



ROLE OF ETHICS IN LOGISTICS & SUPPLY CHAIN MANAGEMENT: FACULTY'S PERSPECTIVE

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ABSTRACT- Granted that students' need the essential learning identified with the various capacities inside the supply chain, a procedure approach is expected to put this information into viewpoint in regards to the worth added to clients, investors, and the general public overall. Be that as it may, one part of this subject merits a specific consideration as far as difficulties confronting Supply chain teachers, specifically, how to connect with students' speculation in imagining a socially mindful and moral Supply chain. Besides, assorted moral contemplations, profoundly established in the way of life we are brought up in, may turn into the fundamental specialist leading that energy charge that is in such an incredible interest from industry. This paper looks at whether there are contrasts among logistics and supply chain students versus non-marketing students and traditional marketing students with respect to ethical belief systems. On the off chance that distinctions exist in ethical belief systems between various specializations, this may affect instructional plan for ethics teaching method among various specialization. This paper utilizes a broadly utilized ethics instrument, the Ethics Position Questionnaire (EPQ), created by Forsyth (1980), to decide the ethical position of logistics and supply chain students in respect to two control groups comprising of non-marketing specialization and traditional marketing specialization.

Keywords: Logistics & Supply Chain, Ethics, Ethics Position Questionnaire (EPQ), Marketing, Non-Marketing.

I. INTRODUCTION

The exceptional-of-magnificence supply chains consistently rank securing top talent for their respective operations as a top priority. Companies like Apple, McDonald's, Amazon, Unilever, and Intel, the top five in – Gartner Supply Chain Top 25 for 2012, are backing up the case by putting huge time and effort in supply chain-explicit ability management efforts, incorporating building close associations with higher learning foundations (Hofman, et. al. 2013). While the need for better preparing students for complex careers in supply chain management is apparent, the response from academia has not been particularly encouraging (Fawcett, 2009). According to this author, the common criticism coming from businesses often centers on the inability of supply chain programs to provide a more holistic perspective of the discipline. Usually, the curriculum is inclusive of separate classes on purchasing, production/operations management, and logistics, for example, which, in turn provides for the creation of –functional silos within the supply chain program as a whole (Closs and Stank, 1999). Such an approach is far from preparing future supply chain leaders with the mindset and vision to propel the crucial importance of supply chain management not only in a firm's boardroom, but within the global community as well. Hofman et. al. (2013) best summarize the overarching potential: "The leaders are going beyond ... looking to engage hearts, not just minds, and ignite passion for the work that goes beyond mere compliance. They are connecting the dots between the work people do every day and its contribution to the societies within which they live."

The Council of Supply Chain Management Professionals (CSCMP) global conference discussions reinforced the notion that young talent for the profession is in strong demand. The key note speaker at the event, Mr. Felipe Calderon, the former president of Mexico and one of TIME magazine's –100 Most Influential People in the World, illustrated the need by providing a common, worldwide perspective: "The supply chain profession is critical to organizations around the world, as well as to countries and their economies" (CSCMP Global Conference Proceedings). Granted that students need the basic knowledge related to the different functions contained by the supply chain, a development proceed is needed to put this knowledge into perspective regarding the value-added to customers, shareholders,

and the society as a whole (Ellinger, 2007).

Interestingly enough, the realization is gradually – gaining traction|| through a renewed attention to the social responsibility aspect of supply chain management.

Often dubbed as part of the triple bottom line, together with environmental and economic performance, the social aspects of the discipline receive an equally strong recognition (Carter and Rogers, 2008). Reviewing the socially responsible supply chain operations is outside the scope of the current research. However, one aspect of this topic deserves a particular attention in terms of challenges facing supply chain educators, namely, how to engage students' thinking in envisioning a socially responsible and ethical supply chain. Moreover, diverse ethical considerations, deeply rooted in the culture we are born and raised in, may very well become the necessary agent conducting that passion charge that is in such a great demand from industry. Only through the lenses of potentially controversial behavioral experiences can students express and transform their thinking into a deeply engaging commitment to the supply chain management profession (Maloni, et. al., 2013).

Although these authors focus predominantly on environmental issues relevant to students' behavioral intentions, they do acknowledge the potential of teaching ethics related to supply chain management as plausible venue for deeper engagement with the material studied. The necessity to teach ethics within the broader topics of supply chain becomes a topic which is worth of further investigation.

