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Factors Influencing Student Participation in Excel MOS Certification

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Abstract

This study examines the factors influencing student participation in the industry-based Microsoft Office Specialist (MOS) Excel certification exam(s) at a Mountain West University. Although MOS certification offers several career benefits, including increased job prospects and salaries, many students in business and information technology courses at the University opt out of taking the exams, particularly since the COVID-19 pandemic. Using a quantitative descriptive design, this research explores how factors such as awareness, preparedness, convenience, career goals, and peer influence affect student participation in the certification process. Data was collected through surveys completed by students enrolled in two courses focused on Excel, Information Management (IM) 2010 and IM 2600. Students enrolled in these two classes may take the MOS Excel Specialist exam, the MOS Excel Expert exam, or both exams. Results indicate that while many students initially intend to pursue certification, factors such as time constraints and lack of awareness about the certification process contribute to non-participation. The findings offer valuable insights for educators to address barriers and to improve student certification rates, ultimately reinforcing career readiness. Implications for future research are provided.

Keywords: Microsoft Office Specialist (MOS), Expected-Value Theory, Excel Certification, Career Advancement, Higher Education, Certification Barriers

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1. INTRODUCTION

Many college graduates view career advancement and competitive salary as primary goals in obtaining a degree (Gu & Zhu, 2023). In an increasingly competitive job market, distinguishing oneself from other potential job candidates is important (Gorbatov et al., 2019). To aid students and graduates in becoming competitive job candidates, many universities provide or require certifications that can improve the likelihood of career advancement and individual differentiation. The effectiveness of obtaining certifications varies widely based on the type of certification, the requisites for obtaining the certification, and the number of people certified (Marquardson & Elnoshokaty, 2020). For example, some certifications can only be obtained if coupled with adequate work experience or a specific degree that is connected to the desired certification. These certifications are less common and, therefore, can provide high value and differentiation for the holder. On the other hand, industry-based certifications that are administered by and validated by a third-party organization such as Microsoft Office Specialist (MOS) certifications do not require degrees or work experience; thus, more people are certified because of the limited barriers. In addition, because industry-based certifications (IBCs) are typically not controlled by faculty, they provide added value to the certifications (Hartman & Andzulis, 2019). However, for many business-related majors, Microsoft Excel is viewed as the top technological competency desired for entry-level jobs and is not negatively impacted by high certification levels (Marquardson & Elnoshokaty, 2020; Rotondo, 2020). The versatility of Microsoft Excel, applied to many job capacities, makes it a valuable tool to master and be certified in. Because it is a highly desired skill in business, those certified often receive more job offers, increased wages, and more career mobility (Childs, 2022).

1. PROBLEM STATEMENT

The Information Management (IM) program at the University offers Spreadsheet Applications (i.e., IM 2600) and Business Computer Proficiency (i.e., IM 2010) courses that focus on Microsoft Excel skill development and basic database management skills. IM 2010 introduces core concepts of Microsoft Excel, enabling students to establish a solid foundation in both fundamental and advanced Excel skills. IM 2600 is a comprehensive Microsoft Excel course designed to help students master the full range of Excel's features. Both IM 2010 and IM 2600 are 3-credit hour courses. Successfully completing one of these courses is required by all majors within the Information Systems and Technology department, the Technology Management department, and the Woodbury School of Business.

The Excel MOS Certification was chosen for this study due to the availability of relevant data from these courses. The University offers MOS certification exams through Certiport. University students enrolled in either the IM 2010 or IM 2600 classes can take Microsoft Excel Specialist and Expert certification exams as part of the course curriculum. Students pay a $15 fee when they register for either course. This fee allows the student to take two MOS certification exams.

The MOS Excel Associate Certification should be taken first. This exam is designed for individuals who need to demonstrate proficiency in essential Excel skills. Aimed at entry-level users or professionals who use Excel for everyday tasks, this certification validates core Excel abilities and can enhance job prospects, boost productivity, and increase career opportunities. It is a recognized credential that showcases the ability to handle foundational Excel functions, making candidates more competitive in the job market.

