

# **Do Certifications Make a Difference with the Recruitment of Graduate Students for Industrial Management Programs?**

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## **Abstract**

The goal of most institutions of higher education is to provide their students with a general understanding of the subject matter so they can eventually adapt to a variety of jobs related to their career field. In contrast, many companies review resumes for management-related positions looking to find the best qualified applicant who has a documented track record of their knowledge and accomplishments through specific certifications and/or professional licensures.

This paper deals with the perceptions of graduate students regarding the importance of earning certifications while earning a degree. In addition, while addressing this issue this paper also provides the details of how a dying graduate program was revitalized into one that is sought after by students from across the globe.

## **Introduction**

Over the years, it has been common for many technical areas to certify their practitioners [1, 2]. Automotive technicians, nurses, welders, electricians, computer support specialists and more are required to be certified or they often cannot legally practice their profession or trade. Typically, certification requires practitioners of their profession to demonstrate that they possess a minimum body of knowledge and that it may also require a pledge to follow an ethical code of conduct [3, 4]. According to Gilhooly [5], company-subsidized training and certification for an organization's staff are not just perks but a necessity to ensure quality. Furthermore, certifications can be valuable tools for hiring and retaining employees [6]. Many IT departments and a company's overall business performance for that matter can reap such benefits as increased productivity and improved information system performance when staffed by certified professionals [7-9].

As the cost of a college education continues to escalate and saddle students with debt, more and more individuals are debating about earning a certification or a graduate degree [10-12]. According to Dwyer [13], “certificates are the fastest growing form of postsecondary credential around.” Furthermore, a report from the Georgetown University Center on Education and Workforce [14] noted that, “In 1980 only 6 percent of Americans earned a certificate, but that’s skyrocketed up to 22 percent, with more than one million of us earning a certificate every year.”

### **Purpose of the Study**

As the number of personal certifications continues to escalate, the question arises as to whether academia should deem it necessary to offer more certifications to their students? Although most business and industry professionals agree that certifications are important to advancing their careers, this study was conducted to see if offering certifications had any effect on a graduate student’s decision on declaring a major. More importantly, did incorporating certifications that could be counted towards coursework for a graduate degree become a major factor in the selection of a graduate degree?

### **Methodology**

In the fall semester of 2006, the Department of Technology at The University of Texas at Tyler had only one student enrolled in the graduate program and was notified by the Texas Higher Education Coordinating Board that the program would be closed if it could not graduate fifteen students in five years. The program coordinator quickly reviewed other similar graduate programs that had shown growth as illustrated in past NAIT Industrial Technology Program Directories from 2000-2004 [15-19]. In addition, the program coordinator notified the remaining student in the program to inquire as to what he wanted out of the program and if he was interested in the curricula that were offered in at other programs that showed growth in the NAIT Industrial Technology Program Directories. There was a consensus that adding lean and six sigma quality to the curricula would attract more students.

Once the new curriculum was approved and offered the following year, 12 new students entered the program and the enrollment continued to grow until it plateaued for several years. In order to determine the reason for this stagnation in enrollment, students were queried informally during classes to determine if there was anything else the students wanted from the program. Several students noted that it would be nice if they could be Lean Six Sigma Black Belt certified since the program covered most of the content on currently available certification exams. Once this certification was finally approved and advertised, the program began to increase its enrollment. Furthermore, more students inquired about other certifications they would like to pursue. Each year additional certifications were integrated into the program’s degree plan and faculty were sent for training to properly prepare them to

effectively deliver the curriculum to students. Before going any further with more certifications, the faculty of the program wanted to make sure that certifications were a useful recruitment tool for students since they had to spend a lot of time training and preparing the new coursework required by the certification. A 10 question survey was then prepared by the faculty to query the students regarding the topic of certifications.

## Results

The following 10 question survey was developed by the Department of Technology faculty and was administered to a total of 132 Industrial Management graduate students to obtain their perceptions regarding certifications. There were 115 surveys that were properly completed for a total response rate of 87%. The length of the survey was limited to 10 questions to increase the response rate [20]. In addition, respondents were told to read all the questions first before answering any of the questions. Students were also given bonus points towards assignments if they filled out surveys in order to increase the response rate.

