

Abstract # 025 – 1134

Ethics issues in supply management: from a literature review to a conceptual framework

Mrs. Jalba Miniussi
Fundação Getulio Vargas
São Paulo - SP
Brazil

Mrs. Janaina Siegler
Fundação Getulio Vargas
Uberlândia - MG
Brazil

Dr. João Mario Csillag
Fundação Getulio Vargas
São Paulo - SP
Brazil

POMS 23rd Annual Conference
Chicago, Illinois, U.S.A.
April 20 to April 23, 2012

1. Introduction

Most of empirical research in Supply Chain Management (SCM) associated with unethical practices or behaviors in the buyer-supplier relationship is concerned to the opportunism, generally under the theoretical lens of transaction costs economics. Although opportunism is considered an unethical behavior, it is not the only one: Carter (2000, p.194) offers an extensive list of unethical practices which may benefit the firm and/or the professional involved in the transaction. Apparently, there are few empirical studies addressing unethical conducts or behaviors in SCM, excepting the opportunism, despite supply chain professionals are probably more vulnerable to unethical choices because there are simply plenty of opportunities to abuse. Facing increasing demands for cost reductions and unattainable goals, supply chain personnel may succumb under such pressure, engaging in unethical practices (Rottig, Koufteros, & Umphress, 2011).

The field of supply management, and in particular procurement, is quite vulnerable to ethical considerations, since procurement personnel are entrusted to spend significant financial resources in many organizations (Carter, 2000). Similar to marketing and sales personnel, procurement professionals are highly exposed to external organizational environment, representing an important risk to the firm reputation and performance when engaged in unethical conducts (Wood, 1995). Additionally, supply chain personnel cannot absolve its responsibility to select, control and monitor its suppliers to assure that they do not violate ethical and legal principles (Amaeshi, Osuji & Nnodim, 2008). In the last two decades, global brands like Nike, GAP, IKEA and Nestlé have been under intense pressure from groups working for responsible supply chain. Since it is difficult to reach the global brands directly, much of the pressure is channeled through the supply chain, targeting the sourcing activities, mainly in developing countries, looking for evidences of exploitation of cheap labor conditions (Amaeshi, Osuji, & Nnodim, 2008).

Recent news have highlighted the investigation conducted by Brazil's ministry of labor against Zara, after a sub-contractor in São Paulo was found to be using employees in sweatshop conditions to make garments for the Spanish company (The Guardian, 18/08/2011; Folha de São Paulo, 19/08/2011). The subsequent 4% fall in the Inditex share prices, the Zara parent company, in addition of the reputational damage, well illustrate how much relevant and current is the ethical issues discussion in supply chain.

A literature review was conducted aiming to collect and analyze all relevant papers complying with empirical studies that address the specific issue of ethics in the buyer-supplier relationship and along the supply chain. As a result of this review, a discussion about how ethical issues in supply chain have evolved is provided and a tentative model is proposed.

2. Review methodology

A literature review is a systematic, explicit and reproducible process that aims identifying, evaluating and interpreting the content of the target documents (Hart, 1998). As a result, the conceptual content of the field can be identified, contributing to the theory development (Meredith, 1993). The structure of this review follows, partially, the structure employed by Burgess, Singh, & Koroglu (2006) to analyze the content of the articles in the following order: the terminology found in the literature is presented, the scope of the review and searching procedures are described, followed by the paper's classification criteria. The results are then presented and discussed.

2.1. Terminology

The theoretical background underlying this review comprises three different fields of knowledge: supply chain management, business ethics, and behavioral ethics. In this study,

the definition of supply chain management used is that offered by Mentzer, DeWitt, Keebler, & Min (2001, p.18):

“Supply chain management is defined as the systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across business within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as whole”.

With this definition, the focus of SCM is on the different levels of analysis and the business operations within the channel from the point-of-origin to the point-of-consumption.

Business ethics pertains to the conceptual field of social responsibility, which has been centered a real debate for decades, showing very different philosophical positions. For example, Friedman (1962) argued that the doctrine of social responsibility is “fundamentally subversive”, asserting: “Few trends could so thoroughly undermine the very foundations of our free society as the acceptance by corporate officials of a social responsibility other than to make as much money for their stockholders as possible” (Friedman, 1962, p.133). Acknowledging the primacy of economic concerns, (McGuire, 1963) accommodates a broader view of the firm’s social responsibility: “The idea of social responsibilities supposes that the corporation has not only economic and legal obligations, but also certain responsibilities to society which extend beyond these obligations” (McGuire, 1963, p. 144). In a slightly different path, Sethi (1975) proposes a set of three dimensions to corporate social responsibility: (1) social obligation, (2) social responsibility, and (3) social responsiveness. Social obligation involves corporate behavior in response to market forces or legal constraints. Social responsibility “implies bringing corporate behavior up to a level where it is congruent with the prevailing social norms, values and expectations” (Sethi, 1975, pp.58-64).

Finally, Carrol (1979) proposed a definition of social responsibility that fully address the entire range of obligations business has to society: “social responsibility must embody the

economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time” (Carrol, 1979, p.500). These four categories are not mutually exclusive, nor are they intended to represent a continuum. According to Carrol (1979), these categories are neither cumulative nor additive. Although all these responsibilities have always simultaneously existed for business organizations, the history suggests an early emphasis on the economic and then legal aspects and a later concern for the ethical and discretionary aspects. For this review purposes, the framework proposed by Carrol (1979, p. 499-500) comprises the concept of ethical responsibility to be used going forward: although the economics and legal responsibilities embody ethical norms, there are “additional behaviors and activities that are not codified into law but nevertheless are expected of business by society’s members”. Important to note that the discretionary responsibilities, as described by Carrol (1979), are those purely voluntary, and the decision to assume them is guided only by a business’s desire to engage in social roles not mandated, not required by law, and not even generally expected of businesses in an ethical sense.