After passing the MOS Excel Associate Certification, a student can take the MOS Excel Expert Certification. This exam is designed for individuals who need to demonstrate proficiency in advanced Excel skills. It enhances career prospects by qualifying individuals for higher-level roles that require expert Excel proficiency, such as data analysts and business intelligence professionals. This certification provides a competitive edge in the job market, increasing earning potential and enhancing professional credibility, making it an asset for career growth and development.

The department has integrated certification exams into the IM 2010 and IM 2600 courses over the past several years. These exams are entirely voluntary, and students can sign up for proctored exams. Data on student participation and pass rates for these exams, both prior to and following the COVID-19 pandemic, has not been systematically collected. However, since the start of the COVID-19 pandemic, most students enrolled in these classes refrain from taking these certification exams, forfeiting the potential benefits of career certifications. Because intentions for certification are high, yet participation in these exams is low at the end of the semester, research is needed to explore why most students intend to get certified in Excel and why the majority do not take the exam.

2. RESEARCH QUESTIONS

This study will explore why IM 2600 and IM 2010 students opt out of participating in the MOS Excel certifications included with course registration. The specific questions for this study are:

1. What are the characteristics of students enrolled in the IM 2010 or IM 2600 classes, and how many had the goal of taking a MOS Excel certification at the beginning of the semester?
2. To what extent do the factors of awareness, preparedness, convenience, career goals, and peer influence affect MOS Excel certification exam participation?
3. Are there differences in the factors influencing certification exam participation based on student demographics?
4. For those who intended to take a MOS Excel certification exam but did not, what were their reasons for not doing so?

3. THEORETICAL FRAMEWORK

This study is approached through the lens of the Expectancy-Value Theory (EVT). The EVT explains how individual beliefs and decision evaluation processes can impact their motivation to engage in specific behaviors (Wigfield & Cambria, 2010). In the case of this study, we are evaluating how the beliefs and decision evaluations of students in the IM 2010 and IM 2600 classes affect their willingness and motivation in seeking out the MOS Excel certification. The EVT is broken into two main components, expectancy and value.

Expectancy is the individual's belief in their likelihood to succeed at a specific goal or task; it is like self-efficacy in that it is the confidence in the individual to succeed at a given task. Expectancy is developed through various factors such as past experiences in engaging in similar tasks, the perceived difficulty of the tasks, and the individual's level of self-efficacy or confidence in oneself to successfully perform an action (Wigfield & Cambria, 2010). Ultimately, high expectancy equates to a higher likelihood in engaging in specific tasks whereas low expectancy deters individuals from participating.

Value is defined as the perceived importance and usefulness of a task (Wigfield & Cambria, 2010). It also includes the elements of enjoyment in engaging in the specific task, the personal importance placed on the task, and the usefulness of the task. When all these value elements are high, then there is a high level of intrinsic motivation to engage in the task even if it is time consuming and difficult.

4. LITERATURE REVIEW

Career Certifications

Many employers feel a gap exists between the technical skills gained through academia and those required for a successful transition into the workforce (Rebman et al., 2021). A solution used by many colleges and universities is the implementation of optional or required industry-based certification exams (Childs, 2022). Technical proficiency is an expected outcome for a successful career transition post-graduation (Rebman et al., 2021). Certifications provide a standardized way to validate proficiencies, increase salary, build student confidence, and aid in the successful transition from education to the workforce (Rebman et al., 2021). These certifications range from skill-specific (i.e., MOS certifications) to a broader range of skills and competencies. Marquardson and Elnoshokaty (2020) examined how career certifications help students achieve entry-level job qualifications. They looked at nearly 12,000 job descriptions in cyber security and broke down the requisite skills needed. The results indicated that Microsoft Excel is a highly desirable skill for cybersecurity majors. Though MOS Excel certification was not required, it is indeed valued, and having a certification in Excel provides evidence of proficiency.

