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## Summarizing Risk, Sustainability and Collaboration in Global Supply Chain Management

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### Abstract

The essence of global supply chain management (GSCM) encumbers several different areas of vertical and horizontal operations throughout the chain. The competitive advantages gained through succinct GSCM provide businesses with optimized operations and increase stakeholder value. Development of sustainability, collaboration, and reputational risk initiatives offers multinational corporations (MNCs) capabilities to drive GSCM while limiting supply chain (SC) liabilities. The research showed that MNCs are competing through SCs to increase global market share and customer satisfaction through social, environmental, and economic initiatives. Consistent improvement in these areas affords MNCs with future aims such as delivering renewable resources to developing and emerging markets, less expensive goods, services as SCs improve operations, and cultural awareness as multiple countries and organizations work together. Creating this synergy among SC stakeholders and the environment affords social, environmental, and economic sustainability.

**Keywords:** Global Supply Chain Management; Sustainability; Reputational Risk; Collaboration; Optimization.

### 1. Introduction

The simplest definition of global supply chain management (GSCM) is the movement of goods and services from suppliers to the consumer or end users. Knowledge of GSCM distributes supply chains (SCs) as a unified group of fragmented parts that perform within their respective functions (Katiyar et al., 2018). The SC is system planning to produce goods and services in unison, both upstream and downstream, between suppliers and customers (Katiyar et al., 2018). The SC management philosophy includes the target group, the goals, and the means of achieving organizational goals (Makarius and Srinivasan, 2017). Successful integration strategies and coordination efforts produce efficient SCs increasing intrinsic value (Michalski et al., 2018). The significance of GSCM research in operations pertains to both multinational corporations (MNCs) as well as micro-companies to develop system planning strategies to produce efficient operations. The importance of GSCM research supports organizations, large and small, with cost reduction, management, information sharing, corporate social responsibility, and market sensitivity (Ji et al., 2014; Liao et al., 2017). GSCM is noteworthy to the success of all modern enterprises seeking competitive advantages in the global marketplace. Figure 1 and Figure 2 depict graphical representations of the literature review.

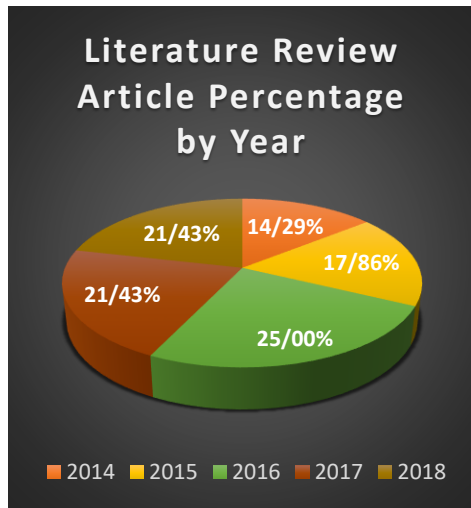


Figure 1. Literature review article percentage by year

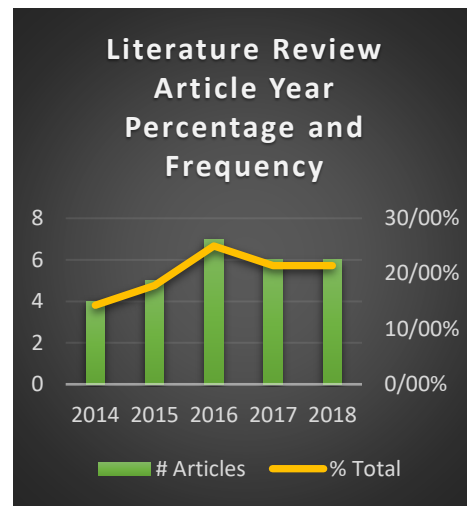


Figure 2. Literature review article year percentage and frequency

## 2. Conceptual Framework

In 1958, Jay Forrester derived the conceptual definition of SCM in which he showed a correlation and corroboration between distribution management and organizational relationships (Ekanayake et al., 2017; Gibson et al., 2016; Mor et al., 2015). Throughout GSCM, MNCs are seeking competitive advantages in the farthest parts of the globe connecting suppliers and consumers (Kumar and Banerjee, 2014; Liao et al., 2017). The benefits of this research highlighted the issues and solutions in GSCM offering insight on the challenges faced by stakeholders (Mani and Gunasekaran, 2018; Marshall et al., 2015). Joint efforts among different GSCM partners supports continuous improvement and sustainability initiatives (Chaudhuri et al., 2018; Gold and Schleper, 2017). The corroboration of concerns within GSCM shows the challenges that MNCs face while gaining market share and retaining stakeholders (Essabbar et al., 2016; Marshall et al., 2015). This qualitative study related these issues with extant research along with practicum and interpretation of potential solutions. Identification of issues supports SC effectiveness and efficiency as perceived by the customer while advancing competitive advantages. GSCM research conveyed several indicators through distinct issues such as reputational risk, sustainability, and collaboration to increase intrinsic value.