Unethical behavior conceptualization is often found in the decision-making literature. For some authors, unethical intention is used as a proxy of unethical behavior (Kish-Gephart, Harrison, & Trevino, 2010). Unethical intention is defined as the expression of one’s willingness or commitment to engage in an unethical behavior. Unethical behavior is defined as any organizational member action that violates widely accepted (societal) moral norms. These definitions are convergent with recent behavioral ethics literature (Kaptein, 2008; Trevino, Weaver, & Reynolds, 2006). Despite research that address individual-level determinants of ethical and unethical decision making at work has grown significantly in the past few years, a recent meta-analysis on the topic concludes that still little is known about how and under what circumstances individuals make unethical choices. The most studied ethical decision-making framework was proposed by Rest (1986) and comprises a sequence

of elements considered antecedents of an ethical/unethical behavior/decision: moral awareness, moral judgment and moral motivation. Recognizing an ethical issue and solving it means determining whether a specific behavior or decision is right or wrong (Treviño, Weaver, & Reynolds, 2006). In this sense, formal communication of organizational values and principles, by the establishment of codes of conduct and codes of ethics, have been allowed firms express expectations or guidelines for employees regarding a variety of issues (Rottig, et al., 2011).

2.2. Scope of the review and searching procedures

As can be noted in the above discussion, ethics in supply chain management (SCM-ethics) encompasses three different fields: the corporate social responsibility (organizational sciences), the ethical decision-making (moral psychology) and supply chain management (business/operations management). The key words should be chosen in such a way as to cover these three areas: *ethical responsibility* and *corporate social responsibility*, *unethical behavior*, *moral awareness* and *business ethics* resulted in a huge amount of papers without explicit or implicit connotations of a supply chain/buyer-supplier relationship approach. So, the simultaneous use of the above key words associated with *supply chain*, *supply management*, *supply chain management*, *buyer-supplier relationship* in the ISI of Knowledge, accounted less than thirty papers, being only four of empirical nature. A new search in the Google Scholar recovered much more papers, including several related with sustainable supply chain management. Empirical studies related with corporate social responsibility (CSR) related to sustainable supply chain management, reverse logistics, and remanufacturing were not considered. Articles related to CSR in supply chains or focused in SCM-ethics concepts but without an empirical content were also excluded from the review, although they have been useful for informing the researcher about the main concepts in the field. Reading

the papers, cited references were used as a secondary source. Some articles produced in the 1980s and in the beginning of the 1990s were generally found in journals no peer-reviewed, so they were automatically excluded. Finally, 28 empirical studies published in journals peer-reviewed were selected because they dealt with the subject of interest, although in different levels of analysis.

2.3. Classification framework

The articles were analyzed following the Burgess et al. (2006) classification framework, which enable a holistic conceptual and research methodological analysis of the field. Summarized in the Table 1, the grouping 1 provides descriptive features of SCM-ethics literature. The grouping 2 captures the definitional issues; the grouping 3 classifies the articles following their theoretical lens, and the grouping 4 examines issues related to research methodology.

Table 1: Literature review classification framework

Grouping	Content covered	Rationale
1. Descriptive features of SCM-ethics literature	Journal names, impact factor	Describe characteristics of sample of articles
2. Definitional issues	Definitions and level of analysis	Explore consistency or variation in SCM-ethics definitions on a range of dimensions.
	Conceptual framing of SCM-ethics	Define the territory that researchers claim falls within SCM-ethics
	Constructs of SCM-ethics	
3. Theoretical concerns	Theoretical perspective	Determine the range of theories that are used to inform SCM-ethics
	Purpose of theory	
4. Research methodological issues	Paradigmatic stance	Determine the methodological assumptions being made and the types of research methods used to explore SCM-ethics
	Research methods	

Source: based on Burgess et al. (2006)

Although this framework provides a method to check for logical links and connections (Burgess, et al., 2006), the small number of articles recovered may limit the verification of conceptual consistency.

3. Results

3.1. Descriptive features of SCM-ethics literature

The earlier article found was from 1990 and the latest, from 2011. A significant part of the articles (43%) was published after 2008. The Table 2 summarizes the list of journals: 46% of the articles (13) were found in periodicals related to operations management, 32% (9) in the Journal of Business Ethics, 18% (5) in management journals and 1 article in a psychology journal. The complete list of articles can be seen in the Appendix A.

Table 2: Journals titles and respective impact factors

Sigla	Journal's titles	Number of articles	Impact factor (JCR) 2010
CGIJBS	Corporate Governance: the International Journal of Business in Society	1	2,753
DS	Decision Sciences	1	2,233
IJPDLM	International Journal of Physical Distribution & Logistics Management	1	2,617
IMM	Industrial Marketing Management	1	1,694
JAP	Journal of Applied Psychology	1	3,977
JBE	Journal of Business Ethics	9	1,125
JBL	Journal of Business Logistics	2	3,905
JCP	Journal of Cleaner Production	2	n.m.
JIBS	Journal of International Business Studies	1	4,184
JM	Journal of Management	1	3,758
JOM	Journal of Operations Management	3	5,093
JSCM	Journal of Supply Chain Management	2	5,853
SCMIJ	Supply Chain Management: An International Journal	2	2,484
TRPE	Transportation Research Part E	1	1,954

Note: n.m. = “not mentioned”

3.2. Definitional issues

From a methodological point of view, literature review can be comprehended as content analysis, where quantitative and qualitative aspects are mixed to assess structural (descriptive) as well as content criteria (Brewerton & Millward, 2001). In a quick look, the 28 articles seemed to show the evolution of a macro theme: ethics in supply chain. However, from a more careful reading emerged a factor that enabled to identify the different conceptual domains and their evolutions.

