Impact of Supply Chain Actor Citizenship Behavior on Supply Chain Learning Processes

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Abstract

Critical evaluation of early literature into supply chain learning indicates lack of research into the impact of supply chain actor citizenship behavior on supply chain learning processes. Therefore, this study explores the impact of supply chain actor citizenship behavior impact on supply chain learning processes. The study uses constructivist epistemology, interpretative theoretical perspective, case study research methodology and grounded theory thematic technique in data analysis. Findings of the study indicate that different elements of the supply chain actor citizenship behavior concept are connected to different levels of supply chain learning processes. Self-development is found to have an impact on intuition process, helping behavior is found to have an impact on interpretation process, tolerance is found to have an impact on integration process and constructiveness is found to have an impact on institutionalization process. An original contribution to theory includes extending organizational learning theory and citizenship behavior concept to supply chain context. And practitioners are recommended to explore dynamics of self-development, helping behavior, tolerance, and constructiveness on enhancing supply chain learning processes.

Keywords: Behavioral Perspective of Supply Chain Learning, Multi-level Perspective, Supply Chain Actor Citizenship Behavior, Supply Chain Learning, Supply Chain Relationships

Introduction

The previous literature argues that self-motivated learning has long-term cognitive and behavioral changes (Esper et al., 2015; Crossan et al., 1995). Similarly, the Crossan et al. (1995) model elaborates the need to search for unforceful cognitive and behavioral changes

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of learning. In this regard, early literature uses the concept of citizenship behavior that discusses the “genuine desire” towards the duties of a job that is moving beyond the employment requirements of the tasks (Esper et al., 2015). Few studies focus on exploring organizational citizenship behavior in supply chain learning context (Esper et al., 2015) and few researchers focus on the multi-level presence of citizenship behavior in supply chain learning (Esper et al., 2015). This study argues the use of the individual as the unit of analysis and termed it as supply chain actor citizenship behavior which is an original contribution to literature. The concept of unforceful learning and genuine desire to commit is having conceptual bonds to address the catalysts of supply chain learning. Therefore, this study tries to pinpoint the catalyst role of supply chain actor citizenship behavior on supply chain learning processes. Next section synthesis literature into the research problem and identify research gaps of the study.

**Literature Review**

Use of multiple theoretical perspectives to build new theories provides a strong foundation for theory building (Matthews et al., 2016; Zachria et al., 2014; Okhuysen, 2011). Further, the role of supply chain actor citizenship behavior in the supply chain learning context is less studied in the literature (Hart et al., 2016). Hence, this study extends the organizational citizenship behavior theory to conceptualize supply chain actor citizenship behavior concept. Further, the study extends organizational learning theory to theorize the supply chain learning processes. Next section discusses the theoretical perspectives of the study.

**Theoretical Perspectives**

Organizational citizenship behavior concept is much studied in the fields of organizational behavior, human resource management, psychology and leadership (Hart et al., 2016). Little research has been conducted in supply chain partner citizenship behavior in supply chain learning. In addition, most of the research into inter-organizational and organizational citizenship behavior is conducted using positivistic perspectives (Hart et al., 2016). Behavior beyond the traditional measures of job performance garners attention in today's networked economy (Dyne et al., 1994) as it is related to the long-term bonding of employees with the supply chain (Hansen et al., 2013). Early researchers identify organizational citizenship behavior as individual's behavior (Hart et al., 2016; Autry et al., 2008). Organizational citizenship behaviors are classified as helping behaviors, sportsmanship, organizational
loyalty, individual initiative, organizational compliance, civic virtue, and self-development (Autry et al., 2008). Later researcher extends organizational citizenship behavior concept to supply chain context as inter-organizational citizenship behavior and supply chain partner citizenship behavior (Esper et al., 2015; Autry et al., 2008). Most of these studies use positivist approaches and later researchers argue the negative impact of over commitment to organizations from individuals' perspective. That suggests the need to extend organizational citizenship behavior concept using "individual as the unit of analysis". Moreover, there are very few studies that focus on the impact of citizenship behavior on supply chain learning processes. Hence, this study conceptualizes citizenship behavior concept at individual unit of analysis as “supply chain actor citizenship behavior”. This study identifies self-development, helping behavior, tolerance, and constructiveness as elements of supply chain actor citizenship behavior.