Claiborne (2017) examined how valuable MOS certifications were, specifically examining if required MOS certifications need additional funding, reallocating funding to more effective programs, and determining what MOS certifications are most beneficial to employers. The results of the one-way ANOVA models

employed to examine the value of MOS certification found that nearly 80% of employers found the Excel certification to be extremely or very valuable. The results indicated that the Excel MOS certification positively influenced employers to hire a job candidate more than any other MOS certification. Furthermore, Claiborne (2017) found that among those who completed the Excel MOS certification, about 75% felt it was extremely or very beneficial to them.

Certiport (2023) highlights the benefits associated with MOS certifications. Those who obtained MOS certifications had a 7% average increase in salary compared to those uncertified Gordy (2023). Additionally, many existing IT professionals received an average raise of around $12,000. Furthermore, 91% of hiring managers deemed certifications as an important criterion for applicants and said that these certifications helped candidates stand out from other applicants. In short, there are many benefits to obtaining MOS certifications.

Advanced Excel skills were shown by (Bakir et al., 2018; Formby et al., 2017; Rebman et al., 2023) to increase job marketability and salary for graduates. Formby et al. (2017) found that over 80% of business graduates claimed a good-paying job was their primary goal. Many businesses now require advanced Microsoft Excel skills, and in response to this, AACSB has shifted to requiring more relevant skills like Microsoft Excel to increase post-graduation job placement (Coleman, 2017; Gomillion, 2017)

Despite the benefits of certification, there are common issues among students that prevent them from certifying. Time constraints or poor time management were a common theme found in existing literature. Pittinsky (2015) wrote specifically on the growing importance of credentialing alongside students' progression towards a higher education degree. He not only points out a case for the importance of seeking out industry specific credentials, but he also lists some of the barriers that prevent students from credentialing. Pittinsky (2015) states that balancing education requirements with work, family, and other responsibilities becomes a large barrier in credentialing, or performing work or tasks beyond what is necessary. There is limited existing research on time constraints or competing priorities on MOS certification exam participation; however, the concepts of competing priorities and time constraints among students in higher education are prevalent (Eckel, 2024; Rebman et al., 2021; Shannon, 2024).
Additionally, lack of awareness and guidance was a common issue that prevented many students from participating in certification exams. Childs (2022) and Xu & Trimble (2016) stated that many students are unfamiliar with what certifications were offered, and how they could help them in their career. Furthermore, both sets of authors indicated that when students are aware of the certifications that are available, they have a higher likelihood of participation because they feel it provides a competitive advantage in the job market.

There are many other micro-reasons why students choose not to participate in certification. On a macro-level these reasons can be classified as "other personal issues" which can range from technological issues and constraints to cultural and societal impacts (Eckel, 2024; Pittinsky, 2015; Rebman et al., 2021; Shannon, 2024).

Lastly, Perez (2021) and Turk (2017) found that demographic characteristics such as gender, ethnicity, age, and socioeconomic status have had a profound effect on student participation in certification exams. This is consistent with many other student performance studies that examine the role of demographic characteristics on issues like college and career readiness, higher ed performance, and degree obtainment (Riskas et al., 2024).

5. METHODOLOGY

Research Design
This study primarily follows a quantitative descriptive design. At the end of the survey one qualitative question asked participants if they had a specific reason for not participating in the MOS Certification exam. At the end of the semester, participants will be surveyed to determine their awareness, preparedness, perceived convenience, career goals, and peer influence in taking a MOS Excel certification.

Participants
After Institutional Review Board (IRB) approval, the researchers recruited via convenience sampling using students enrolled in participating classes. This study's participants included students taking IM 2010 and IM 2600 in Spring 2024. Of a total of 639 students enrolled, 250 were surveyed and 34 completed the post-test survey. The post-test survey gathered data on participants' perspectives of the MOS Excel certification exams at the end of the semester.

Ethical Research Considerations
Personal identifiers were not permitted in this study. Participants were asked to create a unique

ID number. Further, all participants were informed of all the details of this study and could withdraw participation at any time. This study followed all IRB guidelines involving human subjects, and no minors could participate in the study. This study provided no substantial risk to the participants.