3.2.1. Level of analysis

The key factor is the level of analysis. As can be seen in the Table 3, there are three levels of analysis in the articles reviews: the individual, the relational and the supply chain approach.

The individual approach is related to the antecedents and outcomes associated with unethical decisions of a professional, often concerned to the procurement professional from the buyer side or the seller from the supplier side.

The relational level of analysis is clearly related to a stakeholder approach. The concept of corporate social responsibility is largely explored in most of the papers, bringing the ethics to an organizational level, rather than an individual level. Buyer-supplier relationship is often the unit of analysis of these articles.

Table 3: Classification of the articles following the level of analysis

Level of analysis	Articles reference numbers (Appendix A)	Count
Individual	[1][3][8][18][22][24][25][26][27][28]	10
relational	[4][5][6][9][13][14][15][16][17][20][21][23]	12
supply chain	[2][7][10][11][12][19]	6

The supply chain level of analysis appears in more recent papers and is concerned with the several relationships present along the supply chain. The stakeholder approach is largely present, stressing the role and the responsibility boundaries of a focal company along the

supply chain. The Table 4 presents the articles classified according the level of analysis over time.

Table 4: Distribution of the papers over time according the level of analysis

	individual	relational	supply chain
1990-1999	[25] [26] [27] [28]		
2000-2003	[22] [24]	[20] [21] [22]	[19]
2004-2007	[18]	[13] [14] [15] [16] [17]	
2008-2011	[1] [3] [8]	[4] [5] [6]	[2] [7] [10] [11] [12]

The Figure 1 presents the amount of papers over time, allowing noting that research focused in the individual level of analysis remains since the 1990s, slightly rising in the last three years. Yet research focused in the relational and supply chain level of analysis is more recent.

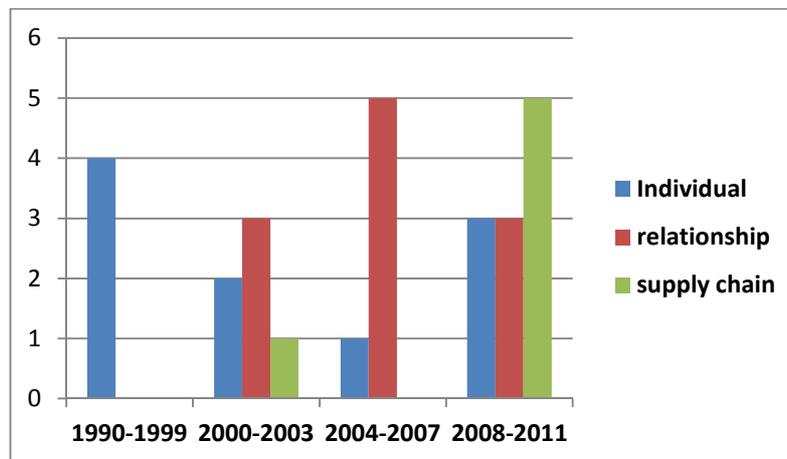


Figure 1: Distribution of the papers over time according to the level of analysis

3.2.2. Definitions

The definitions – when found – seem to follow the rationale of level of analysis categorizations: the articles with individual and relational approach generally used the terms “unethical behavior” or “unethical decision” or “unethical practices”, or even the euphemism “questionable practices” (Moberg & Speh, 2003; Razzaque & Hwee, 2002). As ethicality is perceived as an abstract concept, most of the authors offered a definition, implicit or explicit

of unethical behavior in the workplace, some of them presenting examples about differences between illegal and unethical practices (Cooper, Frank, & Kemp, 1997, 2000; Husted, Dozier, McMahon, & Kattan, 1996; Tadepalli, Moreno, & Trevion, 1999). The review showed a reasonable degree of convergence among these papers about the meaning of unethical behavior, already presented in the introduction section.

A definition for ethics in supply chain management (SCM-ethics) was sought in the reviewed articles, mainly in those presenting the supply chain level of analysis. The paper produced by (Svensson & Baath, 2008), “Supply chain management ethics: conceptual framework and illustration”, despite the title, a definition of SCM-ethics was not presented. Of course, the concept of SCM-ethics is captured along the text, whilst the authors present the foundations of the proposed framework. In short, SCM-ethics may be distinguished by four different orientations:

- (1) *Relationship orientation* refers to the vertical unions of ethical values and principles (EVP) of corporate behavior and business operations, i.e. within a supply chain, but limited to direct connections to others’ EVP in SC, as such suppliers and customers (dyads).
- (2) *Channel orientation* refers to the vertical unions between EVP of corporate behavior and business operations within a SC. It also comprises others connections in SC, such as suppliers’ suppliers, customers’ customers or beyond. So, it includes all the supply chain members.
- (3) *Competition (or comparative) orientation*: it considers the horizontal unions of EVP between supply chains. It comprises direct connections to EVP in other supply-chains. This is a broadened approach of SCM-ethics.