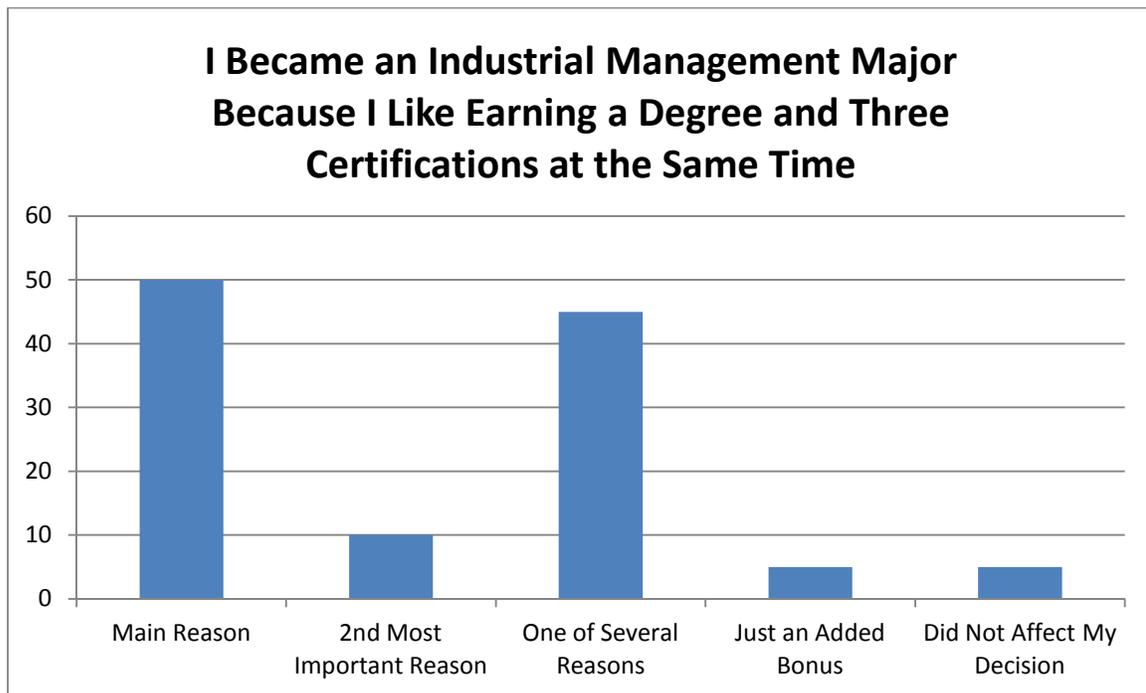


Figure 1: Students Response to Earning a Degree and Certifications Simultaneously

The first question of the survey dealt with the impact of allowing students to count coursework for three certifications towards their degree. As illustrated in Figure 1, 50 out of 115 respondents listed that option as the main reason for majoring in the program. Additionally, 55 more listed that benefit as either the second most important reason or one of several reasons for earning a degree from the program. In all, 91% of the respondents agreed

that earning certifications while earning a degree was one of the reasons they chose this degree.