Organizational learning theory is a well-developed field of study. Synthesis of early literature indicates that learning as continuous, cyclical process that change in cognition and behavior of individuals (Crossan, Maurer & White, 2011). Early literature mostly uses the concept of absorptive capacity to address capabilities of learning (Kang & Lee, 2016; Lane & Lubitken, 1998). Further, early literature address processes of learning using Crossan’s 4-I model (Crossan et al., 1999). Crossan’s 4-I model identify intuition, interpretation, integration, and institutionalization as processes of organizational learning (Crossan et al., 1999). A critical review of the literature indicates that Crossan's 4-I model mostly focus on cognitive and behavioral aspects of learning processes (Crossan et al., 1999). Nonetheless, supply chain learning is a less developed field of literature. Hence, there are enormous gaps to address. Few researchers extend Crossan’s 4-I model to supply chain context (Tam & Gray, 2016; Jones & MacPherson, 2006). However, little research has focused on exploring the facilitators of supply chain learning processes (Knight & Pye, 2005). Further, critical review of the literature indicates that forced cognitive and behavioral changes are short-term in duration (Crossan et al., 1995). Therefore, early researchers emphasize the importance of studying genuine learning. Thus, this study focus on exploring genuine behavior using the concept of “citizenship behavior” and its impact on supply chain learning processes. This study extends learning processes of Crossan’s 4-I model to supply chain context (Crossan et al., 1999).
Supply Chain Learning Processes

This study identifies intuition, interpretation, integration, and institutionalization as processes of supply chain learning. Intuition process operates at the individual level, interpretation process operates at the individual-group level, integration process operates at the group-organizational level and institutionalization process operates at the organizational level (Tam & Gray, 2016; Jones & MacPherson, 2006; Crossan et al., 1999). Intuition process is identified as preconscious recognition of patterns (Tam & Gray, 2016; Jones & MacPherson, 2006; Crossan et al., 1999). A critical review of the early literature indicates that it consists of creativity, expertise, intelligence, and memory, thinking, building images, model, and insights (Akinici & Sadler-Smith 2012). Then, the interpretation process consists of discussions, conversations and dialogs to share new insights with others (Tam & Gray, 2016; Jones & MacPherson, 2006; Crossan et al., 1999). Thereafter, integration process consists of adjusting new knowledge to the existing knowledge (Tam & Gray, 2016; Jones & MacPherson, 2006; Crossan et al., 1999). Finally, the institutionalization process is concerned with the implementation of new models that involve resource allocations and investments (Tam & Gray, 2016; Jones & MacPherson, 2006; Crossan et al., 1999). These processes operate in a cyclical manner (Tam & Gray, 2016; Jones & MacPherson, 2006; Crossan et al., 1999). Next section, exploring the use of citizenship behavior as a facilitator of supply chain learning processes.

Concept of Supply Chain Actor Citizenship Behavior

The supply chain partners would learn from each other if there were a genuine relationship (Lane & Lubtiken, 1998); 'genuine' in a supply chain relationship requires behavior beyond the contracts. The extra effort is more related to implicit motivation and life-long learning of supply chain actors.

Inter-organizational citizenship behavior concept is identified as inter-firm behavioral tactics, generally enacted by boundary spanners, which is discretionary that aggregate and enhances effective supply chain functioning (Autry et al., 2008). Autry et al (2008) identified inter-organizational citizenship behavior as inter-organizational altruism, tolerance, loyalty, conscientiousness, compliance, constructiveness, and advancement by extending elements of organizational citizenship behavior concept to inter-organizational level. Early researchers identify inter-organizational advancement as inter-firm behaviors that are focusing on improving common knowledge (Autry et al., 2008). Inter-organizational altruism is identified...
as firm's selfless effort to assist partner firms in solving business problems (Autry et al., 2008). Then, inter-organizational tolerance is conceptualized as the willingness to tolerate inconveniences in business relationships (Autry et al., 2008). Similarly, Autry et al. (2008) identify inter-organizational constructiveness as working towards the best interests of supply chain partners in supply chain affairs.

However, supply chain partner citizenship behavior is not much reported in the literature relating to supply chain learning. Its nature makes it applicable in the supply chain learning field. Although there is little supply chain partner citizenship behavior theories available in the literature, it has been identified that supply chain partner citizenship behavior is an important factor in supply chain learning. Hart et al. (2016) identify the moderating role of organizational citizenship behavior that enhances the relationship between firms' routines, processes, and organizational level absorptive capacity which is learning capability at organizational levels. Thus, this study studies the supply chain citizenship behavior as a catalyst of dyadic supply chain learning.