- (4) *Environment orientation*: It comprises indirect connections to EVP in the society. This is the broadest approach of SCM-ethics compared to the previous orientations.

3.2.3. Analyzing the constructs

A large diversity of constructs was found, mainly in the articles pertaining to the supply chain level of analysis. Table 6 summarizes the constructs, not always explicit, since all studies have a qualitative approach. This apparent lack of convergence in constructs,

Table 4: Summary of articles (individual level of analysis)

Author	Type of empirical research	Constructs	Theoretical approach	Perspective
Rottig et al., 2011	Survey	moral awareness, moral judgment and moral intention	moral psychology	Antecedents
Kish-Gephart, 2010	Meta-analysis	<u>Individuals characteristics</u> : cognitive moral development, idealism, relativism, Machiavellianism, locus of control, job satisfaction. <u>Moral issue characteristics</u> : concentration of effect, magnitude of consequences, probability of effect, proximity, social consensus, temporal immediacy, general moral intensity. <u>Organizational environment characteristics</u> : egoistic ethical climate, benevolent ethical climate, principled ethical climate, ethical culture, code of conduct, code enforcement.		Antecedents
Wasioleski & Weber, 2009	Experiment	ethical reasoning, job function	evolutionary psychology	Antecedents
Carter, 2004	Survey	PSR is five-dimension construct: diversity, environment, human rights, philanthropy and community, and safety.	not clear	not applied
Razzaque & Hwee, 2002	Survey	Antecedents of perception of ethical dilemmas	not clear	Antecedents
Cooper et al., 2000	Survey	Unethical practices	not clear	Antecedents
Tadepalli et al., 1999	Survey	perception of ethical situations	not clear	Antecedents
Cooper et al., 1997	Survey	Unethical practices	not clear	Antecedents
Husted et al., 1996	Survey	Moral reasoning	Social cognitive theory	Antecedents
Forker, 1990	Survey	not clear	not clear	Antecedents

theoretical approach and perspectives along these studies is suggestive of an incipient stage of theory development. Otherwise, more consistencies are found among the articles related to the

individual approach (Table 4). The articles from the relational group present an intermediary condition (Table 5). A recent meta-analysis focused in individual level of analysis suggests that this research branch is presently the more developed (Kish-Gephart, et al., 2010).

Table 5: Summary of articles (relational level of analysis)

Autor	Journal	Type of empirical research	Constructs	Theoretical approach	Perspective
Strand, 2009	JBE	Case Study (4)	partnership, honesty, trust-based relationship, cooperative advantage	not clear	Antecedents and outcomes
Halter et al., 2009	JBE	Case Study (1)	Transparency of SCM, ethics and communication	not clear	Antecedents
Hill et al., 2009	JOM	Survey	subtle and deceitful unethical behaviors, trust and psychological contract violation	not clear	Antecedents
Kaptein, 2008	JM	Survey	unethical behavior related to financiers, customers, employees, suppliers, and society	stakeholder theory	Antecedents
Perrini et al., 2007	JBE	Survey	environmental management, employment, supply chain, local community, controlling & reporting, community volunteering	Stakeholder theory	Antecedents
Bendixen & Abratt, 2007	JBE	Case Study + Survey	Ethical standards, candid relationships	not clear	Antecedents
Griffith et al., 2006	JOM	Survey	Procedural Justice, distributive justice, long-term orientation and relational behavior	Social exchange theory	Antecedents
Carter, 2005	IJPDLM	Survey	PSR, supplier performance, organizational learning and cost reduction	Stakeholder Theory, Resource Base View	Antecedents and outcomes
Carter & Jennings, 2004	JBL	Survey	PSR drivers and dimensions	Stakeholder Theory	Antecedents
Moberg & Speh, 2003	JBL	Survey	Questionable practices in SC relationships, trust, and commitment.	not clear	Outcomes
Carter & Jenning, 2002	TRPE	Survey	Purchasing Social Responsibility (PSR), Buyers' Trust, Buyers' Commitment, Cooperation and Supplier's performance	Stakeholder Theory	Outcomes
Carter, 2000	JOM	Survey	Deceitful practices, subtle practices	Social Exchange theory	Outcomes

Another interesting point is the different perspective found in the articles: most of them (19 of 28) test the constructs as antecedents to an unethical practice, behavior or intention. Five of them consider the outcomes of an ethical practice, and only two present a double approach: antecedents and outcomes (see Tables 4, 5 and 6).

Table 6: Summary of articles (supply chain level of analysis)

Author	Type of empirical research	Constructs	Theoretical approach	Perspective
Cilibert et al., 2011	Case Study (4)	power, adverse selection and moral hazard	Agency Theory	Outcomes
Svensson, 2009	Case Study (2)	transparency in SCM-ethics	not clear	Antecedents
Cilibert et al., 2008	Case Study (5)	suppliers' dependence, relationship duration, practices towards suppliers	not clear	Antecedents
Svensson & Baath, 2008	Case Study (2)	Values & principles, code of conduct communication, external threat, external opportunities, relationship	not clear	not applied
Tencati et al., 2008	Case Study (25)	CSR implementation outcomes: higher quality of management, higher productivity, lack of long-term financial sustainability	Stakeholder theory	Outcomes
Roberts, 2003	Case Study (3)	reputational vulnerability and power of SC members	not clear	Antecedents

4. Research methodological issues

4.1. Theoretical background

To develop a better understanding, the articles were analyzed to determine, in the first instance, if a theoretical perspective was apparent. Those articles that seemed to reflect theoretical perspectives were classified following the list of theories suggested by (Amundson, 1998). A glance over the Tables 4, 5 and 6, allows noticing that 55% of the articles present no apparent theory. Theories rooted in psychology are prevalent in those articles pertaining to the individual level of analysis.

