



Towards a theory of sustainable consumption and production: Constructs and measurement



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ABSTRACT

There has been increasing interest from both academics and practitioners in sustainable consumption and production (SCP) behaviour. The literature has mainly focused on antecedents and indicators for SCP behaviour, but scholars are yet to develop frameworks that provide insights into SCP behaviour. To address this gap, this paper develops a theoretical model grounded in institutional and agency theories that explicates the role of top management beliefs and participation when dealing with institutional pressures that impact upon SCP behaviour by facilitating information sharing and reducing behavioural uncertainty. Based on a sample of 167 responses from a survey with Indian organizations, we test the model using partial least squared regression-based structural equation modelling (PLSR SEM). Our results indicate the role of top management commitment as a mediator between institutional pressures and SCP behaviour and the role of beliefs as shaping the commitment of top managers towards strengthening SCP behaviour. We further suggest that participation plays a significant role in quality information sharing, which is important in reducing behavioural uncertainty among stakeholders. Finally we outline our research limitations and further research directions.

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1. Introduction

In recent years the interest in sustainable consumption and production (SCP) has grown steadily (Tukker et al., 2010). Subramanian and Gunasekaran (2015) have argued that cleaner and sustainable supply chain practices can provide a competitive advantage to organizations, whereas unsustainable patterns of consumption and production are the root causes of pressing environmental problems (Southerton et al., 2004; Berg, 2011; Huang et al., 2012). SCP is defined as “the use of services and related products, which respond to basic needs and bring a better quality of life while minimizing

the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of further generations. . .” (Norwegian Ministry of Environment, Oslo Symposium, 1994). The concept of SCP received recognition during the World Summit on Sustainable Development (WSSD) held at Johannesburg in the year 2002 (UNEP, 2010). SCP is, hence, one of the key objectives of sustainable development that promotes resource and energy efficiency, sustainable infrastructure, and access to basic services, green and decent jobs and better quality of life for all (UNEP, 2010).

There is a rich body of literature on SCP behaviour (e.g. Tukker et al., 2008; Lebel and Lorek, 2008; Tukker et al., 2010; Berg and Hukkinen, 2011). Berg (2011) has argued that successful SCP policy revolves around three organizing principles: (i) deliberation; (ii) efficiency; and (iii) sufficiency, whereas Krajnc and Glavic (2003) have classified indicators under environmental, social and economic categories for measuring the success of SCP. Later studies (e.g. Spangenberg et al., 2010; Young et al., 2010; Lin and Huang,

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2012; Nazzal et al., 2013) have investigated the impact of factors and issues such as values and attitudes, learning, and product attributes, as well as the integration of social, economic, environmental and institutional aspects to explain SCP and related behaviours.

However, literature has not yet explored the role of external pressures in strengthening SCP behaviour, and in particular how top managers may use external pressures to build SCP behaviour. Gunasekaran and Spalanzani (2012) highlight that there is a lack of frameworks for both practitioners and scholars that would provide insights into SCP behaviour in both manufacturing and services. In their review, they suggest a framework for sustainable development along with strategies, techniques and tools. To address this gap in the SCP literature, we develop a theoretical framework that explicates (i) how top management can influence SCP behaviour, and (ii) what the influence of information sharing and reduction is in behavioural uncertainty on SCP behaviour. We use survey data gathered from 167 Indian companies that have embraced SPC as one of their guiding philosophies. We draw on institutional theory (DiMaggio and Powell, 1983) and agency theory (Eisenhardt, 1989). Both theories have been popular in operations management (OM) and SCM research (Ketokivi and Schroeder, 2004; Liu et al., 2010; Zhang et al., 2015). However, they are yet to be used to explain SCP related phenomena (Ketchen and Hult, 2007; Cai et al., 2010; Kauppi, 2013). The study conducted by Zhu and Geng (2013) contributes to the supply chain management literature by indicating that internal barriers such as lack of financial gains, resource and capability tend to weaken the impact of external drivers. However, an investigation with respect to SCP behaviour will be an interesting contribution to SCP literature.

The rest of the paper is organized as follows. In the next section, we develop our theoretical framework and identify research hypotheses. The subsequent sections describe the construct operationalization and data collection process, present the data analysis procedure and the results of model testing, and discuss the findings and their theoretical and managerial implications. The last section concludes the paper and provides directions for future research.

