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The Role of the students' family background, individual attributes and pre-college schooling in student retention

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ABSTRACT

This communication aims at explaining a relation of causality between the student's background factors and student retention. It uses the Tinto theory as theoretical background. A survey was conducted on 1,400 students in first year and 1,000 students in third year in universities. The researchers used SPSS version 22, the Chi-square and t-test methods are use in order to analyze data. The study shows the family background, the individual attributes and the pre-schooling college affects significantly the retention decision. The English level of the student is a major factor in retention; this opens the door for a re-consideration of the educational system based on foreign languages. The study is particularly useful for universities. In fact, the universities can use the findings to draw forecasts about the student's schedules for continuance and to develop strategies for student retention.

Key words: Student, University, Retention, Background.

1-Introduction

Student retention is one of the most debatable issues in the field of Higher Education Institutes (HEIs). The main purpose of this study is to identify the background factors affecting student retention at different Lebanese Universities. This study is guided by Tinto's (1993) student integration theory. This theory is longitudinal and dynamic and views student retention decisions largely as the results of interactions between the student and the academic and social systems of the institution (Tinto, 1975, 1993). The theory suggests that students enter a particular college or university with a set of background characteristics. These characteristics include family background, individual attributes and pre-college schooling.

2-Literature Review

This paper discusses the literature on the problem of student dropout in higher education. Although the research is focused on the case of Lebanon, it explores academic and theoretical studies developed for various countries. An analysis of theoretical models and approaches to student retention allow the researcher to develop a coherent view of the topic.

2-1-Student Retention

Performance Indicator

Universities may refer to various indicators to measure their performance. For example, Katsikas and Dergiades (2009) showed how degree grades that assess academic performance of students were used as performance indicators at Greek universities. Another factor that measured performance was the duration of studies, estimated in extra years over the normal programme duration. Nevertheless, student dropout rates were not taken into consideration by universities, although it could be an important performance indicator for higher education institutions. Abramo and D'Angelo (2015) highlighted bibliometric methods to measure university performance. The suggested indicators include the performance of individual students and the performance of scientific fields that exist within the institution (El-Chaarani and El-Abiad, 2020). Again, the suggested indicators lack dropout rates as a prominent performance indicator of a university.

In Australia student retention is considered to be an important performance indicator, as it is included as a key measure in educational quality through institutional statistics. The

Commonwealth Government's Learning and Teaching Performance Fund also pays attention to the retention factor.

Meanwhile, in the UK student retention is represented by two indicators. The first is the completion rate that estimates the share of starters in a year who continue the study until they obtain the qualification. Another measure of retention is the continuation rate, estimating the share of students enrolled in education in the year following the first entry (NAO, 2007). In the UK these indicators are aligned with a benchmark for each university, which takes into consideration students' entry skills and subjects studied. Nevertheless, the focus of managers and teachers is made on creating an environment for student learning and engagement that promotes student participation in activities (Crosling et al., 2009). This indirectly relates to integrational student retention factors, but does not explain how universities may manage retention per student.

Attrition cost

Student retention is an important indicator not only as a measure of institutional quality. A large number of students who drop out after their first year at the higher education institution where they first enrol are associated with high costs. An analysis of US data demonstrated that during the five years over 2003-2008 local governments allocated over \$6 billion to institutions to help pay for the education of students who eventually dropped out and did not return for a second year (Schneider, 2010).

UK data also shows impressive figures. According to the Higher Education Funding Council for England, over 8 per cent of undergraduate students drop out during their first year. This costs universities over £30,000 per student, apart from about the costs to students (Tickle, 2015). Dropouts are associated with the costs during student teaching, lost earnings and unrealised tax revenue. Furthermore, there are costs of student attrition to societies. Education contributes to human capital that promotes economic activity and development. Education is one of the key elements of economic growth, as it directly affects productivity growth, entrepreneurship, and employment opportunities (Latif, 2015).

Student attraction strategies

Universities often focus on student attraction and concentrate on the way to increase student entrance rates rather than decrease attrition rates. For example, Alpay (2013) analysed several European universities in terms of entry strategies used by the institutions

to attract students. Universities of the UK attracted students through the flexibility of schedules and breadth in the curriculum. Although the analysis was limited to engineering students only, it demonstrated that universities paid relatively little attention to the management of retention and concentrated on the management of student entrance. Research by Frolich and Stensaker (2010) related to several Norwegian institutions demonstrated that student recruitment strategies were based on student and institutional features. Higher education institutions revealed substantial creativity in trying to adapt to general trends and students' perceptions to attract students. Meanwhile, theoretical models (Tinto, 1975; Bean, 1980) underline the fact that student-level characteristics are also likely to influence retention rates. This fact is not taken into consideration by universities and there is a gap in the literature in this respect.