Ethical issues in business have been a concern of business scholars and practitioners since the 1960s (De George 1987; Schlegelmich and Oberseder 2010). Research reflects the breadth and impact of business on society as whole and ethical concerns have been researched in virtually every business field including accounting, finance, marketing, and management (Ketz 2006; Fridson 2002; Nill and Schibrowsky 2007; Schlegelmich and Oberseder 2010; Tsalikis and Fritzsche 1989).

However, there has been relatively little research done on the attitudes and perceptions of logistics and supply chain management students in particular. This paper provides an analysis of attitudes of logistics and supply chain specialization students concerning ethical perceptions and attitudes. This research is valuable in assessing the need for ethics education in the field and for development of effective pedagogical methods in the field of ethics and logistics and supply chain management.

There have been a variety of studies that have examined the attitudes and beliefs of business students about the ethicality of decisions and behaviors (Hawkins and Cocanougher 1972; Schlegelmich and Oberseder 2010). A number of studies have focused on perceptual differences between business students and non-business students. However, the literature review did not reveal any study that had specifically studied the differences between logistics and supply chain specialized students compared to (1) marketing specialized students in the colleges of Management, and (2) between non-marketing specialized students. Differences in students' perceptions are important in ethical research for a number of reasons. First, it may lead to discovery of potentially ethically problematic decision making processes on the part of different student majors. Second, the identification of differences may suggest the development of effective pedagogy methods based on students' perceptions. Thus, an argument is made that this research is important to the field of logistics and supply chain management and can contribute to the development of pedagogy methods for teaching ethics in logistics and supply chain management.

With the above framework in mind, this paper proceeds as follows. First, a review of the literature is presented. Second, Forsyth's EPQ is discussed including a brief discussion of the corresponding ethical theories which notes problems with certain ethical ideologies. Third, a discussion of our hypothesis and methodology is presented, and finally we present our results, conclusions, limitations, and suggestions for further research.

II. REVIEW OF LITERATURE

Various studies have been led concerning the moral philosophies of different specialized students. For instance, Hawkins and Cocanougher (1972) compared business students to non-business students and juniors to seniors (e.g., class standing). They discovered (1) business majors were bound to endure morally faulty practices (they would in general be more subjectivists) than non-business majors, and (2) the measure of business training got and readiness to endure morally questionable behavior correlated

positively. However, level of training was unrelated to such resistance for non-business majors. Thus, business students' tolerance of moral subjectivity expanded as they finished business courses. Apparently, students' most prominent presentation to business courses would come in the senior undergraduate year.

More current examinations have contradicted Hawkins and Cocanougher (1972). For instance, Tse and Au (1997) found ethical affectability didn't differ fundamentally among business and non-business students in New Zealand. Arlow (1991) discovered undergraduate major was irrelevant to ethical affectability in business contexts; however, it influenced observations about corporate social responsibility. Given the close associations among ethics and corporate social responsibility, this is surprising.

Lane (1995) reports a larger part of Australian and U.S. business students were eager to act unethically; however, they were progressively delicate to ethical considerations in circumstances with a potential negative social effect. This finding lends credence to one major argument of this paper; namely, logistics and supply chain curricula should include a significant ethics component to promote the ethical development of students in the logistics and supply chain major.

Shannon and Berl evaluated marketing students' beliefs about the sufficiency of ethical advancement and instruction in promoting marketing programs (Shannon and Berl 1997). They surveyed 273 business students enrolled at eight U.S. business schools. Students revealed that ethics coverage was sufficient in some courses (e.g., sales and sales management) but inadequate in other courses (e.g., transportation and logistics). Besides, students revealed an enthusiasm for ethics education; explicitly, most students believed a course in marketing ethics should be compulsory and many students demonstrated they would finish such a course paying little respect to its pre-requisite status. These findings support the accreditation statement of The Association to Advance Collegiate Schools of Business (2012) (AACSB).

AACSB requires ethics be a component of general knowledge and skills in undergraduate business curricula. Institutions may choose the method used to accomplish this goal; specifically, ethics may be included in each course that includes general skills components or offered in a dedicated course. For many courses in which extensive substantive material must be covered in a short period (one standard semester or less), adding an ethics component may overwhelm many instructors. Thus, this finding lends support to the argument that a dedicated ethics course should be offered for each specific major program.