In today’s business environment, behavioral outcomes play a vital role (Organ & Konovsky, 1989; Organ, 1994, 1997). Supply chain partner citizenship behavior is related to psychological and sociological components (Organ & Konovsky; Organ, 1994, 1997). Overwork for the organization is argued as being stressful for an individual; there are personal costs in long run (Bolino et al., 2013). Thus, this study argues that the dark side of organizational citizenship behavior can be removed by using the individual as the unit of analysis in citizenship behavior concept. Individual behavior is considered in studying supply chain citizenship behavior in this study. This is termed “supply chain actor citizenship behavior” in this study. Individual behavior is considered in studying supply chain citizenship behavior in this study using the term “supply chain actor citizenship behavior.”

**Impact of Supply Chain Actor Citizenship Behavior on Supply Chain Learning**

Most of the early literature consider citizenship behavior concept as an organizational level concept that results in negative consequences to individual employees in long-term (Bolino et al., 2013). For instance, overworking for an organization result in increasing stress level of employees and work-life imbalances (Bolino et al., 2013). Therefore, in order to reduce negative aspects of organizational citizenship concept, it is suggested to consider citizenship behavior as an individual level concept. Further, it is evident that less research has focused on the impact of citizenship behavior on supply chain learning processes. This is the focus of
this study. Furthermore, most of the studies into supply chain management considers one supply chain actors' perspective in in theory development. Nonetheless, this study uses both supply chain partners perspective, in theory, develop that gives higher validity to the theory.

Research Problem and Question of the Study

This study fills the gaps in the literature by developing a model that addresses the role of supply chain actor citizenship behavior on supply chain learning processes.

The research problem of the study is articulated as indicated below;

- How does the supply chain actor citizenship behavior impact on supply chain learning processes?

Accordingly, the following research question is posed:

- How do the elements of supply chain actor citizenship behavior (self-development, helping behavior, tolerance, and constructiveness) impact on multi-levels of supply chain learning processes?

Methods

This study uses constructivist epistemology and interpretative theoretical perspectives in theory building (Plano Clark & Creswell, 2011; Bryman & Bell, 2007; Crotty, 1998). It uses case study methodology. And it comprises of use of one supply chain dyad that consists one manufacturer organization and one supplier organization. The data were collected using semi-structured interviews, secondary data, and observations during a one year time period. Most importantly, the study collects data from both supply chain partners to drive theory. Validity and reliability of the study ensured through using multiple sources of data collection and triangulation of data using multiple methods.

The unit of analysis of dyadic learning activities is individual supply chain actors. Research context includes one soft drink manufacturing organization and their strategic supplier in the packaging industry. Both supply chain partners are well-reputed organizations in Sri Lanka and are having well developed human resource management practices and learning mechanisms. For confidential purposes two supply chain partners are referred to as manufacturer organization & supplier organization. The boundary of the study is focused on supply chain learning activities related to product and process improvements. It consists of
information processing among supply chain actors. Purposive sampling method and maximum variation sampling are used to select interviewees of the study that can give wider knowledge of the phenomenon.

Grounded theory thematic analysis is used in data analysis. First, the data were coded, then codes were categorized into sub-themes and themes and then to the concepts of the study. Then, patterns of data are explored and derive causal maps and building theory of the research. The critical findings of the study areas indicated below.

**Findings of the Study**

Findings of the study indicate the dynamics of the self-development, helping behavior, tolerance and constructiveness and its impact towards supply chain learning processes.

**Impact of Self-development on Individual Level of Supply Chain Learning Processes**

From the participants’ perspective, it is revealed that both supply chain partners are giving strategic importance for employee training and career development of supply chain employees. Career planning is focusing on supply chain knowledge, skills, and attitude requirements. Moreover, supply chain employees are given with freedom to involve in career planning opportunities. Most of the training programs are unique to individual employees and depth of training covers a variety of aspects.

Further, both supply chain partners have long-term career planning for their supply chain employees. As a strategic supply chain relationship, supply chain activities involve research and development of new packages. That requires continuous research into the packaging technology for around 10 years. It enhances the expertise of the employees and ability to model new insights into packaging technologies. It is evident from the following quote;

"Our organization has strategic goals for employee training. It covers supply chain employees as well. We focus on each individual employee and their career need for next 5 years. We allow them to plan their career and then we will discuss with them. So, we provide financial support for mutually agreed upon training and development courses. Every employee attends several training courses during a year. These activities will improve their knowledge and skill, thereby enhancing the ability to derive new insights into packaging designs" (Project Manager of Supplier Organization).
Impact of Helping Behavior on Individual-Group Level of Supply Chain Learning Processes