### 2.1. Reputational Risk

Business leaders in GSCM view reputational risk as the possibility of losing business based solely on some SC partners perceptions of organizational demand and trustworthiness (Gold et al., 2015; Montshiwa, 2016; Petersen and Lemke, 2015; Roehrich et al., 2014). Roehrich et al. (2014) found that reputational risk impacts MNC managers decision-making when implementing sustainable GSCM. In mining and agricultural industries, Gold et al. (2015) researched slave labor as a by-product of globalization along SCs magnifying reputational risk. Montshiwa (2016) researched and showed for business continuity; risk assessments are necessary to disclose a reputational risk ranking. Contrarily, Petersen and Lemke (2015) analyzed and found that SC managers overlooked reputational risk throughout GSCM. Hence, reputational risk and ethical business practices may yield an impact on SC performance impacting value.

GSCM reputational risk extends into boundaries of ethical and unethical perceived cultural practices as Gold et al. (2015) defined GSCM slave labor to include chattel, debt bondage, and contract slavery. Petersen and Lemke (2015) assessed reputational risk research and found that governance, ethics, environment, and social risk aspects should be included in a GSCM risk assessment plan. Contacting scholars and practitioners, Mani and Gunasekaran (2018) examined reputational risk demands that characterized social sustainability initiatives that impacted successful GSCM through SC stakeholders benefit and security. Thus, GSCM risk assessments plans should include ethical guidelines to mitigate reputational risk while maximizing intrinsic value for stakeholders.

Stakeholder influences and bounded rationality further impact manager decision-making to mitigate reputational risk, effectively (Mani and Gunasekaran, 2018; Roehrich et al., 2014; Rogers and Rodrigo, 2015; Wright, 2016). Wright (2016) researched the concept that firms susceptible to reputational risk influence activist groups to convince their constituents, more efficiently and to improve GSCM practices in targeted firms. Mani and Gunasekaran (2018) also found that reputational risk decreases as MNC stakeholders positively influence social sustainability policies and procedures. Roehrich et al. (2014) showed that managers mitigate reputation risk through bounded rationality balancing competencies, priorities, and resources to implement sustainable GSCM. Moreover, Rogers and Rodrigo (2015) revealed that MNCs decisions to outsource are dependent upon the reputational risk of the outsourced firm. Therefore, prioritizing

stakeholder initiatives with competencies and resources may improve MNC managers decision-making to mitigate reputational risk, increasing GSCM sustainability.

## 2.2. Sustainability

Researchers evaluated sustainability performance through supply chain risk management (SCRM), flexibility, and demand volatility (Almeida et al., 2017; Chaudhuri et al., 2018; Gold and Schleper, 2017; Murphy and O'Brien, 2014). Murphy and O'Brien (2014) suggested successful sustainability initiatives needed decision models that required proper capital investments. Chaudhuri et al. (2018) researched and found that external integration controlled by SCRM impacted manufacturing flexibility, significantly; thus, influencing sustainability. Almeida et al. (2017) stated that sustainable GSCM requires communication, commitment, flexibility, synchronous decision-making, and coordination between SC partners to moderate extreme demand fluctuations. Gold and Schleper (2017) stated that risk-adverse MNCs create sustainable GSCM through reputation building. Thus, organizational flexibility and effective GSCM procedures, such as reputation building, impact sustainability metrics.

The influence of new stakeholders, SC responsibilities and complexities modify GSCM sustainability practices (Katiyar et al., 2018; Kim and Davis, 2016; Marshall et al., 2015). Katiyar et al. (2018) stated that GSCM could be modified into supply chain functions (SCFs), which include planning, sourcing, manufacturing, and delivering. Alternatively, Kim and Davis (2016) found that SC complexity affected securities law viability as the law does not penalize for using specific practices but penalizes for nondisclosure. Marshall et al. (2015) developed eight SC sustainability models and found statistical significance in each model with a higher influence of sustainability initiatives among new MNC stakeholders. Hence, supporting new stakeholder initiatives towards maximizing GSCM sustainability needs coordinated and detailed partner responsibilities.