With the above literature in mind, this paper now presents a discussion of the survey instrument that was used in this study. We include in that discussion an overview of the philosophical ethical theories/ideologies that correspond to the two scales that are employed in the EPQ.

III. THE ETHICAL POSITION QUESTIONNAIRE AND ETHICAL IDEOLOGIES

Although many scales that have been developed to test ethical sensitivity, Forsyth's EPQ has been used in several business ethics and marketing studies (e.g., Davis, Andersen, and Curtis 2001; Tansey, Brown, Hyman, and Dawson 1994). However, no published study reports a comparison between logistics and supply chain students versus other marketing specialized students and non-marketing postgraduates using this scale. The EPQ, which consists of 20 items designed to measure respondents on ethical relativism (10 items) and ethical idealism (10 items) to create a two by two matrix of ethical ideologies as shown in Table 1 below.

Table 1: Taxonomy of Ethical Ideologies

	Relativism	
Idealism	High	Low
High	Situationists	Absolutists

	Rejects moral rules; Advocates Individualistic Analysis of each act in each situation; relativistic	Assumes that the best possible outcome can always be achieved by following universal moral rules.
Low	Subjectivists Appraisals based on personal values and perspective rather than universal moral principles; relativists.	Exceptionists Moral absolutes guide judgments but pragmatically open to exceptions to these standards; utilitarian.

Respondents rate their agreement or disagreement with the 20 questions on a nine point Likert scale where 1 = completely disagree and 10 = completely agree. Thus, the most highly relativistic person would have a score of 9 on the relativism scale. The most highly idealistic person would have a score of 9 on the idealism scale.

Forsyth's categories correspond to the following ethical philosophies. Situationists correspond roughly to what is often called classical utilitarianism.

The classical form of utilitarianism holds that each situation has unique aspects, as no two events are exactly alike. People should analyze each situation carefully and act to maximize overall happiness. Note the key metric is maximizing happiness for all relevant parties rather than one or more people.

Exceptionists correspond roughly to what is commonly called rule utilitarianism. This form of utilitarianism holds there are sufficient commonalities among situations to permit rule development and one should normally follow the rules unless there are extenuating circumstances.

Absolutists correspond roughly to what is commonly called deontological ethics. Deontological ethics is also called duty ethics because it focuses on duties. This philosophy was largely developed by Immanuel Kant. Deontological ethicists deny that results are important. Rather, people are duty bound to act based on absolute moral principles.

These absolute moral principles are derived from pure logic. Thus, a duty is one that is logically consistent and universally applicable. This categorical imperative' maintains that in all dealings with another rational being (i.e., human being), one must treat that person as an end and not as a means to an end. For example, lying is neither logically consistent nor universally applicable. Thus, to tell a lie violates another person's autonomy and treats that person as a means to an end, which is a priori morally wrong.

Finally, subjectivists present what is usually considered a challenge to philosophical ethics. Subjectivism is the belief that moral judgments are entirely individualistic. This is intuitively appealing because moral judgments do not seem to have proofs like geometric proofs. However, this view is problematic as rules of logic can create –proof like arguments in support of higher order ethical decisions. To the extent that students are highly relativistic this may lead to ethically questionable decision making outcomes.

IV. METHODOLOGY

Based on our review of the literature we sought to determine whether or not logistics and supply chain students differed significantly from marketing and non-marketing specialized students. In order to test this question, we tested the following research questions. First do logistics and supply chain specialization students differ significantly from marketing and non-marketing specialization students on ethical idealism? Second, do logistics and supply chain specialization students differ significantly from marketing and non-marketing specialization students on ethical relativism? Thus, we proposed the following hypotheses:

H₀₁: Logistics and supply chain specialization students will not differ significantly from marketing and non-marketing specialization students on ethical idealism as measured by Forsyth's EPQ idealism scale.

H₀₂: Logistics and supply chain specialization students will not differ significantly from marketing and non-marketing specialization students on ethical idealism as measured by Forsyth's EPQ relativism scale.

In order to test these hypotheses, data were collected from logistics and supply chain specialization students, non-marketing and marketing specialization students at a comprehensive university in the Central part of the India. The surveys were conducted in three supply chain and operations management courses, one marketing course, and one non-marketing course. There were 30 usable logistics and supply chain specialization respondents, 25 useable marketing specialization respondents, and 20 useable non-marketing specialization respondents.