Findings indicate that joint supply chain learning activities involve interdependent roles. These interdependent roles necessarily require conducting joint conversations to solve a variety of problems. Participants emphasized the importance of supporting behavior by group members to clarify issues. Analyses of case study data indicate that attending, responding empathically, self-awareness, summarizing, contacting and listening as types of helping behaviors found in conversations of the selected dyad. These types of helping behavior are evident in terms of handling diverse knowledge, clarifying issues in conversations. Moreover, it is evident that top management grants adequate freedom to supply chain employees to solve problems. For instance, employees are given freedom to contact any supply chain employees for solving issues. All these activities enhance in deriving common understanding in conversations. It is evident from the following quote by respondent;

“Joint package design process involves a lot of conversations. For that, we have lots of informal meetings as well as formal meetings. Because we can’t understand technical aspects of package designs. We need them to attend and explain those to us. Of course, our management team allows our employees to contact supplier employees for any problem” (Logistics Manager of Supplier Organization).

Impact of Tolerance on Group-Organizational Level of Supply Chain Learning Processes

Findings of the study indicate that substantial product and process changes require tolerating the behavior of groups and organizations in the change process. The change process is long-term; therefore, it requires the willingness of employees to bear shortcoming of either party in the integration process. Supply chains consist of a lot of interdependencies and it requires considering the impact to main stakeholder interest in changing new package designs. Novel nature of new technologies involves a lot of errors in the product and process internalizing. Observations from the factory workflows indicate that employees are cooperative in handling errors. And also, it is evident that dealing with errors results in a delay in implementation. The unique nature of changes and long-term investments further strengthen the tolerance of employees. Moreover, top management emphasizes learning from errors in the change process, which enhances employee attitude towards tolerating trivial matters. It is evident from the following quote;
“We try to introduce new reverse logistics system for the crates. We are waiting for our supplier suggestions for the areas of crates that need to consider in recycling. It got delayed due to failures in testing conducted by suppliers. Now, both organizations explore points in the delivery process that most prone to breakages. Of course, we cannot implement it during this year due to delays in testing. But, we still trust their capability to drive recycling crates” (Reverse Logistics Assistant of Manufacturer Organization).

Impact of Constructiveness on Organizational Level of Supply Chain Learning Processes

Findings of the study reveal that implementations that focus on best interests of the supply chain partners are more successful. Supply chain partners allocate new investments to mutually beneficial implementations. Moreover, the complex nature of supply chain implementations requires sequential steps in the commercialization of new packaging designs. Therefore, management emphasizes continuous reappraisal of economic, intangible benefits and costs of early stages of implementations. These constructive dealings reduce misunderstandings in resource allocation process. It is evident from the following quote;

“Finally, we go ahead with the new recycling crate strategy. We divide it into five phrases of implementation and each stage we have progress review meeting to ensure that our expectations, as well as their expectations, are met adequately” (Procurement Manager of Manufacturer Organization).

Discussion and Recommendations

Discussion of the study extends the literature by indicating the importance of self-development, helping behavior, tolerance and constructiveness and its impact towards supply chain learning processes.

Impact of Self-development on Individual Level of Supply Chain Learning Processes

Synthesis of early literature indicates that employee training and career planning is found to be critical in self-development (Agic, 2012). The Early literature identifies the need to plan career opportunities for knowledge workers that are satisfying individual as well as organizational strategies in today's business environment (Kelly et al., 2011). Aligned with previous studies, analysis of case study findings indicates the critical value of need to plan for
career opportunities. This study enhances existing literature by indicating the value of addressing needs of both dyadic supply chain partners in planning career opportunities.

Further, early literature found out that employee training positively impacts organizational commitment in a supply chain context (Lepak & Snell, 1999). Relationship based training practices found to enhance strategic supply chain relationships (Shub & Stonebaker, 2009). The relationship based training comprises of giving extensive training, customized training, mentoring and commitment based training (Shub & Stonebaker, 2009).

Further, this study enriches existing literature by indicating that long-term career planning and training opportunities enhance employee engagement into specific field in-depth manner. Thus, it creates expertise into tasks and ability to develop integrated models that enhance product and process innovations. Theories into creativity recognize the critical role of autonomy and challenging work and its positive impact on creativity (Amabile, 1996). Findings of the study enrich existing literature by indicating that autonomy to plan future enhances self-interest to commit to tasks. Continuous commitment to specific tasks increase expertise of employees; and proficient employees are capable of deciding best option that need to use to achieve goals of complex supply chain tasks. Therefore, depending on the findings of the case study analysis the proposition 1 of the study is built as follows:

Proposition 1: Higher level of self-development results in greater level of intuition process.

