



Contents lists available at ScienceDirect

Journal of Purchasing and Supply Management

journal homepage: www.elsevier.com/locate/pursup

From market to hierarchy: An empirical assessment of a supply chain governance typology

Bryan Ashenbaum

Department of Management, Farmer School of Business, Miami University, Oxford, OH 45056, USA

ARTICLE INFO

Keywords:

Supply chain
Governance
Global Value Chains
Integration
Purchasing
Supplier performance

ABSTRACT

This study performs an empirical assessment of the highly influential supply chain governance typology put forth in Gereffi et al. (2005). In spite of the influence this Global Value Chain (or GVC) Typology has had, there have been few (if any) attempts to empirically assess its alignment with real-world supply chain structures and to establish a baseline for its predictive utility. The GVC Typology is assessed for face and nomological validity through testing of its key dimensions in relation to purchasing-logistics integration and supplier performance measures, using an information-processing theory framework. The GVC Typology appears to have considerable face validity as actual supply chain governance structures aligned well with those it proposes. It also has reasonable predictive power with regards to governance dimensions and integration, and in some connections between governance types, integration, and supplier performance. This study provides researchers with the tools to move this typology beyond the “conceptual” stage in their work, allowing for holistic and higher-level assessments of supply chain governance structures and changes. It may also help researchers and managers to consider when and to what extent purchasing-logistics integration should be fostered.

1. Introduction

In a 2005 paper in the *Review of International Political Economy*, sociologist Gary Gereffi and his co-authors proposed a multi-dimensional typology of supply chain governance structures (Gereffi et al., 2005). In the twelve years since, this “Global Value Chain” (or GVC) Typology paper has been highly influential, having been cited thousands of times in academic journals across multiple disciplines: economics, geography, labor relations, policy, ethics and others.¹ Its impact on the supply chain-specific literature is more modest: approximately 50 citations across the major SCM-related journals, mostly in theoretical contexts.

What may inhibit its wider use beyond theoretical positioning is a relative dearth of empirical adoptions. The GVC Typology has been used as a building block for further theoretical conceptualizations (Coe et al., 2008), in largely qualitative cases (Raynaud et al., 2005; Sturgeon et al., 2008; Nadvi, 2008; Aitken and Harrison, 2013) and in some empirical work to justify certain constructs and variables (Saliola and Zanfei, 2009). However, to our knowledge it has not been empirically assessed in its own right, to see if this theory-driven typology aligns well with reality. Given its influence, and the ever-increasing interest in supply chain governance structures and approaches in the SCM literature, an empirical assessment seems timely.

Gereffi and his co-authors essentially call for such an assessment in the final endnote to their paper:

“A high priority for the future will be the development of methods for measuring the key variables in the model. Effective proxies for transactional complexity, ease of codification, and supplier competence must be identified and tested in the field.” (Gereffi et al., 2005, p. 101).

An empirical assessment of the GVC Typology would have great value for scholars and managers alike. A better understanding of supply chain governance has been the aim of many studies within our field and from which our field has borrowed (see Section 2, below). SCM research has tended to be empirical and analytical in nature – successfully operationalizing and testing this framework will provide a potent tool for analysis and understanding. Gereffi and Lee (2012) note sweeping changes impacting global supply chains: consolidation, buyer-driven design, and shifts to value-added trade between countries. Measuring and assessing supply chains thought the GVC Typology could help better understand these trends and the specifics of how and why they are happening. They also note the interplay between governance and “upgrading” (increasing sophistication in a nation’s manufacturing base as a result of supply chain governance) – to what extent do the typology

E-mail address: ashenbb@muohio.edu.

¹ As of this writing, the article in question (Gereffi et al., 2005) has over 5000 Google Scholar citations, nearly 1700 cites in Scopus, and 1274 from the Web of Science. Some of the work leading to the typology has also been highly impactful (e.g., Gereffi, 1999, with nearly 3700 citations).

<http://dx.doi.org/10.1016/j.pursup.2017.06.002>

Received 20 August 2015; Received in revised form 8 June 2017; Accepted 14 June 2017
1478-4092/ © 2017 Elsevier Ltd. All rights reserved.

dimensions also help explain these phenomena?

Simply put, an empirical assessment of the GVC Typology will provide a powerful tool to conduct research within the SCM field and to help bridge the gap between our field and the many others it has influenced. The research questions that focus this empirical assessment are:

RQ1: Does the GVC Typology accurately reflect the supply chain governance patterns observed in various industries?

RQ2: Does the GVC Typology exhibit predictive power when empirically tested in a theory-driven framework?

The rest of this paper is organized as follows. The section below briefly reviews the literature on supply chain governance and delves deeper into the specifics of the GVC Typology. It then utilizes information-processing theory to suggest hypotheses for testing the typology against other constructs in a nomological network. Subsequent sections detail the methodology for empirical assessment, the results, and discuss their implications. The paper closes with contributions, limitations and a call for future research.

2. Hypothesis development

Readers familiar with construct validation methods will note that the research questions above are aimed at measuring concepts analogous to face and nomological validity checks for individual scales and indexes. This is in essence what this paper aspires to do: empirically assess the GVC Typology's "face validity" – does it conform to reality? (RQ1), and "nomological validity" – can its elements be used to make successful predictions? (RQ2).

