

The Evolution of Supply Chain Transparency: A Scale Development

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ABSTRACT

Introduction of Topic Area

Supply chains are under increasing pressure from a variety of stakeholders to provide transparency regarding the products they produce (New 2010). The source of this increased concern can be associated with the sustainability movement. In earlier days, much of the sustainability discussion was anchored in environmental issues. The focus of sustainability on the environment is epitomized by the often cited UN Brundtland Commission report stating that sustainability is “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland 1987). The far reaching macro-perspective offered by the Brundtland Commission is troubling for some firms as they struggle with how to apply the idea of sustainability outlined in the report to their individual firm or to the larger supply chain (Hart 1995; Starik and Rands 1995).

The term sustainability was often mingled with terminology that indicated an environmental concern. As later researchers and practitioners have searched for clarity, sustainability has been increasingly defined according to not only the environment but also the impact of the firm on society and the economy (Sikdar 2003). As such, the triple bottom line concept was developed by Elkington (1998, 2004) to include the natural environment, society, and economic performance.

With the broadening of what it means to be sustainable comes the need to increase communications with stakeholders. Firms intending to benefit from sustainability will need to effectively communicate their efforts to stakeholders while also incorporating their feedback for continued improvement of the sustainable supply chain process (Rivera-Camino 2007 and Drumwright 1996). This increased transparency is defined as reporting to and communicating with key stakeholders to provide traceability regarding the history of the product and visibility about current activities throughout the supply chain while also incorporating their feedback for supply chain improvement (Carter and Rogers 2008; Carter and Easton 2011). Unfortunately, transparency has not been adequately explored by researchers despite being noted as an important aspect of the organizational sustainability discussion (Carter and Rogers 2008). As sustainable supply chain management has evolved, transparency continues to be reinforced as a

facilitator of sustainable supply chain management (Carter and Easton 2011), but the literature building our conceptual understanding of transparency is still lacking.

This research addresses the need to sufficiently define and measure supply chain transparency (Carter and Rogers 2008). Our research explores transparency and the role it plays in sustainable supply chain management. A definition is developed and a scale is proposed which will capture and measure this construct. Our goal is to further develop an understanding of what firms must do to increase their supply chain transparency and provide a means to measure their success. While a stakeholder perspective is adopted through the incorporation of stakeholder theory, institutional theory and the resource-based view are also discussed as providing a useful theoretical lens through which to evaluate the role of transparency in the supply chain.

Research Objectives and Questions

The research is framed around a series of research questions which focus on further explication of transparency in supply chains. These research questions include:

What does it mean for a firm to be transparent regarding their supply chain?

Why does transparency matter to a firm?

What can a firm do to become transparent?

Over the last 20 years research has focused on the idea of tracing products as they move through the supply chain or increasing visibility between firms to improve the supply chain. Transparency incorporates both visibility and traceability but within a larger stakeholder perspective and increased communication. Transparency includes both the strategic and operational elements. Strategically, the firm must incorporate transparency into the corporate strategy as part of a larger sustainability plan (Shrivastava 1995). Operational elements of transparency are the individual actions undertaken that support the firm strategy. Our research will expand on both of these elements as part of the theoretical underpinnings provided for the scale development process used to create a measure of supply chain transparency.

Methodology

This research focuses on scale development so the methodology used to develop and validate the transparency scale will follow the guidelines put forth by Churchill (1979) and Campbell and Fiske (1959). Item generation begins with qualitative interviews of practitioners and academics. Traveling to practitioner meetings and academic conferences will allow the researchers to discuss the issue of transparency with subject matter experts and utilize their input to establish content and face validity of scale items.

Multiple data collections may be required to calibrate and then validate the sample. The cost of recruiting supply chain management professionals to participate in the survey could be high (according to our previous experience), and as such the researchers hope to minimize some costs by work with practitioner groups in the field to solicit their membership for participation. Panel data may also be utilized as it will allow the researchers to reach a specific audience that is familiar with supply chain management and would facilitate targeting of a specific industry for the study, if desired.

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