



# An Exploratory Study on how Double Majors, MIS Internship, and GPA Influence Job Opportunity

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## INTRODUCTION

About two years ago, most MIS majors had multiple job offers, even before their graduation. Now, due to the current economic downturn, some MIS graduates don't find a job six months or even one year after their graduation. According to the National Association of Colleges and Employers (NACE) survey of 230 companies, 2002 has been a difficult year for college graduates seeking employment (Hames, 2002), and many firms are slashing their entry-level hires by 20% this year compared with 2001 (Dash, 2002). In this slow economy, employers are selectively choosing their campus recruits — including entry-level IT applicants.

Many MIS departments are reviewing and revising their curricula in order to equip their graduates with the most marketable knowledge and skills for future job markets. Educational policy makers need to understand the key factors influencing the placement of their graduates. They need to know how their majors can increase their chances of placement in a very competitive job market. Some potential factors include taking a double major, receiving a high GPA or doing an internship. Traditionally, GPA has been considered to be the single most important factor influencing a graduate's job hunting success (Hames, 2002). As business environments have changed substantially in the last decade, industries don't look for graduates who have only perfect GPA scores. MIS curricula have also changed with more options being available to the students including the ability to take a double major or an internship, which can be important vehicles for securing a job after graduation. However, there is relatively little empirical research in the MIS research literature that can determine if these factors really have an impact on placement.

This research intends to explore the affect these factors have on placement. A survey instrument was used to collect data in order to evaluate the importance of double majors, GPA and internships on the placement of MIS graduates.

## LITERATURE REVIEW

Historically, larger corporations have valued academic achievement and typically look for students who graduated from top schools and/or universities with top grade point averages (GPAs) of at least 3.5 out of 4.0. An excellent GPA may normally reflect a high level of material mastery, but real-world skills and experience can make a recent college graduate stand out from the crowd (Hames, 2002).

Prior studies suggest that recently, GPA is not the only important factor influencing placement of university graduates. Internships are another important option for graduates to increase their chances for receiving job offers (Goo, 2002; Knouse, Tanner, and Harris, 1999; Neimeyer, Bowman, and Stewart, 2001). Internships provide students an opportunity to break free from classroom theory and practice what they've learned in the business community. Internship programs also help students to confirm whether they are on the right career path. As they gain knowledge, some elect to focus on a particular aspect of a career, while others opt to change course entirely (Ben-David, 2002). University students might also benefit from their internship experience by increasing their chance of securing a job after graduation (Knouse 1999; Schambach and Kephart 1997). However, the positive effect of an internship

on job placement has not been found in research with large samples (Fuller and Schoenberger 1991), but only in research with small samples and limited controls on factors such as ability (Sagen 2000).

Another emerging trend is that students are able to take more than one major (normally double majors) to increase their marketability. For example, SNL Securities LLC Inc. will hire four or five entry-level IT graduates who have a mix of Web development, Web design and technical support skills, according to Barbara Kessler, human resources director at the financial publishing firm. As an additional example, some accounting knowledge is a big plus for someone who wants to work at a financial services firm (Dash, 2002).

Statistical evidence about the affect of GPA, internships, and double majors on the number of job offers is scarce, especially in MIS research literature. Therefore, this research intends to explore whether the factors of GPA, internship and double major could be used to leverage job opportunities for MIS graduates.

## RESEARCH METHODOLOGY

MIS Seniors in the business school of a large state university were the subjects in this survey. A survey instrument measuring relevant dependent variables was used. Students were asked for demographic background information, the number of majors completed, when they declared their MIS major, whether they completed internships, and whether they have received full time job offers.

There were 360 students in the MIS program, and 120 were seniors who will graduate in 2003. A cover letter written by the MIS department chair was sent to all MIS seniors, inviting them to participate in the survey. The survey questions were put on a website so that the subjects could fill in the questionnaire anytime within one week following the distribution of the cover letter. 65 students volunteered to fill in the questionnaire, which represented a 54% response rate. Of the 65 filling in the questionnaire, 58 of them were usable. 34% of the valid subjects were female and 66% were male.