Yet the articles from the relational branch with theoretical background declared, 42% (5) used the stakeholder theory and two of them, social exchange theory. Finally, only two of the six articles acknowledged as supply chain level of analysis group declared their background: stakeholder theory and agency theory.

4.2. Methodological approach

The Figures 2 and 3 provide a panoramic view about the amount of case studies, surveys and experiment over time and over level of analysis. As case research usually provides a means of studying emergent practices, leading to theory development (Voss, 2009), the prevailing case methodological approach in the articles from the supply chain level of analysis group, confirms the very early stages of SCM-ethics development.

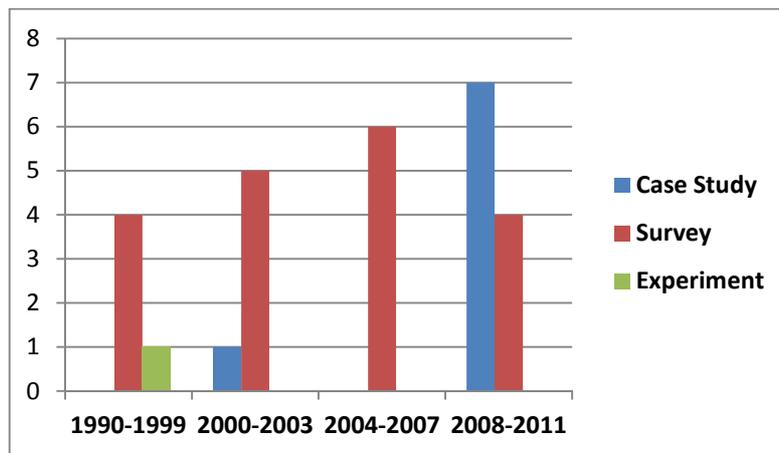


Figure 2: Methodological approaches over time

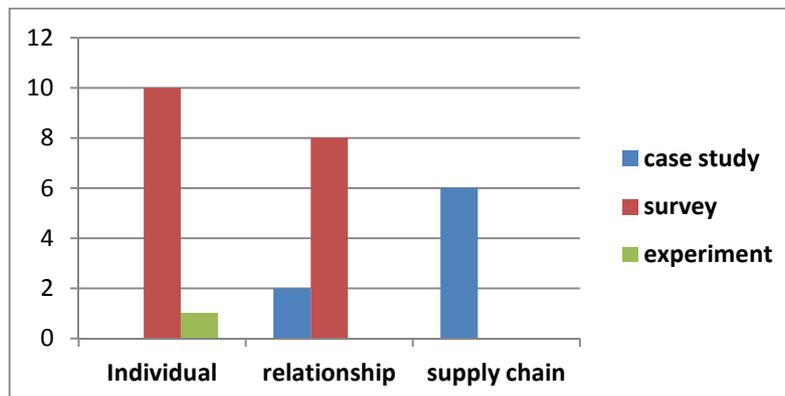


Figure 3: Methodological approach versus level of analysis

The content of the articles pertaining to the individual and relational level of analysis groups, where survey represents the prevalent methodological approach, allows noticing the (still) exploratory nature of these quantitative studies. However, the meta-analysis carried out by Kish-Gephart (2010) is a strong evidence of a relative maturity in theory-building of the

individual level of analysis group, when compared to the relational level of analysis. Finally, the Table 7 provides a fast search for papers according the methodological approach and level of analysis.

Table 7: Articles according methodological approach and level of analysis

	Individual	relationship	supply chain
case study		[4][5]	[2][7][10][11][12][19]
survey	[1][3][6][18][22][24][25][26][27][28]	[13][14][15][16][17][20][21][23]	
experiment	[8]		

5. A tentative model of ethics in SCM

As discussed above, the theoretical development of ethics in the supply chain may be classified as an incipient stage, given the low degree of convergence in constructs. It is clear that any tentative model may comprise the three different levels of analysis: individual, relational and SC levels.

The literature review carried out allowed identifying a certain maturity in theory-building of the individual level of analysis, when compared to the others levels of analysis groups, mainly for the research conducted by (Kish-Gephart, Harrison, & Trevino, 2010), This study offers a meta-analysis of the antecedents associated with unethical decisions in organizations, covering 30 years of research to examine individual ("bad apple"), moral issue ("bad case"), and organizational environment ("bad barrel"), considered as antecedents of unethical choices. Findings provide empirical support for several foundational theories and paint a clearer picture of relationships characterized by mixed results. Structural equation modeling revealed the complexity (multi-determined nature) of unethical choice, as well as a need for research that simultaneously examines different sets of antecedents. The constructs were organized in three groups: (1) Individuals characteristics: cognitive moral development,

idealism, relativism, Machiavellianism, locus of control, job satisfaction; (2) Moral issue characteristics: concentration of effect, magnitude of consequences, probability of effect, proximity, social consensus, temporal immediacy, general moral intensity; (3) Organizational environment characteristics: egoistic ethical climate, benevolent ethical climate, principled ethical climate, ethical culture, code of conduct, code enforcement. Findings suggest a need to more strongly consider a new "ethical impulse" perspective in addition to the traditional "ethical calculus" perspective (Kish-Gephart et al., 2010).