Benefits of the Study

This study explores why these University students opt out of taking a MOS Excel certification exam, after indicating their initial interest and after being presented with research that demonstrates the benefit the certificate will have on their career and future earnings. This study will inform the University instructors why students are not taking a certification exam and open the door for further research on enhancing instruction or class communication to provide more value to University students.

Data Collection

The survey for this study collected data from the University students enrolled in IM 2010 and IM 2600. It gathered demographic information along with participants' awareness of the certification exams, preparedness for an exam, perceived convenience in taking an exam, specific career goals, and whether peer influence affected exam participation. During the last week of class, the research team administered the post-test Excel MOS certifications survey. The research team independently reviewed the survey instrument to assess its content validity and reliability. In addition, post hoc analysis was conducted to evaluate internal consistency using Cronbach's alpha. The resulting coefficient (α = .805) indicates good reliability, suggesting that the items consistently measure the same underlying construct. For construct validity, a Principal Component Analysis (Varimax rotation) identified three components, cumulatively explaining 65.564% of the total variance. The resulting clear and interpretable factor loadings provided strong evidence that the survey items measure their intended distinct theoretical constructs.

Data Analysis

Quantitative analysis was conducted using IBM SPSS software to answer the research questions in this study. The following statistical analyses were performed:

- Frequencies and percentages summarize the demographic and academic characteristics of the participants in this study to answer research question one.
- Research question two used Kendall's Tau Correlation and frequencies and

Table 1.

Demographic Characteristics of Participants (N = 34)

Characteristic	*n*	%
Gender		
Male	21	61.76%
Female	11	32.35%
Non-binary / third gender	1	2.94%
Prefer not to say	1	2.94%
Ethnicity		
White	31	91.18%
Other	3	8.82%
Age		
18 - 24	25	73.53%
25 - 34	8	23.53%
35 or older	1	2.94%
Grade		
Freshman	7	20.59%
Sophomore	8	23.53%
Junior	17	50.00%
Senior	2	5.88%

percentages to analyze and explore the relationships between the factors assessed (awareness, preparedness, convenience, career goals, and peer influence) and MOS Excel exam participation.

- A Chi-square test answered research question three by examining demographic and academic characteristics differences among respondents and determining if those differences affected exam participation.
- Frequency and percentages determined the most common reasons participants who planned on certifying decided not to.

6. RESULTS

Research Question One

Frequencies and percentages summarized the demographic and academic characteristics of the respondents and determined how many had the goal of taking a MOS Excel certification exam and compared that with the number that took the exams. Of the 34 respondents, 21 (61.76%) were male and 11 (32.35%) were female. The remaining two responses are classified as a third gender or preferred not to say. Because of the small *n* for the third gender and "prefer not to say" group, these responses were processed as missing data for the analysis.

There were 34 responses to the question about ethnicity and 31 (91.18%) self-identified as White, whereas three (8.82%) were classified as "other" race. Age was initially broken into three groupings: 18-24 (*n*=25, 73.53%), 25-34 (*n*=8, 23.53%), and 35 and older (*n*=1, 2.94%). Because of this distribution, the researchers reclassified age groupings to 24 and younger and 25 and older for analysis purposes. Grades were classified into four categories: Freshman (*n*=7, 20.59%), Sophomore (*n*=8, 23.53%), Junior (*n*=17, 50.00%), Senior (*n*=2, 5.88%). For the data analysis, we reclassified these categories as underclass and upper-class. Table 1 has the demographic breakdown.

Research Question Two

A Kendall's tau correlation determined the relationships between exam participation and various reasons for not taking a MOS Excel certification exam. The results revealed several significant correlations, as seen in Appendix A. Kendall's Tau revealed few significant correlations between some respondents' exam participation and various reasons for not participating. A lack of time in the respondent's schedule (Kendall's $\tau = .34$, $p = .03$, $n = 34$) revealed a positive statistically significant correlation with

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Table 2.

