

# DO YOU FIT? SUPPLY CHAIN MANAGEMENT AS A MAJOR AND CAREER

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## ABSTRACT

*A college degree, while desired by many, may also result in significant student debt. The time to graduation can impact the level of this debt. The selection of a major which is a good fit for a student can support the timely completion of a degree. To aid with fit, this study utilizes qualitative data to explore those characteristics associated with successful Supply Chain Management professionals. This information can be used by potential students to determine if Supply Chain Management is a good fit for both their major and future profession. The approach can also be used by Supply Chain Management faculty for recruiting students or program assessment.*

**Keywords:** Chain Management, Interpersonal Behavior, Business Degrees, Pre-Business Students.

## INTRODUCTION

The student debt associated with higher education is a growing, and significant, concern (Godfrey, 2017; Hinton and Rezin, 2018; Selingo, 2018). A recent poll found almost 50% of recent graduates would forfeit their right to vote during the next two U.S. presidential elections in exchange for erasing their student debt (Blumberg, 2017; Scipioni, 2017). And while tuition, textbooks, and room and board expenses are largely outside of the control of students, one thing they can impact is their time to graduation (e.g. Farrington, 2017). A number of universities have begun emphasizing the four year time to graduation in an effort to help limit student debt (Browne, 2018). Indeed, one study estimates that an additional two years in time to graduation could cost \$300,000 (Browne, 2018). Therefore, having a planned path to graduation may facilitate the timely completion of a college degree.

For business school students, the choice of a major is a complex one. Prior research has identified factors such as gender, affinity for the subject, job availability, or earning potential which may impact the decision (e.g. Coldwell and Callaghan, 2013; Kim et al., 2002; Leon and Kim, 2016; Mauldin et al., 2000; Pritchard et al., 2004). A study by Malgwi et al. (2005) undertook an enhanced examination of gender differences, but highlighted an additional issue change of major by students. Nearly 50% of the students that participated in their study had changed major within the business school. While they explored the positive and negative factors driving the change of major, there was no exploration of the potential delays in graduation associated with the change.

Other research regarding major choice has focused on personality traits, values, and interpersonal behavior (e.g. Giacomino and Akers, 1998; Noel et al., 2003; Kopanidis and Shaw 2014). Noel et al. (2003) define a personality trait as a “*distinguishing, relatively enduring way in which one individual differs from another (Guilford, 1959)*” (p.154). The study utilizes personality and self-monitoring indicators with respect to three business majors. The results

indicate that “*personality stereotyping and related self-monitoring behaviors take place in students’ selection of a business major.*” (p.156). Thus, those individual and enduring personality aspects impact choice of major. The authors also note, however, that they did not address causality. There was no examination of precedence of career choice and personality traits.

## LITERATURE REVIEW

Yet another research area has explored business degrees with respect to professionalism. This research includes efforts to examine professionalism (e.g. Holland, 2013; Noordegraaf, 2007; Senapaty and Bhuyan, 2014). Among this research, Cabrera and Bowen (2005) argue that global management should be viewed as a profession. To qualify as a profession, they emphasize three criteria: A common body of knowledge which is both theoretically grounded and instrumental for practice, a set of rules for entry to the profession to be able to practice, and a shared code of conduct for the profession to serve a greater good (Cabrera and Bowen, 2005). They go on to explore a particular MBA program and its efforts to advance professionalism. An interesting caveat to their discussion is that “*fit*” with the values of professionalism “*should be considered both in the selection of students and in the content of their education*” (p.798). This idea is also recognized by Noel et al. (2003) when they state an “*effective business program should strive to develop a match between the qualities desired in a profession and the students’ stereotypical images of those professions*” (p.156). It is this idea of fit or match, which prompted the current study.