Most of the studies classified to the relational level of analysis presents "trust" as a central construct (see Table 5). Several and different approaches are used to identify antecedents and outcomes of a breach of trust. For example, Hill et al. (2009) examine the psychological contract violations, which partially mediate the effect of unethical behavior on trust. There is the presence of a statistically significant direct effect of subtle unethical behaviors on trust, one that is not fully mediated by feelings of psychological contract violation. One plausible explanation is attributable to the theory of motivated blindness (Gino, Moore, & Bazerman, 2008), a subcategory of bounded rationality. Feelings of psychological contract violation by the supplier maybe bypassed if the unethical actions are serving the supplier's own self-interest. The perceived act is to the supplier's advantage and they will make the rational (cognitive) decision to ignore it (Hill et al., 2009).

The set of studies classified as SC level of analysis showed different constructs and approaches. One of the most interesting approaches is offered by Roberts (2003). The study investigates why ethical sourcing codes of conducts have been implemented so much more successfully in some sectors than others. The author examines the relationship between CSR, reputation, power and supply network conditions in three different supply networks - branded clothes and footwear, forest products and branded confectionary (chocolate) - and identifies the main factors that affect the propensity to introduce an ethical code of conduct: (1) Number

of links of the supply network between the member demanding code and the member under scrutiny; (2) Number of members of stage supply network under scrutiny; (3) Reputational vulnerability of different network members; (4) Power of different members of supply network. As a conclusion, the author posits that at an operational level, implementing ethical sourcing initiatives may require new roles for procurement staff, building the capacity of the procurement function to manage environmental and social issues in their supply chain and engaging in effective relationship with different members of the SC and other external organizations such as non-governmental organizations (Roberts, 2003).

On the assumption that the SC level comprises the relational and individual levels of analysis, a tentative model can be schematized as showed in the Figure 4.

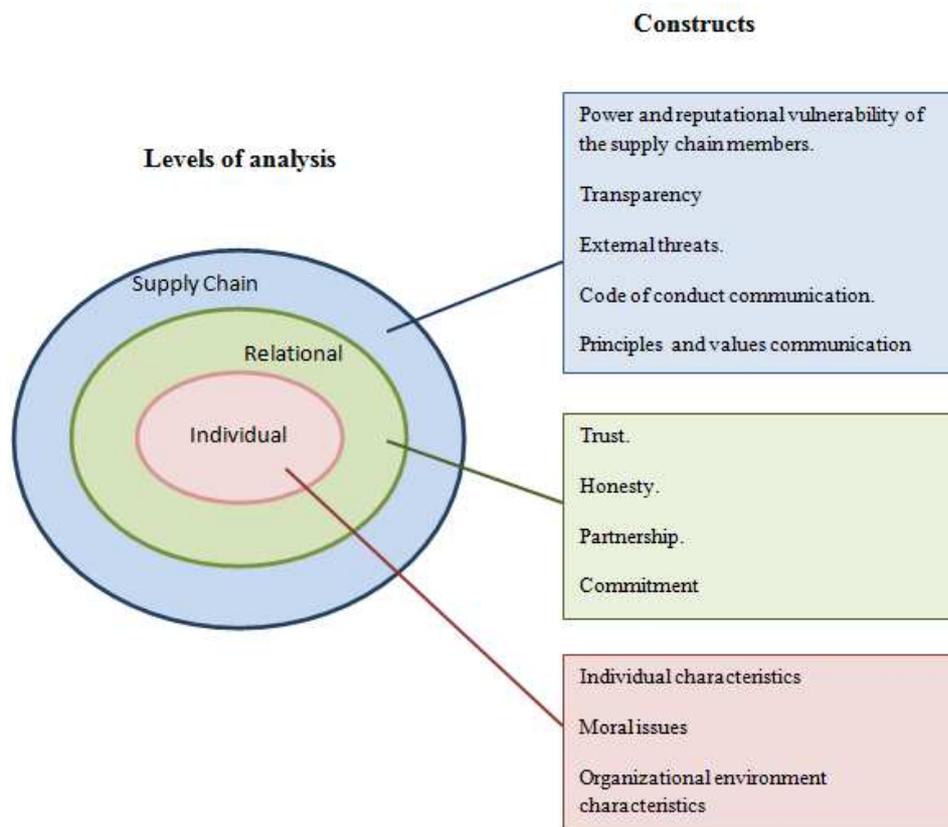


Figure 4: a tentative model about ethics in supply chain management

6. Conclusions

This study, through a systematic review of literature, provides insights into the conceptualization and research methodological bases of the multi-disciplinary field of ethics in the supply chain management. Although in an incipient way, a model is proposed to try to understand this complex and multi-disciplinary issue. Concerning the articles sample analyzed, the empirical work developed in ethical behavior and corporate social responsibility seems to be in a more advanced position than research in supply chain ethics, whilst a conceptual wire driving may link the three areas.

The low number of articles recovered from this peer-review journals searching can lead to two different conclusions: first, the current artifacts of searching, as ISI of Knowledge and Google Scholar, have been performed ineffectively. Second, the amount of empirical research is truly low, although the diversity of constructs may constraint the theory-building process. Other relevant challenge is the different levels of analysis, mainly when an expanded supply chain is considered. These considerations represent an important limitation to this study. From this initial model, several lines of research can be conducted in the future.