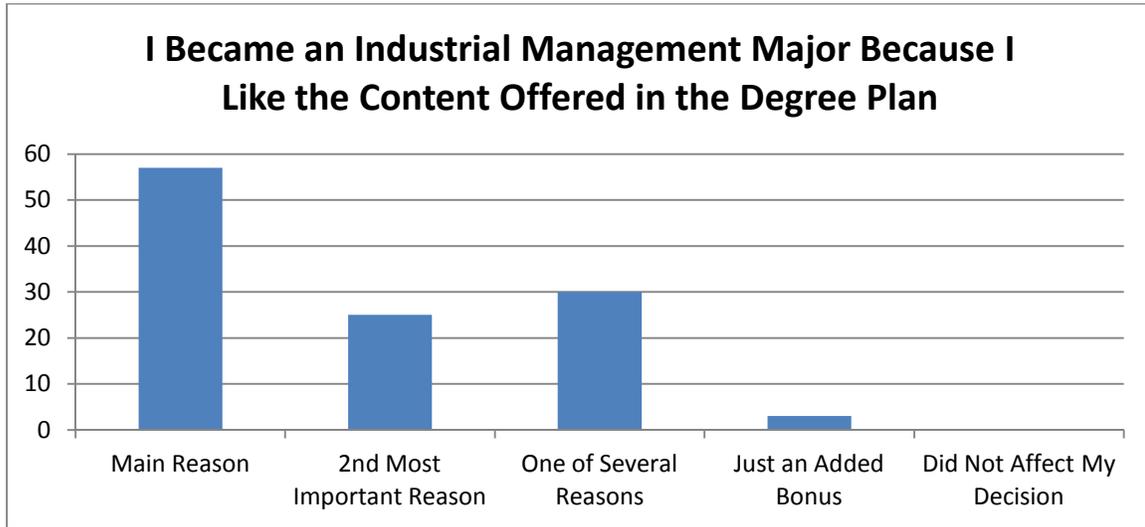


Figure 2: Student Response to Content in Degree

The second question on the survey was concerned with how well the majors liked the curriculum content of the program. It was nice to see that all but three or 97% felt that it was a reason why they selected their field of study as illustrated in Figure 2. Fortunately, none of the respondents felt that the content of the program did not affect their decision.

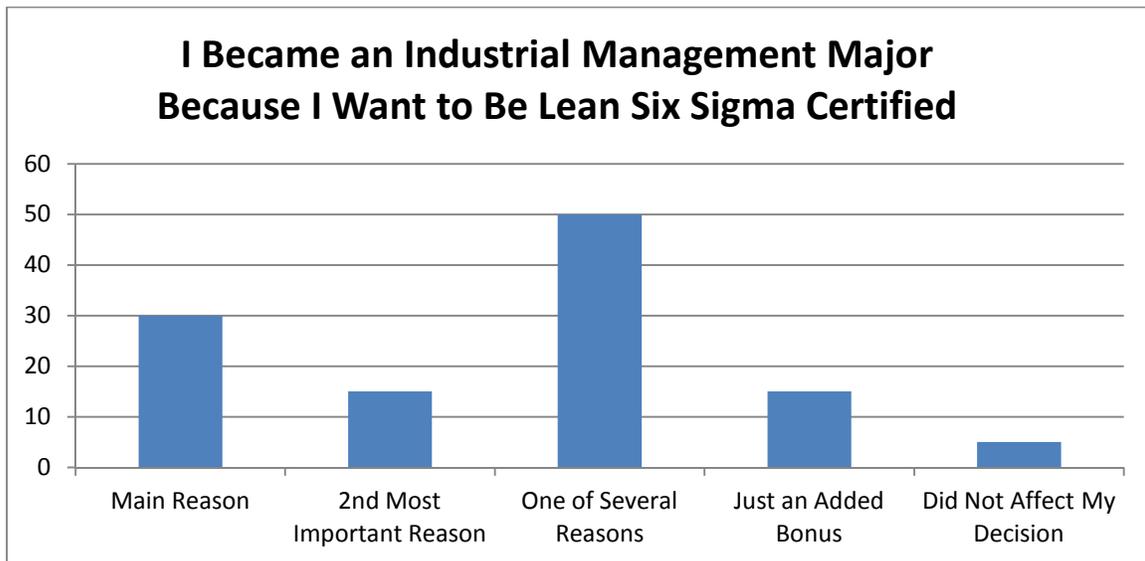


Figure 3: Student Response to Lean Six Sigma Black Belt Certification

It was interesting to see the respondents' perception for each certification that was being offered for the program with 30 respondents noting that the Lean Six Sigma Black Belt certification was the main reason for them majoring in Industrial Management (refer to Figure 3). Moreover, 110 of the 115 respondents or 96% felt that it was one of the reasons they were majoring in the program or at the very least thought of it as an added bonus.