Academic studies pay little attention to the methods and models for student retention, but rather focus on student entrance. Literature that examines student attraction strategies contributes to the approaches that universities develop to recruit students. Higher education institutions follow marketing activities that are established to provide information and convince students to apply. These marketing techniques include outreach activities, such as school visits, post-offer activities, and attending fairs. Intermediate activities involve attending and holding professional conferences to influence high school counsellors. On-campus events may be related to online chats, visitors' centres, video conferences, and maintaining a university website to deliver up-to-date information to future students. Universities pay much attention to their reputation and program quality as ways to attract more students (Wang and Lang, 2010). While these factors are considered to be important for student attraction, higher education institutions pay less attention to the management activities that could promote retention. However, some universities manage retention through special programmes.

2-2-Factors Influencing Student Retention

The literature suggests 4 factors influencing the student retention: Integration factors, student experience, institutional factors and student background. The emphasis will be on the student background, while little exploration will be for the other factors.

Integration Factors

An analysis of the US case in terms of student retention was undertaken by Roberts and Styron (2010) who examined the perceptions of services, experiences, and interactions of students in the College of Education and Psychology. The analysis was based on a questionnaire consisting of 51 items. The majority of items, namely 32, inquired about the attitudes and perceptions with respect to social connectedness, academic advising, on-campus engagement, faculty approachability, university business procedures, and learning experiences. The importance of residency was also confirmed by Schudde (2011), although the study focused on campus versus non-campus residency. An analysis of US students was based on propensity score matching drawn from national longitudinal data. The research showed that living in university-owned housing indeed could affect retention by decreasing the probability of a drop out. The differences between the two studies are related to the factors included in the models.

Other items were used by Roberts and Styron (2010) to obtain demographic and status, as well as the utilisation by students of different campus resources. The findings revealed that social connectedness was the strongest determinant of retention. Retention was measured by students' return to the university during the semester. Meanwhile, faculty approachability was the second strongest determinant. At the same time, involvement and engagement was the only factor that affected retention negatively. Nevertheless, the study was limited to one university only and focused only on one semester to measure retention. A broader perspective could be developed if more evidence on the topic was collected. Another research study confirmed the importance of academic advising, and it was more focused on this factor alone (Swecker et al., 2013). Empirical findings showed that the number of meetings with an academic advisor could substantially affect retention. Despite the differences in the factors that were at the focus of the studies, both Roberts and Styron (2010) and Swecker et al. (2013) showed that integration was an important feature that could reduce dropout rates.

Student and faculty relationships were also explored by Lillis (2011). The study assumed that the frequency of student-faculty interactions and the intention to stay were positively associated. In contrast to other studies (Schudde, 2011; Swecker et al., 2013), the research included another factor in the list of integration features that could influence retention.

Specifically, it was suggested that mentor-level characteristics, such as emotional intelligence, could be important for attrition rates.

Another important factor for retention was the ability of a student to have a sense of belonging within the educational institution, according to O’Keeffe (2013), which is also related to integrational factors. The study underlined the importance of a supportive, caring and welcoming environment within the institution. Positive student and faculty relationships, well-resourced counselling centre and diversity and difference encouragement were found to be the key ways to success. However, the research was limited to rather broad categories without exact recommendations for universities.

Student Experience

Another strand of literature underlines the prominence of student experience rather than integration factors. Although these categories can be closely related, student experience implies the expectations and perceptions of students during their studies. This category involves motivation and commitment of students to their courses and educational process. For example, Campbell (2013) explored the case of the University of Maryland in the mid-Atlantic region and obtained data from several surveys and databases. The findings confirmed that the perceptions of students were prominent factors that contributed to enrolment patterns. The study argued that a simple approach that measures a student’s general attitude toward the university could have similar predictive power in terms of retention to the measures of financial aid, GDP, or other characteristics. The research emphasised the prominence of freshmen expectations, behaviours, and attitudes as the predictors of various enrolment patterns at a large public university.