References

- Amaeshi, K., Osuji, A., & Nnodim, P. (2008). Corporate social responsibility in supply chains of global brands: a boundaryless responsibility? Clarifications, exceptions and implications. *Journal of Business Ethics*, 81(1), 223-234.
- Amundson, S. D. (1998). Relationships between theory-driven empirical research in operations management and other disciplines. *Journal of Operations Management*, 16(4), 341-359.
- Brewerton, P., & Millward, L. (2001). *Organizational research methods*. London: Sage.
- Burgess, K., Singh, P. J., & Koroglu, R. (2006). Supply chain management: a structured literature review and implications for future research. *International Journal of Operations & Production Management*, 26(7), 703-729. doi: 10.1108/01443570610672202
- Carrol, A. B. (1979). A three-dimensional conceptual mode of corporate social performance. *Academy of Management Review*, 4(4), 497 - 505.
- Carter, C. R. (2000). Ethical issues in international buyer-supplier relationships: a dyadic examination. *Journal of Operations Management*, 18(2), 191-208. doi: 10.1016/s0272-6963(99)00016-9
- Cooper, R., Frank, G., & Kemp, R. (1997). The Ethical Environment Facing the Profession of Purchasing and Materials Management. *Journal of Supply Chain Management*, 33(2), 2-11.

- Cooper, R., Frank, G., & Kemp, R. (2000). A multinational comparison of key ethical issues, helps and challenges in the purchasing and supply management profession: the key implications for business and the professions. *Journal of Business Ethics*, 23(1), 83-100.
- Friedman, M. (1962). *Capitalism and freedom*. Chicago: University of Chicago Press.
- Gino, F., Moore, D.A., Bazerman, M.H., 2008. See no evil: when we overlook other people's unethical behavior. Working paper.
- Hart, C. (1998). *Doing a literature review*. London: SAGE.
- Husted, B. W., Dozier, J. B., McMahon, J. T., & Kattan, M. W. (1996). The impact of cross-national carriers of business ethics on attitudes about questionable practices and form of moral reasoning. *Journal of International Business Studies*, 27(2), 391-411. doi: 10.1057/palgrave.jibs.8490141
- Kaptein, M. (2008). Developing a measure of unethical behavior in workplace: a stakeholder perspective. *Journal of Management*, 34(5), 978-1008.
- Kish-Gephart, J. J., Harrison, D. A., & Trevino, L. K. (2010). Bad Apples, Bad Cases, and Bad Barrels: Meta-Analytic Evidence About Sources of Unethical Decisions at Work. *Journal of Applied Psychology*, 95(1), 1-31. doi: 10.1037/a0017103
- McGuire, J. (1963). *Business and society*. New York: McGraw-Hill.
- Mentzer, J., DeWitt, W., Keebler, J., & Min, S. (2001). Defining supply chain management. *Journal of Business Logistics*, 22(2), 1-25.
- Meredith, J. (1993). Theory building through conceptual methods. *International Journal of Operations & Production Management*, 13(5), 3-11.
- Moberg, C., & Speh, T. (2003). Evaluating the relationship between questionable business practices and the strength of supply chain relationships. *Journal of Business Logistics*, 24(2), 1-19.
- Razzaque, M. A., & Hwee, T. P. (2002). Ethics and purchasing dilemma: A Singaporean view. *Journal of Business Ethics*, 35(4), 307-326. doi: 10.1023/a:1013853021571
- Rest, J. (1986). *Development in judging moral issues*. Minneapolis: University of Minnesota Press.
- Roberts, S.(2003) Supply chain specific? Understanding the patchy success of ethical sourcing initiatives. *Journal of Business Ethics*, 44, 159-170.
- Rottig, D., Koufteros, X., & Umphress, E. (2011). Formal Infrastructure and Ethical Decision Making: An Empirical Investigation and Implications for Supply Management. *Decision Sciences*, 42(1), 163-204. doi: 10.1111/j.1540-5915.2010.00305.x
- Sethi, S. (1975). Dimensions of corporate social responsibility. *California Management Review*, 17(3), 58-64.
- Svensson, G., & Baath, H. (2008). Supply chain management ethics: conceptual framework and illustration. *Supply Chain Management-an International Journal*, 13(6), 398-405. doi: 10.1108/13598540810905651
- Tadepalli, R., Moreno, A., & Trevino, S. (1999). Do American and Mexican purchasing managers perceive ethical situations differently? An empirical investigation. *Industrial Marketing Management*, 28(4), 369-380. doi: 10.1016/s0019-8501(98)00029-7
- Treviño, L., Weaver, G., & Reynolds, S. J. (2006). Behavioral Ethics in Organizations: A Review. *Journal of Management*, 32(6), 951-990.
- Trevino, L. K., Weaver, G. R., & Reynolds, S. J. (2006). Behavioral ethics in organizations: A review. *Journal of Management*, 32(6), 951-990. doi: 10.1177/0149206306294258
- Voss, C. (2009). Case research in operations management. In C. Karlsson (Ed.), *Researching Operations Management* (pp. 162-195). New York: Routledge.
- Wood, G. (1995). Ethics at the purchasing/sales interface: an international perspective. *International Marketing Review*, 12(4), 7-19.