**Impact of Helping Behavior on individual-group level of supply chain learning processes**

Early literature identifies helping behavior as an interpersonal behavior (Howe, 2005). It is argued that interdependent roles require supportive behavior and it encourages employee cooperation in task performance (Van Dyne & Le Pine, 1998). In addition, theories into altruistic helping behaviors identify the presence of helping behavior with collective goals, collective identity and collective interest (Campbell et al., 2016). Individual-group level of supply chain learning necessarily includes interdependent roles that require support in terms of clarification and developing common understanding relates diverse knowledge requirements and problem solving. This study enhances existing literature by stating that problems into supply chain learning context are complex and it requires knowledge into wide aspects. Empirical findings indicate that extra effort is needed to utilize diverse knowledge to derive a common understanding in conversations. In addition, this study enhances existing literature by indicating that inspirational leadership traits inspire and give adequate freedom
to supply chain actors to solve problems. Employee helping behavior enhances motivation to contact them for problem-solving. Moreover, findings reveal it creates common understanding within conversations. Therefore, depending on the findings of the case study analysis the proposition 2 of the study is built as follows:

Proposition 2: Higher level of helping behavior results in greater level of interpretation process.

**Impact of Tolerance on Group-organizational Level of Supply Chain Learning Processes**

A critical review of the literature indicates that organizational citizenship behavior is found to be having long-term effects than short-term effects (Jena & Goswami, 2014); moreover, long-term commitment creates capabilities and resources (Roehrich et al., 2014). This study enhances existing literature by indicating that long-term relationships necessarily require tolerance in integration new knowledge to existing systems that require change. Early literature discusses tolerance as sportsmanship behavior in organizational citizenship behavior (Jena & Goswami, 2014). Sportsmanship behavior comprises of willingness of employees to work without complaining about trivial matters (Jena & Goswami, 2014). This study enhances existing literature by indicating that challenging established practices necessarily requires patience of dyad partners. Autry et al (2008) introduce inter-organizational tolerance concept to literature (Autry et al., 2008). It reflects willingness to bearing inconveniences in supply chain relationships without affecting the future supply chain relationship (Autry et al., 2008). These attributes indicate that its presence at group-organizational level. This study enhances existing literature by indicating that higher levels of tolerance enrich engagement of teams within the two dyad partners in the context of internalizing new changes. This research enhances existing literature by indicating that the top management of respective dyads is facilitating learning from errors. That enhances the continuous engagement of supply chain actors. In addition, it leads to confirming new adjustments to the existing system more effectively. Therefore, depending on the findings of the case study analysis the proposition 3 of the study is built as follows:

Proposition 3: Higher level of tolerance results in greater level of integration process.
Impact of Constructiveness on Organizational Level of Supply Chain Learning Processes

Inter-organizational constructiveness is conceptualized as partners working towards best interests of supply chain actors in affairs (Autry et al., 2008). Supply chains necessary involve variety of stakeholders with diverse interests. The interactions results in complex interdependencies regarding resource allocations. Early research identifies that supporting behavior change is important for successful implementations (Dunk, 1993). Theories into constructive conflicts argue critical role of encouraging continuous reappraisal process of fulfilling economic and organizational requirements, willingness to communicate objectives, constructive feedback to reduce misunderstandings, willingness to redefine allocation of resources and focusing on systematic resolution of conflicts (Baland, 2016; Assael, 1969). Findings of the study enhance existing literature by indicating that importance of considering both supply chain partners explicit and implicit goals in constructive conflicts and emphasize the need for step by step feedback process in every stage of implementations. Therefore, depending on the findings of the case study analysis the proposition 4 of the study is built as follows:

Proposition 4: Higher level of constructiveness results in greater level of institutionalization process.

Hence, the conceptual model of the study is indicated in Figure 1:

Figure 1: Conceptual model of the study
Conclusions, Recommendations and Future Research Approach

Ultimately, the study found out the critical role of supply chain actor citizenship behavior on supply chain learning processes. Further, it conceptualizes self-development, helping behavior, tolerance and constructiveness as elements of supply chain actor citizenship behavior. This study has valuable original contribution by stating that higher level of self-development of individual’s results in a greater level of intuition process; and, by stating that higher level of helping behavior of individuals results in a greater level of the interpretation process. And also, by stating that higher level of tolerance of individual’s results in a greater level of integration process; and, by stating that higher level of constructiveness of individuals results in a greater level of institutionalization process. Therefore, it is recommended for practitioners to explore the behavioral dynamics that impact on supply chain learning processes to enhance innovation in supply chain context.

Further, future researchers are suggested to test the propositions of the study using positivist research. Further, testing propositions in diverse industries and network setting would enrich the validity of the findings in wider contexts.

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