## RESEARCH FINDINGS

Figure 1 indicates that most of the students surveyed (55%) have a GPA ranging from 3.1-3.49, 33% of them have a GPA ranging from 3.5-4.0, and 12% have a GPA ranging from 2.5-3.0. Therefore, the majority of the surveyed students have GPAs above 3.1.

Figure 2 shows that most students (41%) believe that internship experience is the single most important factor influencing the success of finding a full time job after graduation. This is very interesting because it is very different from the traditional view that GPA is the single most important factor in finding a full time job (Hames, 2002). In fact, only 2% of the surveyed students think that a high GPA is the most important factor in finding a full time job. Further, 24% of them think that communication skills are the most important factor for them in finding a full time job, and 21% consider technical skills as the most important factor. These findings reflect prevailing views of current MIS students, which may have an impact of future MIS curriculum.

From the student perspective, the internship experience has now become the most important factor influencing job placement for MIS graduates. Moreover, as shown in Figure 3, 30% of the students expect to obtain full time job offers from the company where they had their internships; whereas 70% expect to find a full time job in companies other than the company offering the internship.

Figure 1. GPA Range of Surveyed Subjects

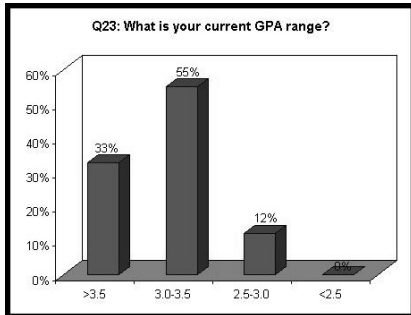


Figure 2. The Perceived Most Importance Factor Influencing Job Hunting

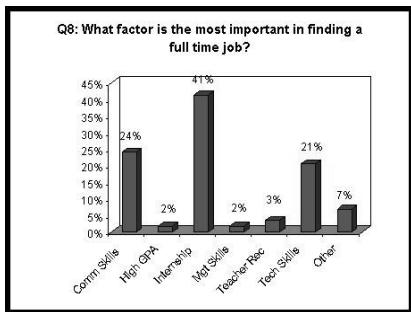


Figure 3. The Percentage of Job Offers from the Company Providing an Internship

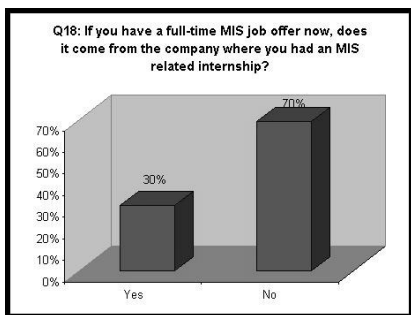


Figure 4. Number of Majors Taken by MIS Students

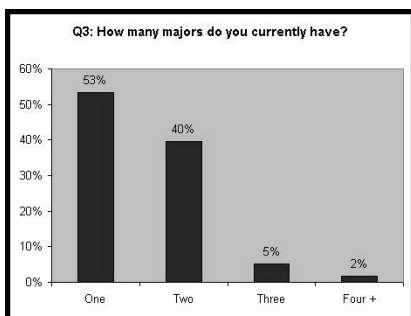


Figure 4 shows that nearly half of the MIS majors (47%) are taking two, three, or more majors. Random interviews with those taking more than two majors indicate that most of them plan to do double majors, but either (1) they are not sure whether they could cope with the core courses required to do the preferred double major, or (2) they don't know which two majors would be most welcome in job market in the near future. As a result, they are taking more than two majors for the time being but will probably not complete all of them.

It is interesting to note that, while nearly half of the MIS seniors realized the importance of double major (see Figure 4), only less than 7% of the surveyed students thought that the double major was the most important factor in finding a full time job (see Figure 3). It seems that a double major is not perceived as an important factor for job hunting, but rather is perceived as an important factor for providing more career options which has could also have an affect on placement.