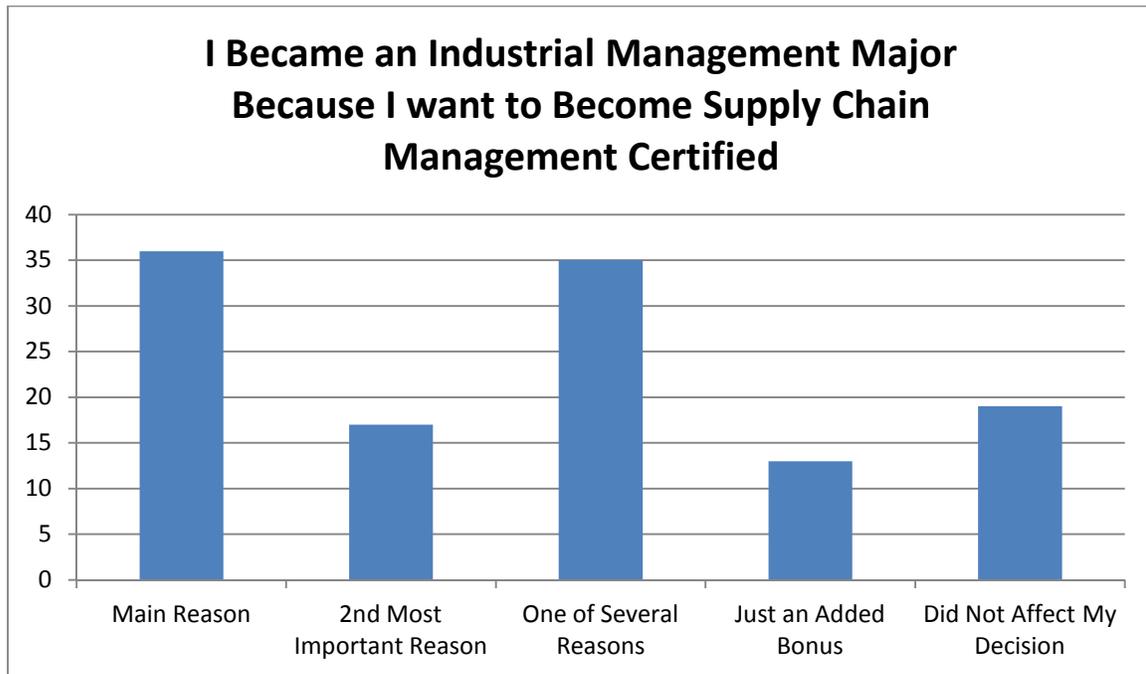


Figure 4: Student Response to Supply Chain Management Certification

The fourth question on the survey focused on whether students wanted to become Supply Chain Management certified as shown in Figure 4. It was interesting to see that approximately the same number of respondents chose this certification as one of their reasons for becoming an Industrial Management major as the Lean Six Sigma Black Belt certification, 76% to 83% respectively. However, six more respondents selected the Supply Chain Management certification as their main reason to enroll in the program. On the contrary, 19 respondents noted that the Supply Chain Management certification did not affect their decision to major in the program when only 5 respondents noted this for the Lean Six Sigma Black Belt certification.

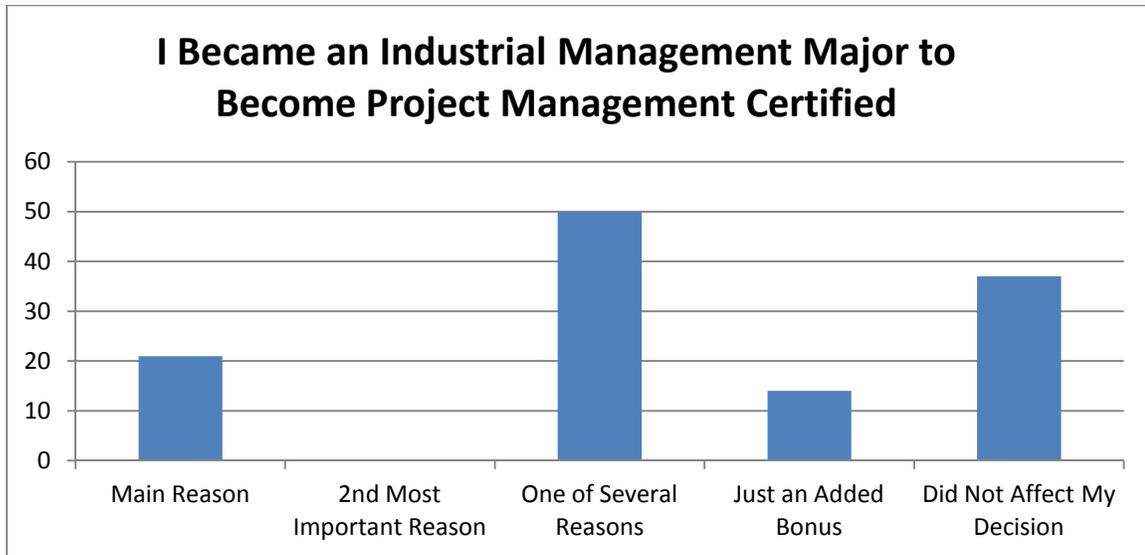


Figure 5: Student Response to Project Management Certification

As project management certifications continues to rise, especially through organizations such as the Project Management Institute (PMI), it was interesting to see that even Industrial Management majors were aware of its importance (see Figure 5) [21]. In fact, 20 of the respondents listed this certification as their main reason to enroll in the program and over 85 or 74% of the respondents selected it as one of several reasons for becoming an Industrial Management major or at least as an added bonus. Oddly enough, none of the respondents chose it as their second most important reason for selecting this major.