2. Theoretical framework

The theoretical framework is firmly grounded in the literature (Fig. 1). It comprises four elements: institutional theory, the influence of top management commitment, the role of information sharing among stakeholders, and the reduction of behavioural uncertainty among stakeholders. In the last two decades, institutional theory (DiMaggio and Powell, 1983) has been used by management scholars to explain the intention of the organizations to embrace best practices. Zhu and Sarkis (2007) have attempted to investigate the moderating role of institutional pressures on green supply chain practices with reference to Chinese firms. Dubey et al. (2015) have attempted to explain firms' operational practices using institutional theory. Kauppi (2013) has argued the need for extending the use of institutional theory in the field of operations management and supply chain management. Eppel et al. (2013) have argued the need for strong policy to influence citizen behaviour towards sustainable consumption. Österle et al. (2015) have attempted to explain the sustainable behaviours of stakeholders in design of eco-efficient logistics.

We argue that institutional theory will offer some useful insight to understand the sustainable behaviour of the stakeholders. Furthermore, we argue that external forces, no matter how strong they are, will have no effect on the quality of information sharing which may help in reducing behavioural uncertainty. Hence we argue that the role of human agents (i.e. top management) in such situations may be instrumental in influencing the quality of

information sharing and reducing behavioural uncertainty. The quality of information sharing and the degree of uncertainty reduction among key stakeholders will determine the successful implementation of SCP programs. Our theoretical framework is firmly grounded on the proposition that institutional forces affect organizational behaviour, being mediated by the top management. The role of top management in facilitating information sharing has been highlighted previously (e.g. Lai et al., 2010; Kembro and Näslund, 2014; Wu et al., 2014). Scholars, however, have not investigated the role of top management through top management commitment towards information sharing and reducing behavioural uncertainty which further helps to strengthen SCP behaviour.

2.1. Institutional pressures

Institutional theory posits that structural change and behavioural changes in organizations are driven less by competition and the desire for efficiency, and more by the need for organizational legitimacy. The drive for legitimacy fosters the process for institutionalization which makes the organizations more similar without necessarily making them more efficient, giving rise to institutional isomorphism (DiMaggio and Powell, 1983). There are three types of mechanisms, that is, institutional pressures, towards institutional isomorphism (DiMaggio and Powell, 1983): these are coercive, normative and mimetic. Kauppi (2013), based on DiMaggio and Powell (1983), has attempted to explain coercive isomorphism. It is due to both formal and informal pressures exerted on organizations by other organizations upon which they are dependent and by the expectations of the society. Liu et al. (2010) have argued that a powerful firm can exert coercion on their suppliers to embrace favourable operational practices to serve their own interests. Zhu and Sarkis (2007) have noted that companies are under pressure from stakeholders, such as customers and the government, to embrace sustainable practices. However, Miemczyk (2008) has argued that coercive pressures can always lead to adoption of practices, but not always lead to efficiencies.

Normative pressures result from professionalization, defined as a move by members of an occupation to establish greater legitimacy for their occupation (Kauppi, 2013). DiMaggio and Powell (1983) argued that if many employees have similar qualifications and industry experiences, then they tend to define problems and filter information similarly.

Mimetic isomorphism is largely due to prevailing uncertainty that encourages imitation (Zsidisin et al., 2005; Kauppi, 2013). DiMaggio and Powell (1983) have argued that the greater the uncertainty in an organization, the greater the tendency this organization will show towards mimicking other successful organizations. Mimetic isomorphism occurs by imitating most successful practices and thus avoiding risk of failure as a first mover (Kauppi, 2013).

Institutional theory has been used in the field of OM & SCM to explain 'unresolved puzzles' (Ketokivi and Schroeder, 2004; Zhu et al., 2005; Ketchen and Hult, 2007; Liu et al., 2010; Sarkis et al., 2011; Bhakoo and Choi, 2013; Kauppi, 2013). For instance, Bhakoo and Choi have investigated how organizations in different supply chain tiers respond to institutional pressures when implementing inter-organizational systems, whereas Liu et al. (2010) have looked into the institutional pressures that motivate a firm to adopt supply chain management systems. Apart from these notable exceptions, applications of institutional theory in the field of OM and SCM are scarce. Although there are studies where institutionalization of sustainable consumption (see, Mont, 2004; Zhu and Geng, 2013) has been discussed, more empirical research needs to be undertaken to answer the pressing call of the researchers who believe that

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