We seek to explore the match between the views of Supply Chain (SC) industry professionals and SC students regarding the characteristics required to be successful in the SC profession. This will allow us to assess whether students’ expectations are in line with the work environment they will encounter. We also included faculty that teach SC courses, to allow a triangulation approach, as demonstrated in Rosenberg et al. (2012). By including faculty, it also allows insight into whether the associated SC programs are emphasizing those characteristics or abilities relevant to the marketplace.

While the “*fit*” between student and program may be desirable, the choice of major is dictated by the student, not the educational program. While students might seek information regarding a major or field of study from others, the decision is ultimately left to the student. Further, the choice of major typically happens early in the students’ business program. This is consistent with Leon and Uddin (2016) who found “*The sophomore year appears to be the most common year for major selection*” (p.31). Thus, the choice of major may occur before a primary or introductory course in the discipline is taken. In the authors’ university, some incoming freshmen are accepted as pre-business students, and can declare SCM as a major upon enrollment in the University, even though admission to the College of Business occurs two years later. Given these possibilities, a student’s understanding of the SC field may be somewhat limited at the time the major choice is made.

## METHODOLOGY

A survey was created and distributed to three different groups of respondents. Supply Chain industry professionals, faculty that teach Supply Chain Management courses, and students currently enrolled in a Supply Chain Management program were surveyed. The survey consisted of just a few questions, which were modified slightly according to the expected respondent. Examples of the questions are provided in Table 1. The first question was the primary focus of

the current study. An open-ended approach was utilized, instead of culling potential characteristics of SC professionals from prior research. This was done deliberately, so that respondents could use their own terminology and phrasing, and it allowed respondents to answer briefly or in more depth. This open-ended approach also ensured that respondents were not limited to previously identified characteristics, as supply chains are continually changing and evolving, and management characteristics might also change over time (MacCarthy et al., 2016). The remaining survey questions were used to gather some basic information about the respondents, and the third and fourth questions provided lists where multiple responses could be chosen.

| <b>Table 1</b>   |
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| <b>SURVEY QUESTIONS FOR SUPPLY CHAIN INDUSTRY PROFESSIONALS</b>  |
| Q1: What characteristics or traits do you think are beneficial for Supply Chain Management professionals? Consider a business student with an undeclared major. What abilities would you indicate to the student would support a successful career in SCM? |
| Q2: What is your current job title?  |
| Q3: Which areas of the Supply Chain is the primary focus of your current job?  |
| Q4: Are you currently a member of any of the following professional organizations?   |

Potential survey respondents were contacted via email and given a link to SurveyMonkey.com. Participation in the survey was entirely voluntary. Faculty that taught Supply Chain courses at universities within or near west Michigan were identified as potential respondents. This regional approach was taken to align the responses with students and industry professionals in that same region. A total of 10 useable responses were received from faculty, for a response rate of 22.7%. A total of 83 students were queried, in a course required of Supply Chain Management majors. The majority of students in the course were seniors, and many on the verge of graduating. Useable responses were provided by 73 students, for a response rate of 87.9%. For the industry professionals, three professional organizations in West Michigan were asked to contact their members and forward the request for participation. Since the emails were sent by the professional organizations, and not the author, a precise response rate is not ascertainable. There is also the possibility of overlap among the email lists of the three organizations, as members could belong to more than one organization. Consequently, for industry professionals, an estimated response rate of 20.5% was determined. All of these response rates are considered acceptable for empirical research and provide some confidence in the findings.