V. RESULTS

Results of the surveys were analyzed using a one-way ANOVA with Post Hoc Tests. This analysis supported H₁ as shown in the tables 2 – 4 below.

Table 2: Descriptive statistics of Idealism Scale

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Marketing specialization	25	6.8375	1.48348	.30281	6.2111	7.4639
Non- Marketing Specialization	20	6.4864	1.10423	.23542	5.9968	6.9760
Logistics & SC specialization	30	6.0500	1.96305	.34702	5.3422	6.7578
Total	75	6.4154	1.62904	.18445	6.0481	6.7827

Table 3: ANOVA of Idealism Scale

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.659	2	4.330	1.659	.197
Within Groups	195.682	72	2.609		
Total	204.342	74			

Table 4: Post Hoc Tests Multiple Comparisons – LSD

(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.	95 % Confidence Interval	
					Lower Bound	Upper Bound
Mktg	Non -Mktg	.35114	.47677	.464	-.5986	1.3009
	Logistic	.78750	.43617	.075	-.0814	1.6564

Non-Mktg	Mktg	-.35114	.47677	.464	-1.3009	.5986
	Logistic	.4363	.44736	.332	-.4548	1.3275
Logistic	Mktg	-.78750	.43617	.075	-1.6564	.0814
	Non-Mktg	-.4363	.44736	.332	-1.3275	.4548

There are no significant differences among the groups based on their idealism score. However, H₂ was not supported and there were significant differences among the groups based on their relativism score. The results of the ANOVA and Post Hoc analysis are presented in tables 5 – 7 below.

Table 5: Descriptive statistics of Relativism Scale

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Marketing specialization	25	4.0667	1.744447	.35609	3.3300	4.8033
Non- Marketing Specialization	20	4.9591	1.87887	.40058	4.1260	5.7921
Logistics Specialization	30	6.2125	1.81761	.32131	5.5572	6.8678
Total	75	5.1987	2.01117	.22772	4.7453	5.6522

Table 6: ANOVA of Relativism Scale

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	64.908	2	32.454	9.873	.000
Within Groups	246.542	72	3.287		
Total	311.450	74			

Table 7: Post Hoc Tests Multiple Comparisons – LSD

(I)	(J)	Mean Difference (I- J)	Std. Error	Sig.	95 % Confidence Interval	
					Lower Bound	Upper Bound
Mktg	Non-Mktg	-.89242	.5351	.100	-1.9585	.1737
	Logistic	-2.14583	.48958	.000	-3.1211	-1.1705
Non-Mktg	Mktg	.89242	.53515	.100	-.1737	1.9585
	Logistic	-1.25341	.50214	.015	-2.2537	-.2531
Logistic	Mktg	2.14583	.48958	.000	1.1705	3.1211
	Non-Mktg	1.25341	.50214	.015	.2531	2.2537

VI. CONCLUSION

Based on a comparison of the relativism scores, it appears that logistics and supply chain specialized students are more highly relativistic than marketing and non-marketing specialized students. As the Post Hoc analysis above reveals, there is no significant difference between the control groups (marketing and non-marketing students), but rather the difference lies between logistics and supply chain majors and the control groups. This rejection of H₂ is interesting because it suggests that logistics and supply chain specialized students are more relativistic than some other specialized students. There are a number of plausible reasons for this difference. It may be that as logistics and supply chain management have become more quantifiable, specializations in these fields are more skeptical about issues that don't appear to be quantifiable. Whatever the reason, the data suggest that logistic and supply chain majors may benefit from increased ethical instruction. As noted above, high degrees of relativism and a rejection of moral truths may lead to increased subjective decisions that may be morally problematic. One of the authors has proposed and tested a method for evaluating ethics instruction that has suggested that increased ethics education can decrease ethical relativism. These results suggest that similar training may be beneficial to logistic and supply chain specialized students as well.

There are a number of limitations that should be noted. First, this was a limited study in terms of participants. It maybe that increased samples of all student populations will result in a showing of less significance. This limitation provides an opportunity for future research. Second, the population studied was relatively homogenous. Thus, at schools with greater ethnic diversity, the results obtained herein may be different. Again, this provides an opportunity for future research.

Finally, future research directed at employing a field experiment to effectively teach ethics to logistics and supply chain students can be undertaken to determine what effect if any such education has on the relative ethical ideologies of logistics and supply chain students.

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