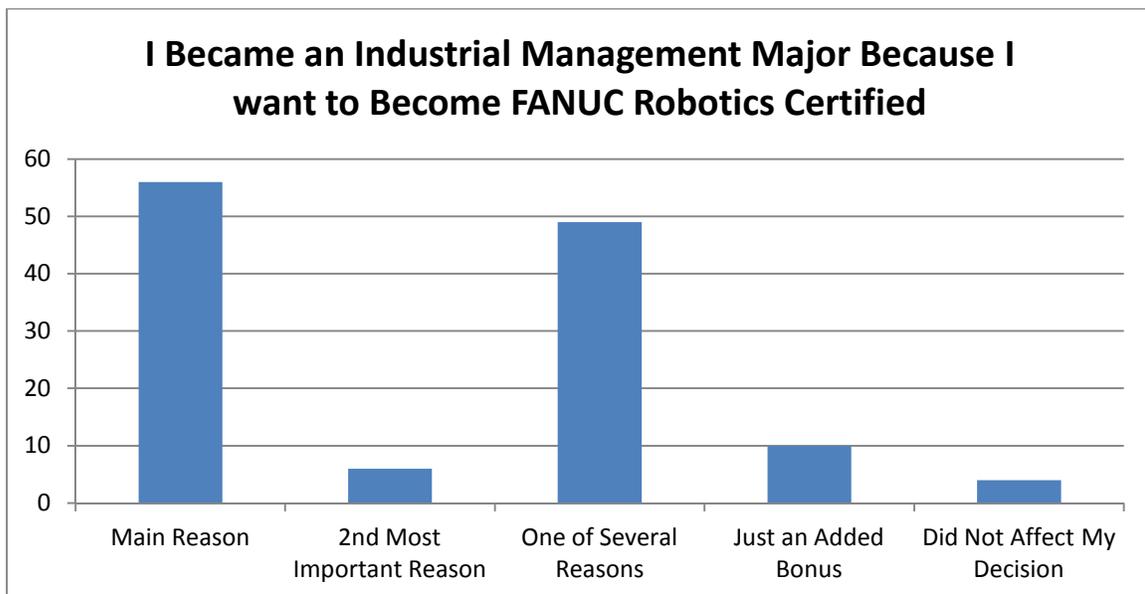


Figure 6: Student Response to FANUC Robotics Certification

The sixth question on the survey that pertained to FANUC robotics certification seemed by these authors the most intriguing of all the certifications. A few years ago, it was felt that specific skills training like programming a particular type of robot seemed to be better situated at the associate or baccalaureate level. Furthermore, the faculty thought that the entire course on Computer Integrated Manufacturing would be a better fit for just the undergraduate Industrial Technology program that was offered by the department. Contrary to the opinions of the faculty for the department, the FANUC robotics certification had generated the most interest of all the certifications. As illustrated in Figure 6, 56 of the respondents chose the FANUC certification as their main reason for majoring in Industrial Management. Additionally, only four of the respondents noted that it did not affect their decision to enroll in the program.