Appendix A

1. Rottig, D., X. Koufteros, and E. Umphress, *Formal Infrastructure and Ethical Decision Making: An Empirical Investigation and Implications for Supply Management*. Decision Sciences, 2011. **42**(1): p. 163-204.
2. Ciliberti, F., et al., *CSR codes and the principal-agent problem in supply chains: four case studies*. Journal of Cleaner Production, 2011. **19**(8): p. 885-894.
3. Kish-Gephart, J.J., D.A. Harrison, and L.K. Trevino, *Bad Apples, Bad Cases, and Bad Barrels: Meta-Analytic Evidence About Sources of Unethical Decisions at Work*. Journal of Applied Psychology, 2010. **95**(1): p. 1-31.
4. Strand, R., *Corporate Responsibility in Scandinavian Supply Chains*. Journal of Business Ethics, 2009. **85**: p. 179-185.
5. Halter, M.V., M.C. Coutinho de Arruda, and R.B. Halter, *Transparency to Reduce Corruption?* Journal of Business Ethics, 2009. **84**: p. 373-385.
6. Hill, J.A., et al., *The effect of unethical behavior on trust in a buyer-supplier relationship: The mediating role of psychological contract violation*. Journal of Operations Management, 2009. **27**(4): p. 281-293.
7. Svensson, G., *The transparency of SCM ethics: conceptual framework and empirical illustrations*. Supply Chain Management-an International Journal, 2009. **14**(4): p. 259-269.
8. Wasieleski, D.M. and J. Weber, *Does Job Function Influence Ethical Reasoning? An Adapted Wason Task Application*. Journal of Business Ethics, 2009. **85**: p. 187-199.
9. Kaptein, M., *Developing a measure of unethical behavior in workplace: a stakeholder perspective*. Journal of Management, 2008. **34**(5): p. 978-1008.
10. Ciliberti, F., P. Pontrandolfo, and B. Scozzi, *Investigating corporate social responsibility in supply chains: a SME perspective*. Journal of Cleaner Production, 2008. **16**(15): p. 1579-1588.
11. Svensson, G. and H. Baath, *Supply chain management ethics: conceptual framework and illustration*. Supply Chain Management-an International Journal, 2008. **13**(6): p. 398-405.
12. Tencati, A., A. Russo, and V. Quaglia, *Unintended consequences of CSR: protectionism and collateral damage in global supply chains: the case of Vietnam*. Corporate Governance: the International Journal of Business in Society, 2008. **8**(4): p. 518-531.
13. Perrini, F., A. Russo, and A. Tencati, *CSR strategies of SMEs and large firms. Evidence from Italy*. Journal of Business Ethics, 2007. **74**(3): p. 285-300.
14. Bendixen, M. and R. Abratt, *Corporate identity, ethics and reputation in supplier-buyer relationships*. Journal of Business Ethics, 2007. **76**(1): p. 69-82.

15. Griffith, D.A., M.G. Harvey, and R.F. Lusch, *Social exchange in supply chain relationships: The resulting benefits of procedural and distributive justice*. Journal of Operations Management, 2006. **24**(2): p. 85-98.
16. Carter, C.R., *Purchasing social responsibility and firm performance*. International Journal of Physical Distribution & Logistics Management, 2005. **35**(3): p. 177-194.
17. Carter, C.R. and M.M. Jennings, *The role of purchasing in corporate social responsibility: a structural equation analysis*. Journal of Business Logistics, 2004. **25**(1): p. 125-146.
18. Carter, C.R., *Purchasing and social responsibility: a replication and extension*. Journal of Supply Chain Management, 2004. **40**(4): p. 4-16.
19. Roberts, S., *Supply Chain Specific? Understanding the patchy success of ethical sourcing initiatives*. Journal of Business Ethics, 2003. **44**: p. 159-170.
20. Moberg, C. and T. Speh, *Evaluating the relationship between questionable business practices and the strength of supply chain relationships*. Journal of Business Logistics, 2003. **24**(2): p. 1-19.
21. Carter, C.R. and M.M. Jennings, *Social responsibility and supply chain relationships*. Transportation Research Part E-Logistics and Transportation Review, 2002. **38**(1): p. 37-52.
22. Razzaque, M.A. and T.P. Hwee, *Ethics and purchasing dilemma: A Singaporean view*. Journal of Business Ethics, 2002. **35**(4): p. 307-326.
23. Carter, C.R., *Ethical issues in international buyer-supplier relationships: a dyadic examination*. Journal of Operations Management, 2000. **18**(2): p. 191-208.
24. Cooper, R., G. Frank, and R. Kemp, *A multinational comparison of key ethical issues, helps and challenges in the purchasing and supply management profession: the key implications for business and the professions*. Journal of Business Ethics, 2000. **23**(1): p. 83-100.
25. Tadepalli, R., A. Moreno, and S. Trevion, *Do American and Mexican purchasing managers perceive ethical situations differently? An empirical investigation*. Industrial Marketing Management, 1999. **28**(4): p. 369-380.
26. Cooper, R., G. Frank, and R. Kemp, *The Ethical Environment Facing the Profession of Purchasing and Materials Management*. Journal of Supply Chain Management, 1997. **33**(2): p. 2-11.
27. Husted, B.W., et al., *The impact of cross-national carriers of business ethics on attitudes about questionable practices and form of moral reasoning*. Journal of International Business Studies, 1996. **27**(2): p. 391-411.
28. Forker, L.B., *PURCHASING PROFESSIONALS IN STATE GOVERNMENT - HOW ETHICAL ARE THEY*. Journal of Business Ethics, 1990. **9**(11): p. 903-911.

- Gino, F., Moore, D., & Bazerman, M. (2008). See no evil: when we overlook other people's unethical behavior. *Working paper*.
- Kish-Gephart, J. J., Harrison, D. A., & Trevino, L. K. (2010). Bad Apples, Bad Cases, and Bad Barrels: Meta-Analytic Evidence About Sources of Unethical Decisions at Work. *Journal of Applied Psychology, 95*(1), 1-31. doi: 10.1037/a0017103