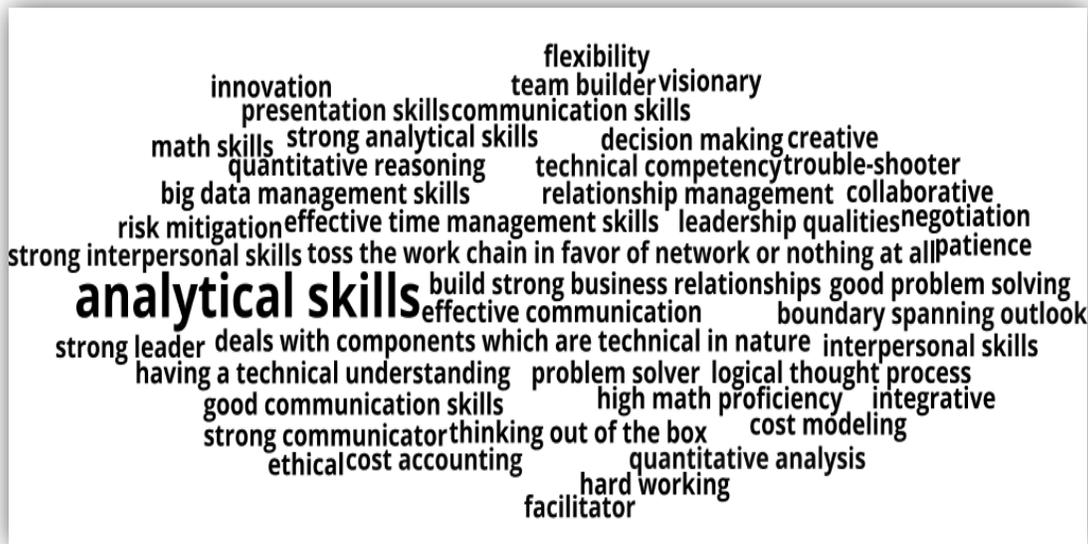
## **RESULTS AND DISCUSSION**

The survey responses were analyzed within their respective groups. The initial analysis utilized Wordle, which is a program that creates word clouds from text. Word clouds allow a display of diverse words or themes, and those words with a greater frequency of occurrence will appear darker, and in a larger size. This approach has been used in other research, especially for preliminary explorations of qualitative issues (e.g. Holland, 2013).

The word cloud created from the responses of SC professionals revealed several common themes (Figure 1). Problem-solving, flexibility, and critical thinking were cited as desirable characteristics for SC managers by numerous survey respondents. To support the relevance of







**FIGURE 3**  
**WORDLE ANALYSIS OF SUPPLY CHAIN MANAGEMENT FACULTY**

### **CONCLUSION**

The word clouds indicate a match between student perceptions of SC management and industry professionals' expectations. Thus, students appear to have a reasonable understanding of their future working environments and should be a good fit for the field. Both groups ranked communication and problem-solving skills highly, and recognized the need for leadership, analytical abilities, and flexibility. While the importance of these attributes for business graduates have been identified (e.g. Stuba et al., 2017; Curkovic and Fernandez, 2016) this study is specific to SC majors. And while the faculty word cloud indicates their emphasis on similar abilities to those of the other two groups, the smaller sample size somewhat limits the generalizability of those findings.

These findings should also prove useful for recruiting potential SC majors. While the findings are consistent with other studies regarding SCM skills (e.g. Jordan and Bak, 2016), the word clouds provide a visual, easily accessible look at the field of SCM. They highlight the abilities and expectations required of professionals in the field and may help limit mismatches between students and the choice of major. This may, in turn, increase student satisfaction with a major or educational program. Further, choice of a major that aligns with student expectations may minimize change of major and thus prevent delays in time to graduation. Further, in programs with limited faculty resources, it may ensure that the best potential candidates are utilizing those limited resources.

A similar approach could also be used for other business majors. The short survey takes very little time, and could be shortened to just the first question. After collecting survey responses from appropriate professionals or employer recruiters, word clouds for other majors could be created. This could potentially allow better matching between students and choice of major across the entire business school.

Finally, this approach could be used to support assessment or even accreditation. The question could be altered to ask students what skills were emphasized in their major, or within the broader business program. Similarly, employers could be asked about skills business graduates possess or skills needed. This would allow an examination of the similarity or alignment between the two sets of responses. The shortness of the survey would allow frequent, and easy, assessment. Frequent assessments over time may also highlight any needed curricular updates or modifications as the business environment changes.

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