Independent Variable	Kendall's t	p-value	N
Awareness of benefits of MOS Excel cert	-0.11	0.48	34
Alignment with career goals	-0.09	0.55	34
Registration process	0.28	0.07	34
Instructor support and guidance	0.07	0.67	34
Informed on perceived benefits	-0.28	0.07	34
How prepared respondent felt	-0.12	0.43	34
Personal belief in passing associate exam	-0.11	0.5	34
Personal belief in passing expert exam	-0.07	0.67	34
Access to study material	-0.29	0.07	34
Classmate or peer influence	-0.03	0.85	34

Kendall's Tau-b Correlations Between Independent Variables and Exam Participation

respondents not participating in the exam.

A statistically significant negative correlation existed between respondents who were adequately informed on signing up for the exam (Kendall's τ = -.31, p =.05, n = 34) and those who did not participate in an exam. Additionally, a statistically negative correlation (Kendall's τ = -.35, p = .03, n = 34) suggests that students who were well-informed about the exam were significantly more likely to take the certification exam reinforcing the importance of clear and constant communication about the process. All the results from the Kendall's Tau correlation can be seen in table 2.

Research Question Three

Demographic and academic categories were combined to meet the assumptions and run a Pearson Chi-Squared test of independence. The researchers examined the relationship between exam participation (yes or no) and academic and demographic factors (gender, ethnicity, age, grade). There were no statistically significant associations between exam participation and gender (Male or Female) $\chi^2(1, n = 34) = .004$, $p = .95$, Cramér's V = 0.011; ethnicity (White, other) $\chi^2(1, n = 34) = .853$, $p = .36$, Cramér's V = 0.158; age (24 and younger, 25 and older) $\chi^2(1, n = 34) = .02$, $p = .89$, Cramér's V = 0.024; and grade level (underclass, upper-class) $\chi^2(1, n = 34) = .006$, $p = .94$, Cramér's V = 0.013.

Most expected frequencies were above five, with a few having expected counts below this threshold, but not enough to invalidate the results (Nowacki, 2017). The small and insignificant Cramér's V values further indicate weak associations between exam participation and demographic variables. Table 3 lists the frequencies and expected frequencies for each examined relationship.

Research Question Four

Research Question Four sought to understand why those who intended to take a MOS Excel certification exam did not. There were options for respondents to select as to why they did not take a certification exam even though they had stated they were planning on taking one. They could select all that applied. Of the respondents who stated they wanted to take a MOS Excel certification exam and did not, 14 (41.18%) felt like it was too much additional work, 7 (20.59%) felt they would not be able to pass the exam, 4 (11.76%) felt registering for the exam was too complicated, 4 (11.76%) do not plan on working with Excel in their career, 3 (8.82%) did not see the benefits in taking the certification exam, 2 (5.88%) were unaware they could take the exam, and no respondent was influenced by their peers. These results are displayed in Table 4.

The last option allowed respondents to select "Other." This option allowed the respondents to state an option that was not on the list but influenced their decision not to take the exam. These "Other" answers were put into ChatGPT 4o to look for trends or discover themes among the respondents. The ChatGPT prompts were

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Table 3.

MOS Excel Certification Exam Participation Based on Demographic Characteristics

	Yes (Exp.)	%	No (Exp.)	%	Total
Gender					
Male	4 (3.9)	19	17 (17.1)	81	21
Female	2 (2.1)	18	9 (8.9)	82	11
Ethnicity					
White	7 (6.4)	22	24 (24.6)	78	31
Other	0 (0.6)	0	3 (2.4)	100	3
Age					
24 and younger	5 (5.1)	20	20 (19.9)	80	25
25 and older	2 (1.9)	22	7 (7.1)	78	9
Grade					
Underclass	3 (3.1)	20	12 (11.9)	80	15
Upper-class	4 (3.9)	21	15 (15.1)	78	19

created by this paper's First/Main author who teaches the University's INFO 2500, Applied Artificial Intelligence Concepts in Organizations (3 Credits) course and who is also developing the University's INFO 3500, AI In Learning and Communication (3 Credits) course. He manually reviewed the ChatGPT output to validate the output. The output provided by ChatGPT 4o and reviews by the First/Main author categorized the responses into five themes (ChatGPT, personal communication, October 9, 2024):