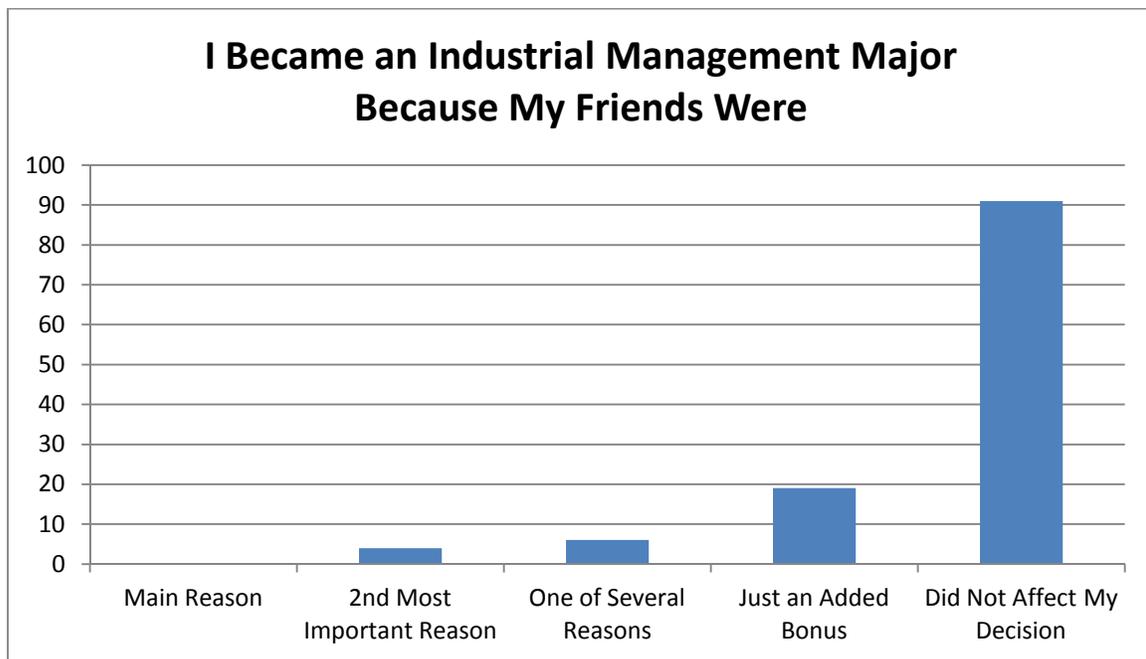


Figure 7: Student Response to Friends Enrolled in the Program

Question 7 was concerned with whether or not if friends influenced what a student would chose as a major. More specifically, would a student select a major just because his or her friend was enrolled in the major? Luckily, none of the respondents listed that as their main reason for majoring in Industrial Management with a whopping 91 or 80% of the respondents selecting the answer, Did Not Affect My Decision (refer to Figure 7). These authors welcomed this response from the respondents because it was expected that at this stage in a student's life that they were not affected by peer pressure and were more concerned with preparing for their future career and livelihood.