As such, this paper's literature review is necessarily truncated. There is an extensive literature on supply chain governance, a review of which is not feasible here; please see the footnote below regarding this body of work.² This paper focuses on an empirical assessment of the GVC Typology, and so the subsequent subsections discuss this typology in greater detail, and then lay out a series of theory-driven hypotheses to test its predictive

2.1. The GVC Typology

The GVC Typology utilizes three key dimensions to classify supply chains: (1) the complexity of transactions conducted with suppliers, (2) the ease with which these transactions can be standardized or codified, and (3) the general level of capabilities in the supply base.

Transaction complexity refers to the complexity of information and knowledge transfer that would be required to sustain the transaction in question (e.g., detailed product specifications, special requirements, etc.). It specifically captures the extent of "non-price information flowing across the inter-firm boundary" (Gereffi et al., 2005 p. 85). "Ability to codify" refers to ease with which complex information and knowledge can be encapsulated for efficient transfer between parties without creating the necessity for transaction-specific investments. Last, "supply base capabilities" indicate the competence of suppliers (relative to the focal firm) in providing the outsourced item or service in question.

By assigning these three dimensions a value of "high" or "low," the

² For those interested in a supply chain governance literature review, the "pre-Gereffi" sources tend to lead back to the work of Jan Heide and Oliver Williamson. See Heide (1994) for a governance definition, and Heide and John (1990) for a discussion of strategic alliances. Williamson (1991) is a good start for a treatment of TCE and its relation to governance. More recent SCM-related work on governance includes Møllering (2003), Olsen et al. (2005), Jain and Dubey (2005), Fawcett et al. (2006), Ryu et al. (2007), Richey et al. (2010) and Caniels et al. (2012). Overall, there is broad agreement among SCM scholars that understanding supply chain governance is important for understanding firm performance, a sentiment with which the authors of this paper agree.

GVC Typology posits five supply chain governance structures: market, modular, relational, captive, and hierarchy (see Figure 1). As one moves through these types, supplier switching costs increase, and as such the amount of explicit coordination and power asymmetry increase as well. On one end, market structures with low transaction complexity, high codification ability and highly capable suppliers are characterized by relatively simple, contractually-governed market relations. At the other end, high complexity coupled with low codification ability and low supply base capabilities drive a reluctance to outsource at all. In the middle, low codification ability coupled with highly capable suppliers ensures a more relational form of governance, where contractual terms cannot cover all the nuances of the buyer-supplier relationship.

Modular and captive structures are also mirror images of sorts. Modular structures have a considerable amount of non-price information flowing across business boundaries, but yet "suppliers and customers can be easily linked and de-linked, resulting in a very fluid and flexible network structure" (Gereffi et al., 2005, p. 85). By contrast, captive structures involve powerful lead firms consistently coordinating and controlling the activities of low-capability suppliers.

Three additional types are discarded from the typology. One is when low transaction complexity and high codification ability are found with low competence suppliers (the LHL configuration). About this, Gereffi et al. say "While this does not generate a global value chain type per se, it is a situation that is quite common..." (pp. 100–101, footnote 10). The LHL configuration is labeled "developmental" for this study, due to the fact that the supply base appears in need of supplier development assistance. The other two types (the LLL and LLH configurations) involve low transaction complexity but also a low ability to codify these transactions, an outcome Gereffi et al. propose to be unlikely to occur. To the extent these configurations exist in reality, they are a mystery. The business transactions sought by the buyer should be simple, but something is preventing ease of codification and information flow, regardless of whether the suppliers in general are capable or not. In this study, these are labeled Disconnected-Weak LLL) and Disconnected-Strong (LLH).

Given the above, the first empirical assessment of the GVC Typology may be likened to the establishment of "face" validity – do supply chain structures in reality tend to cluster in the ways predicted? Likewise, are the three types not considered in the typology largely absent? The first hypothesis for consideration is thus a simple "reality check" of the typology versus empirical data:

H1. Real-world supply chain structures will tend to mirror the configurations predicted by the GVC Typology; the three "discarded" supply chain types will not appear (or will be very low in frequency).

2.2. GVC Typology and predictive power: information processing theory as a "nomological validity" check

The five supply chain governance types posited by the GVC Typology are based upon three key dimensions (see above). As these are derived from the existing literature base, the GVC Typology should then also exhibit nomological validity – that is, it should exhibit some predictive power if it is truly be of use to researchers and managers (O'Leary-Kelly and Vokurka, 1998). In their original work, Gereffi et al. do not utilize the typology to make predictions, but the dimensions of transaction complexity, codification ability, and supply base capability are concepts that can (and have been) operationalized into testable constructs.

The issue, then, is to consider appropriate theoretical lenses through which to examine the GVC Typology and to test whether its dimensions (and so its types, indirectly) can be utilized in predictive research. While plausible arguments can be made for a number of theoretical lenses, this study utilizes information-processing theory (IPT) to establish such a framework and to generate and test hypotheses relevant to the dimensions discussed above.

Download English Version:

<https://daneshyari.com/en/article/7426738>

Download Persian Version:

<https://daneshyari.com/article/7426738>

[Daneshyari.com](https://daneshyari.com)