1. Time Constraints
    a. "My own poor time management"
    b. "I couldn't find the time to put aside for the exam."
    c. "I'm a full-time student and mom. I don't have time signing up on a certain day and trying to balance that."
    d. "I didn't have time to pursue the information I would need in order to get registered and show up in person to take the exam."
    e. "I forgot about it. I was going to sign up, but finals distracted me and I completely forgot."
2. Personal Challenges
    a. "Many unfortunate things happened in my life in a very short period."
    b. "Finding someone to help with my kids during test times was also difficult."
    c. "I'm a full-time student and mom."
3. Fear of Failure / Self-Doubt
    a. "Don't believe I would score as high as I would like to."
    b. "Regret and frustration" (related to self-expectations)
4. Already Certified
    a. "Already have the certification from another class."
    b. "I took it in a different class."
5. Regret / Frustration
    a. "I forgot about it. I was going to sign up, but finals distracted me, and I completely forgot. I am very mad and disappointed that I wasn't able to take it."

7. DISCUSSION

The findings of this study provide valuable insights into the factors influencing student participation in the MOS Excel certification exams. Although Excel certifications are widely accepted as beneficial for enhancing job prospects and career mobility (Marquardson & Elnoshokaty, 2020; Certiport, 2023), most of the IM 2010 and IM 2600 students opted out of taking a certification exam despite expressing interest initially. This raises important questions about the barriers that prevent students from completing these potentially valuable certifications.

Table 4.

Reasons Listed on Open-ended Survey Question

Reason for not taking the exam	*n*	%
Too much additional work	14	41.18%
Registration seems too complicated	4	11.76%
I don't see the benefits	3	8.82%
I don't plan on working with Excel in my career	4	11.76%
I didn't think I would pass the exam	7	20.59%
I didn't know we could take a certification exam	2	5.88%
My peers didn't take it, so I don't want to	0	0.00%
Other	11	32.35%

Factors Affecting Participation

The data from the survey suggests that the primary reasons for non-participation in an exam were primarily time constraints as they were the only variable positively correlated with students not taking the exam. Whereas students who felt well or adequately informed were more likely to take the certification exam. Our findings are supported by previous research and align well with the EVT which suggests that students, though they may be aware of the benefits of certifications, may still not complete the certifications because the perceived effort outweighs the expected benefits (Wigfield & Cambria, 2010). This is echoed by Pittinsky (2015) where competing priorities were shown to discourage participation despite the long-term career benefits. One of the strongest recurring themes was time management, with several students citing their busy schedules or other commitments as barriers for preparing for or registering for an exam. This is consistent with existing literature in that students in online classes tend to struggle with time management (Eckel, 2024;) and that other conflicting time commitments have a strong influence on certification exam participation (Pittinsky, 2015; Wigfield & Cambria, 2010).

Awareness of the exam was also found to be significant in certification exam participation, this also aligned with existing EVT research which has found that lack of awareness was a primary reason for students not participating in certification exams (Childs, 2022; Xu & Trimble 2016; Wigfield & Cambria, 2010).

We found that most participants were aware of the benefits of MOS Excel certification; however, this did not closely correlate with participation in the certification exams. This lack of participation suggests that even though students recognized the value of certification, other factors such competing priorities may have influenced their decision not to take an exam.

Demographic Characteristics

One of the essential topics for discussion is the influence of demographic characteristics. The results of the survey indicate that demographics such as gender, ethnicity, age, and grade level did not significantly affect exam participation. This lack of association suggests that the barriers identified in this study may be common across student groups rather than pinpointing specific demographics. However, it is also important to note that there was a lack of ethnic and gender diversity among the sample. This is a more likely reason why demographic characteristics were not significant in our study. The lack of significance among varying demographic characteristics was contrary to the existing literature (Perez, 2021; Turk, 2017). Perez (2021) and Turk (2017) point to demographic factors such as socioeconomic status, ethnicity, gender, and age as significant factors to certification participation. Our small sample size (n=34) may have minimal statistical influence on the study, so further research with a larger and more diverse sample size is warranted.