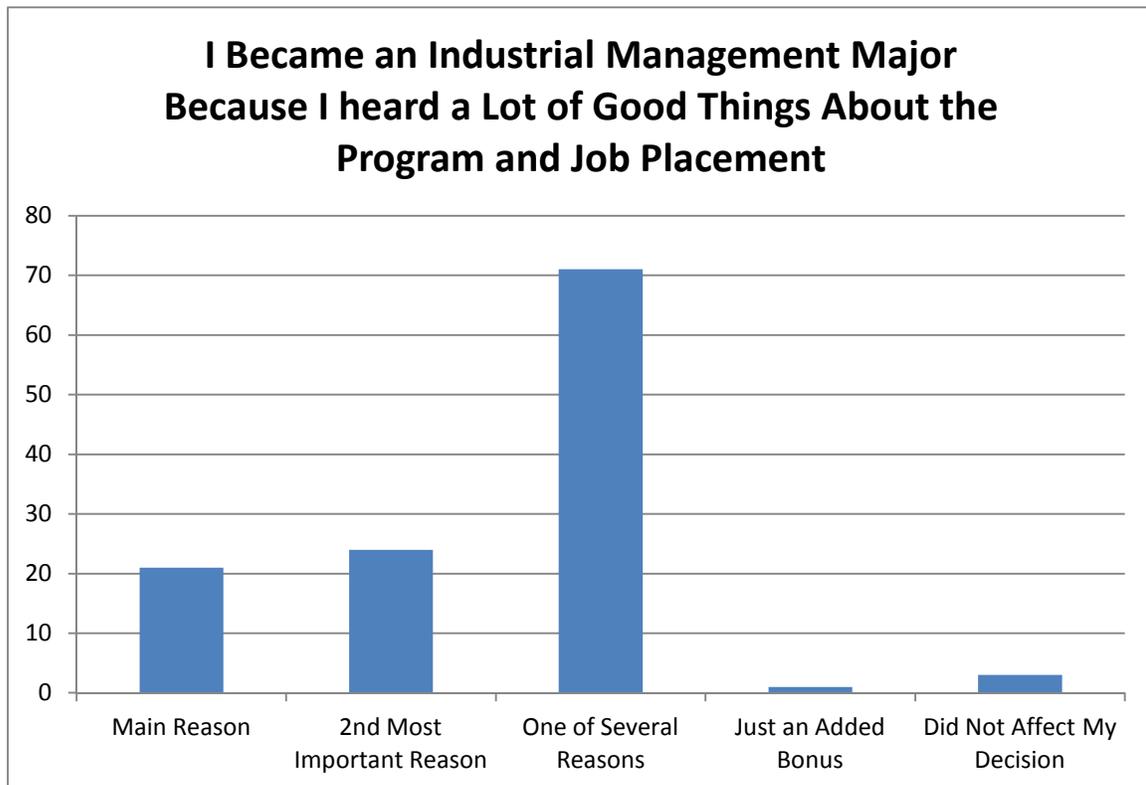


Figure 8: Student Response to Program Reputation and Placement

Question number eight, as illustrated in Figure 8, noted that only 20 out of 115 majors primarily enrolled in the program for its reputation and excellent job placement record. Although almost all of the respondents listed that as one of their reasons for becoming an Industrial Management major, more (50 respondents) selected earning a certification along with their degree as the main reason for becoming an Industrial Management major (see Figure 1).

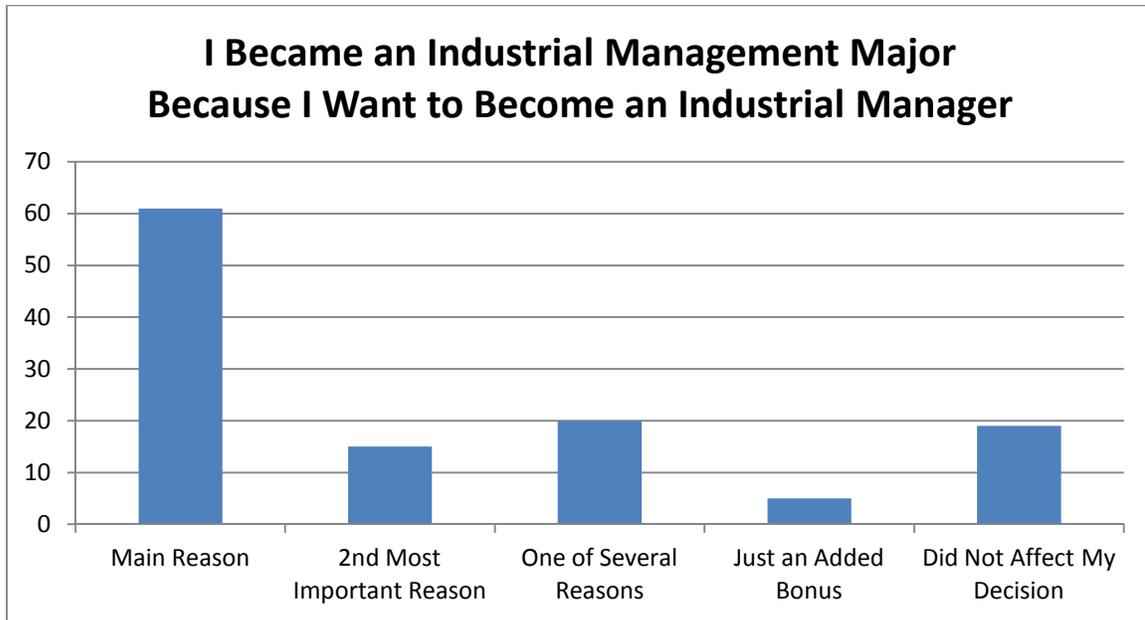


Figure 9: Student Response to Becoming an Industrial Manager

Fittingly in survey question number nine, 96 or 83% of the respondents chose Industrial Management as their major because they wanted to be an industrial manager. It was interesting to see that 19 of the respondents noted that it did not affect their decision to selecting this major as illustrated in Figure 9.