However, perception may not always reflect reality. Figure 5 shows that 45% of the students received job offers that were not MIS-related. This indicates that 45% of the jobs offered require knowledge and skills other than

MIS, which could indicate the importance of double majors in job hunting. Additional information was gathered about internships. Figure 6 shows that the factors students considered important in obtaining an internship were different than those they perceived as important in finding a job. Figure 6 shows that student believed that communication and technical skills were the most important factor. These seem like reasonable perceptions but while students did not feel that GPA was important in job placement, 18% felt that GPA was the most important factor in obtaining an internship.

In addition to the factors relating to obtaining an internship, students were also asked about the interaction between internship experience and what they learn in the classroom. As Figure 7 shows, more than half of the students felt that an internship either helped some (19%) or a great deal (44%) in their classroom learning subsequent to the internship experience.

**DISCUSSION AND IMPLICATIONS**

This exploratory investigation reported some interesting research findings. Contrary to the traditional belief that GPA is the single most important factor in finding a full time job for students, in this study students felt it was the least important factor among the seven factors studied. Instead, internship experience was perceived as the most important factor by MIS seniors. Further, a double major may be another important factor in helping MIS graduates find a full time job, but its importance in job hunting has not been recognized by these MIS majors.

Figure 5. Percent with MIS-related Job Offers?

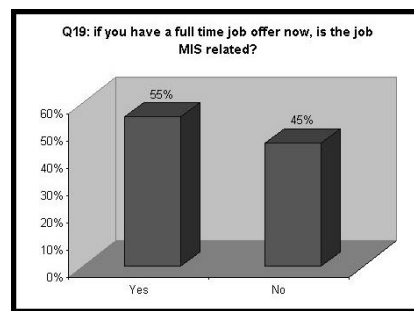
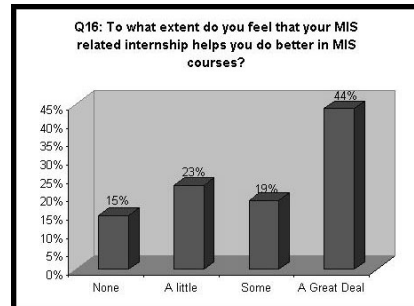


Figure 6. The Most Important Factor in Finding an MIS Internship



It seems that these MIS students believe that a high GPA is not very important to their future career development, while internships and double majors are becoming more and more important. Hence, MIS programs should consider if curriculum changes are needed help students secure internships and to integrate with other programs (typically with other business programs such as accounting, finance, and marketing) to offer double major programs. In this way, MIS programs may be able to strengthen their ability to successfully place their graduates.

Further, communication skills and information technology related technical skills were considered as very helpful in finding a full time MIS job as well as an MIS internship (see Figures 2 and 6). How-

ever, Figure 8 shows that nearly 40% of the students did not feel that current MIS courses did much to help them in their MIS related internships. Hence, some MIS courses may need to be revised to add in more components that require communication skills. Also to support the student belief that technical skills are important, courses or content could be added into existing MIS programs, such as Java, C++, ASP, Networking, UML, and eCommerce.

On the other hand, even though internships are considered the most important factor by the students, there are still some potential issues to be considered. For example, Figure 7 reveals that more than one third of the students think that their MIS related internship does not help their learning in MIS courses at all (15%), or only helps a little (23%). Another important issue is that 13% of the MIS students could only find an internship that is not MIS related at all. Therefore, given the importance of internships to MIS graduates, a better MIS internship system should be in place in MIS programs so that

MIS students can find MIS related internships that would be more closely related to their MIS courses.

MIS programs face new challenges ahead. Traditional emphasis on a high GPA will not help MIS students in the current job market. Many existing MIS programs may have to change to help MIS students locate internships, complete double majors, and improve communication and technical skills.

#### **ACKNOWLEDGMENT**

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#### **REFERENCES**

(Due to the limit of words on the paper, the references will be available upon the request)

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