Implications for Future Research

A key implication of this study is the need for more efficient and accessible procedures for students interested in obtaining an MOS Excel certification. Given that time constraints were a major barrier, the IS&T department could implement regularly scheduled in-class certification days. Childs (2022) showed that integrating certifications into the coursework increases participation rates by eliminating competing priorities.

Additionally, future research involving a pre & post survey comparison to present structured pre-post-survey data through a side-by-side pre/post survey results comparison would be

beneficial as it would allow an EVT longitudinal study to capture how student's beliefs about utility, expectancy, and cost evolve across time. A future study could also explore methodologies for removing or alleviating barriers such as in-class registration, integrating more exam preparation into the course curriculum, and soliciting more institutional support in hopes of mitigating personal challenges faced by students. Lastly, with the increase of Artificial Intelligence (AI) technologies, reevaluating the demand for MOS certification and the impact that certifications have in the AI age would be necessary.

8. CONCLUSION

Many of the students enrolled in the IM 2010 or IM 2600 courses initially intended to take one of the MOS Excel certification exams; however, participation remained low. While this study provides valuable insights into the factors influencing student participation in Excel MOS certification, the small sample size (n=34) and predominately white, male demographic limits the broader application of the findings. Statistically, it was found that time constraints and competing priorities were the biggest factor in students not participating in the MOS Excel certification exams, but as awareness of the benefits increased, so did exam participation. By applying the principles of the Expected-Value Theory, universities can increase certification participation by enhancing students' perceived value of MOS Excel certification while also reducing perceived obstacles. By integrating certification preparation and test days into the existing curriculum and by streamlining the registration process, it can boost student confidence in their ability to succeed. These adjustments could better align students' expectations with their career goals, improving their job market competitiveness and long-term career outcomes.

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APPENDIX A

Means, Standard Deviations, and Intercorrelations for Scores on Reasons for Foregoing Exam

Variable	n	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Did you take the exam?	34	1.62	0.493	0.00													
2. I know the benefits of MOS Excel Certification.	34	3.71	1.194	-0.114	0.00												
3. The certification aligns with my career goals.	34	3.56	1.353	-0.094	.645**	0.00											
4. Registration is a major obstacle.	34	2.91	1.215	0.281	0.01	-0.043	0.00										
5. Time constraints prevent me from taking the exam.	34	3.59	1.417	.343*	0.103	-0.103	0.255	0.00									
6. I received guidance from instructors/mentors.	34	4	1.181	0.069	.465**	.361*	0.045	0.099	0.00								
7. I understand the benefits of the exam.	34	3.5	1.285	-0.284	.736**	.510**	-0.12	0.021	.436**	0.00							
8. I know how to sign up for the exam.	34	3.38	1.349	-.314*	.453**	0.215	-0.229	-0.05	.303*	.564**	0.00						
9. I know what is covered in the exam.	34	3.09	1.379	-.352*	.332*	0.226	-0.136	-0.137	.292*	.390**	.650**	0.00					
10. I feel prepared for the exam.	34	3.21	1.25	-0.124	0.216	0.242	-0.025	-0.175	0.166	0.148	.282*	.513**	0.00				
11. I believe I would pass the MOS Associate Excel exam.	34	3.91	1.215	-0.108	0.243	0.224	-0.184	-0.199	.343*	0.257	.401**	.405**	.560**	0.00			
12. I believe I would pass the MOS Advanced Excel exam.	34	3.47	1.261	-0.066	0.186	0.103	-0.014	-0.088	0.284	.299*	.409**	0.271	.521**	.517**	0.00		
13. I have access to study resources.	34	3.79	1.366	-0.287	0.263	0.275	-0.059	-0.102	.375*	0.259	.503**	.643**	.478**	.460**	.432**	0.00	
14. My peers influenced my decision to take the exam.	34	2	1.181	-0.03	0.093	0.005	0.158	0.142	-0.1	0.152	0.029	-0.09	-.333*	-0.209	-0.059	-0.219	0.00

* Correlation is significant at the 0.05 level (1-tailed).
** Correlation is significant at the 0.01 level (1-tailed).

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