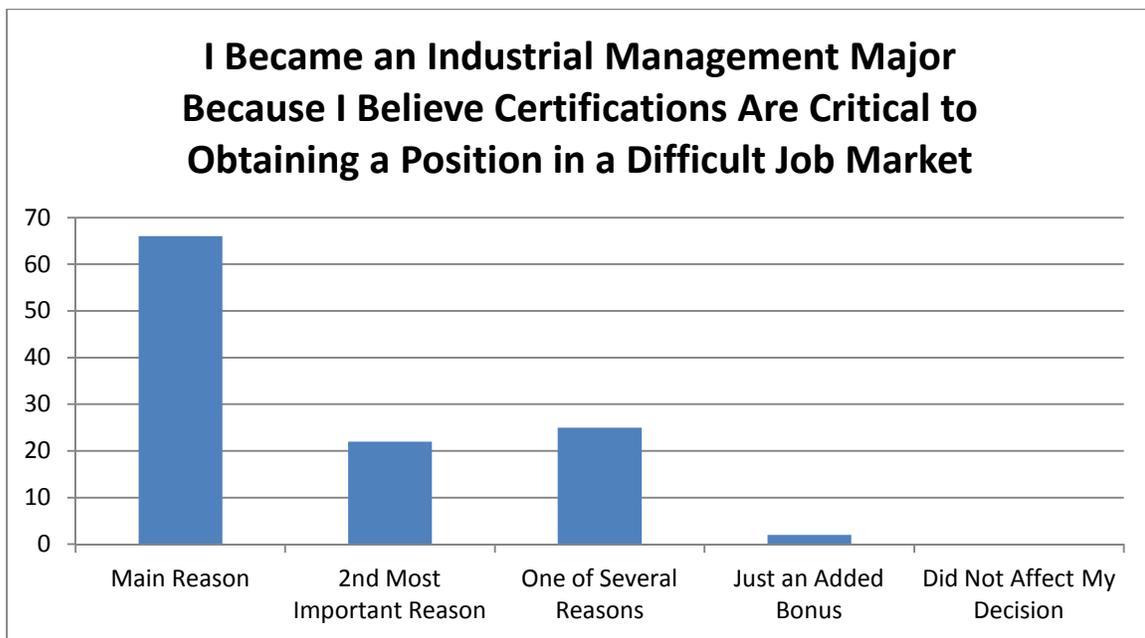


Figure 10: Student Response to the Importance of Certifications

The last question of the survey asked the respondents if they believed that certifications were critical to obtaining a position in a difficult job market. As seen in Figure 10, 66 of the respondents believed that was the main reason for enrolling in the Industrial Management program which was the highest total for that answer on the survey. As a whole, 112 or 98% of the respondents noted it was one of the reasons they enrolled in the program and that none of them chose the answer, Did Not Affect My Decision.

## **Conclusion**

As illustrated by the responses from the survey, almost all of the 115 graduate students felt that certifications were critical to obtaining employment in a difficult job market. Furthermore, 83% of those queried felt that obtaining certifications that count towards the degree requirements was an important reason why they majored in the Industrial Management program. Moreover, for each of the four certifications listed, over 50% of the respondents noted that earning one of the certifications was one of the reasons why they enrolled in the program. It should also be noted that as additional certifications had been introduced into the program, the number of students enrolled in the program had increased accordingly. Additionally, MBA, engineering, industrial psychology and other majors have enrolled in the Industrial Management courses in order to obtain certifications. It can therefore be concluded in this research study that certifications are not only attractive to technology-related majors, but majors from a variety of disciplines at the graduate level.

In conclusion, after 10 years of revising the curriculum and adding certifications to the Industrial Management curriculum, the program has grown from one student to well over 100. In essence, a program once marked for termination is now thriving and is also internationally renowned by adding industry recognized certifications to the program's curriculum.

## **Limitations**

It should be noted that the population queried for this research was only from one Industrial Management program from the United States. The survey instrument was created on the premise of extracting information regarding current students perceptions of the certifications offered by the program and if there was a direct correlation with their offerings and the increase in the growth of the program. Furthermore, the survey instrument was reduced to only 10 questions in order to obtain an adequate response rate. The survey instrument was not developed following the standardized rules for creating surveys and questionnaires as noted by many experts in the field [22-24].

## Recommendations

This survey should be conducted annually to continue to gain insights to graduate students' perceptions. In addition, the questions may be better interpreted with less ambiguity by using a five point Likert-type scale. It was noted on some of the surveys that respondents selected the answer "Main Reason" for most of the answers which should have only been used once. Likewise, a question should be added to ask the respondent to list any other certifications that they would like to obtain while earning a degree. Also, there should be a follow up question for those respondents who did not select becoming an industrial manager as a reason for majoring in Industrial Management in order to see what their career aspirations are. Furthermore, maybe more questions not pertaining to certification should have been included in the survey to prevent unwanted bias towards the importance of certifications. It should also be noted that the voice of the customer was an important tool in the continuous improvement process illustrated in the upward enrollment trend with this program and could therefore be a topic for further study.

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