>
<td>RC4</td>
<td></td>
<td>Technological Resource Commitment</td>
<td>Daugherty et al 2005; Li 2014</td>
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<table>
<thead>
<tr>
<th>Economic Performance (ECOP)</th>
<th>ECOP1</th>
<th>Increase in Sales volume</th>
<th>Yu et al 2017; Hojnik and Ruzzier 2017</th>
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<tbody>
<tr>
<td>ECOP2</td>
<td></td>
<td>Market share has increased</td>
<td>Yu et al 2017; Hojnik and Ruzzier 2017</td>
</tr>
<tr>
<td>ECOP3</td>
<td></td>
<td>Profit margin has increased</td>
<td>Chan et al 2016</td>
</tr>
<tr>
<td>ECOP4</td>
<td></td>
<td>Company image has improved</td>
<td>Collins et al 2010</td>
</tr>
<tr>
<td>ECOP5</td>
<td></td>
<td>Operating costs has decreased</td>
<td>Severo et al 2017</td>
</tr>
<tr>
<td>ECOP6</td>
<td></td>
<td>New customer/ geographical markets has increased</td>
<td>Yu et al 2017; Hojnik and Ruzzier 2017</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental Performance (ENVP)</th>
<th>ENVP1</th>
<th>Reduction in consumption of energy, waste and water</th>
<th>Sarkis et al 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVP3</td>
<td></td>
<td>Introduced EMS (e.g. ISO 14001).</td>
<td>Yu et al 2017</td>
</tr>
<tr>
<td>ENVP4</td>
<td></td>
<td>Installed Effluent Treatment Plan (ETP).</td>
<td></td>
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<tr>
<td>ENVP5</td>
<td></td>
<td>Reduction in pollution (e.g. air, water, solid waste)</td>
<td>Long et al 2017</td>
</tr>
<tr>
<td>ENVP6</td>
<td></td>
<td>Adopted resource and process efficiency practices</td>
<td>Long et al 2017</td>
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</table>

<table>
<thead>
<tr>
<th>Social Performance (SOCP)</th>
<th>SOCP1</th>
<th>Achieved important social compliance related certifications</th>
<th>Wijethilake 2017</th>
</tr>
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<tbody>
<tr>
<td>SOCP2</td>
<td></td>
<td>Made improvements in occupational health and safety</td>
<td>Hong et al. 2017</td>
</tr>
<tr>
<td>SOCP3</td>
<td></td>
<td>Allowed freedom of association and right to collective bargaining.</td>
<td>Wijethilake 2017</td>
</tr>
<tr>
<td>SOCP4</td>
<td></td>
<td>Ensured fair wage to the workers.</td>
<td>Wijethilake 2017</td>
</tr>
<tr>
<td>SOCP5</td>
<td></td>
<td>Maintained legally specified working hours</td>
<td>Hong et al. 2017</td>
</tr>
<tr>
<td>SOCP6</td>
<td></td>
<td>Implemented employee welfare programs</td>
<td>Hong et al. 2017</td>
</tr>
<tr>
<td>SOCP7</td>
<td></td>
<td>Participated in community development programs</td>
<td>Qu et al 2015</td>
</tr>
</tbody>
</table>
References


Diabat, A., et al. (2014). "Analysis of enablers for implementation of sustainable supply chain management–A
textile case." Journal of Cleaner Production 83: 391-403.