Prior scholars used various research techniques to show relationships, thematic and numerical, between GSCM and organizational sustainability (Katiyar et al., 2018; Marshall et al., 2015; Mor et al., 2015; Ngai et al., 2018). Marshall et al. (2015) developed mathematical relationships between four environmental and four social SC sustainability initiatives with process-based and market-based practices. Katiyar et al. (2018) also included MNCs social, environmental, and economic indicators to measure sustainability performance. Mor et al. (2015) examined and found four thematic relationships, which included GSCM descriptive features, definitional issues, theoretical concerns, and research approaches. Ngai et al. (2018) showed the relationship between CSR and sustainability through promotion and development of stakeholder initiatives. Appropriately, assessing GSCM sustainability relationships requires further qualitative and quantitative research to increase GSCM sustainability and to maximize intrinsic value.

Social, environmental, and economic indicators affected GSCM sustainability initiatives to measure performance (Silva et al., 2017; Varsei, 2016; Wan Ahmad et al., 2016; Wang and Dai, 2018). Silva et al. (2017) specified that environmental and economic dimensions are focal research topics, globally; and examined those articles about sustainable GSCM from an environmental dimension for sustainability, and an economic dimension for GSCM while both variables controlled by a governance dimension. Wan Ahmad et al. (2016) analyzed the social and environmental dimensions of sustainable GSCM of oil and gas companies and found inconsistencies in sustainability reporting practices because of the lack of objective reporting guidelines. Wang and Dai (2018) assessed GSCM sustainability practices in Chinese firms and found that sustainable GSCM practices impact environmental and social dimension, positively; thus, positively impacting economic performance. Comparatively, Varsei (2016) examined sustainable GSCM from the environmental, economic, and social dimensions and found that academic research highlighted one or two dimensions, and falsely equating green and sustainability with the social dimension. Therefore, social, environmental, and economic indicators are critical to GSCM risk management and sustainability initiatives, which are also impacted by collaborative actions between SC partners.

## 2.3. Collaboration

Scholars conducted research regarding collaborative efforts between GSCM partners to determine the importance of relationship building and networking through power and trust (Almeida et al., 2017; Ekanayake et al., 2017; Essabbar et al., 2016). Essabbar et al. (2016) defined and showed collaborative GSCM power controls as related to French and Raven's definition to the five sources of power being coercive, reward, legitimate, referent, and expert. They also determined power imbalances between GSCM partner collaboration through collective SC partner analyses. Almeida et al. (2017) indicated that internal and external trust along with internal and external collaboration mitigate extreme demand fluctuations. Ekanayake et al. (2017) showed that micro, interpersonal relationships and macro, inter-organizational relationships, dynamics between SC partners influenced GSCM collaboration. Thus, supporting collaborative efforts mandates trust and power control between partners to sustain efficient GSCM performance to increase stakeholder confidence and intrinsic value.

Moreover, collaborative relationships demand elasticity, synchronization, calculation, and integration to sustain efficient GSCM operations (Gibson et al., 2016; Liao et al., 2017; Makarius and Srinivasan, 2017; Michalski et al., 2018). Gibson et al. (2016) showed and found that holistic perspective between senior-level responsibility, proactive commitment to

innovation, collaborative preparation, and substantial influences to transcend relationships and negotiate authoritatively impacted GSCM collaboration between university and industry. Liao et al. (2017) developed the supply chain collaboration value innovation (SCCVI) measurement that includes information sharing, decision synchronization, and incentive alignment, and stated that GSCM collaboration benefits value innovation among SC partners. Makarius and Srinivasan (2017) stated that active GSCM matches demand with supply as researched in the talent management sector, and defined talent supply chain management (TSCM) as optimizing and securing talent supply with human capital demands. Michalski et al. (2018) investigated the relationship between asymmetry and performance through varying levels of collaboration and integration among GSCM partners and found that varying collaboration and integration intensities do not produce adequate GSCM systems. Thus, all firms must recognize sustainable collaborative efforts to maximize performance and intrinsic value.

### 3. Conclusion

As MNCs compete in a shrinking world, GSCM optimization is critical to successful operations. GSCM optimization encourages organizations to improve the areas of reputational risk, sustainability, and collaboration to deliver goods and services to customers yielding successful social, environmental, and economic initiatives. Cost-effective optimization changes the landscape of GSCM structures to compete in an ethical and less expensive SC model for management, employees, and consumers. Over the next three to five years, GSCM will shrink as the lines of communications shorten with technological advancements. GSCM and its relevance in business affect the successes and failures of MNCs. Proper management philosophies support organizational initiatives while enabling the company to understand consumer and market demands. GSCM optimization boosts the MNCs capabilities to achieve competitive advantages. Overall, delivering GSCM optimization between partners through sustainability initiatives mitigates reputational risk exposure from the collaborative efforts among SC stakeholders to increase intrinsic value.

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