At the same time, Soria et al. (2013) demonstrated a more specific university-level factor that could influence student retention. The authors examined the prominence of library use by undergraduate students. The analysis was limited to a single university in the US and focused on first-time, first-year students. The impact of library usage on the academic success and retention was confirmed. The findings were based on a regression analysis that demonstrated the ability of library usage to predict academic success and retention rates. However, the study explored association between the factors rather than causative influence. Empirical evidence revealed that library users had a higher degree of retention than non-library users. Thus, different studies underline the importance of analysing both

university-level and student-level characteristics as possible determinants of student retention. Library use can be viewed as a form of students' motivation, which is related to student perceptions factors.

A quantitative analysis of the importance of library use for retention was undertaken by Haddow (2013). The analysis was based on undergraduate students who enrolled for the first time in an Australian university. The conclusions demonstrated that students who logged-in to authenticated sources and borrowed from the library at higher rates were more likely to be retained. The findings were in line with the observations of Soria et al. (2013), although they were obtained for a different sample. However, Haddow (2013) also included student background factors in the research and showed that socio-economic background was not associated with library use or retention. Library use may be viewed both as a part of student motivation category, and as an integration aspect. This demonstrates that the distinction between different categories is not clear. At some points the categories of factors that affect student retention may overlap.

Institutional Factors

Retention literature points out numerous categories that may affect student retention. One such factor is institutional context. It includes social climate, academic sphere, and physical setting. An Empirical study by Thomas (2002) explored the case of the UK with respect to student retention and success. The author proved the importance of institutional habitus in the context of a college in England. The investigation examined such factors as academic experience, institutional expectations and commitment, academic preparedness, academic and social match, finance and employment, family support, university support, and financial issues. These factors are mostly related to student background, experience, and integration. However, the research proved that institutional factors were most significant. Furthermore, Lau (2003) found that such institutional factors as dormitories, study rooms, facilities for the disabled, career centres, social and professional organisations were important for student retention.

Adamopoulos (2013) showed that Professors were the most prominent factor in online course retention. Other positive determinants were Assignments and Course Material. Negative factors included difficulty, duration, and workload. Thus, the research provided evidence of rather specific characteristics. However, more general socio-political factors

may also play an important role in student retention. These factors include higher education regulation, allocation of governmental resources, and scholarships. The prominence of scholarship programs was confirmed by Yelamarthi and Mawasha (2010), as they affected student retention rates. Furthermore, Dakin et al. (2015) found that government regulations on student loans affected student retention. An analysis of a higher education environment in the context of the US Gainful Employment Regulation of 2011 program revealed that the learning environment significantly affected student retention rates at for-profit institutions. A qualitative open-ended data analysis was applied and the research concluded that retention and governmental regulations were linked through the loan default problems.

Student Background

Student background is another factor that is likely to influence both academic success and retention rates of students. An interesting data mining approach was undertaken by Yu et al. (2010), who investigated possible determinants of student retention. The research was based on the dataset of over 6,600 sophomore students in a US university over two years. The dependent variable of the research was a dichotomous retention variable. Retention was defined as persisting enrolment during the specified time period. The study found that residency, transferred hours, and ethnicity were the key pre-college factors that affected retention, and these factors were student-specific categories. Meanwhile, all other factors were characterised by mixed results depending on the method of analysis (Yu et al., 2010). However, alternative results were obtained by Delen (2010) who also referred to a data mining technique. The research was also limited to a single US institution, although it was focused on five years of data. The findings demonstrated that the most significant determinants of student retention were those associated with past and current educational success. Another factor was related to financial support received by students. Retention could be improved through enrolment of more academically successful students and provision of financial assistance to them.

In contrast to the findings of Campbell (2013) and Delen (2010), empirical analysis by Kennamer (2010) demonstrated the issues with financial aid as one of the determinants of student retention. The research was based on the data from the National Center for Educational Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS) over 2000-2006. The research examined institutions that received local funding and

compared them to those that did not receive significant local funding. Furthermore, the study differentiated between rural, urban, and suburban community colleges by type. The finding revealed that enrolment increase during the five years was overwhelming compared to the federal direct grant student aid. The ability of student aid to have any positive influence on retention in the community colleges of the US was very limited.

An investigation by O’Keeffe (2013) was based on a slightly alternative approach, as it examined key risk factors that lead to attrition, rather than factors that support retention. The study figured out several risk factors, such as mental health issues, ethnicity, socioeconomic status, and disability. The study showed that first year students and higher degrees by research students were more likely to not be retained.

At the same time, Baker and Robnett (2012) examined the importance of race and social support as the determinants of college student retention. The research was based on an observation that African American and Latino students were less likely to stay enrolled in college compared to students from other ethnic or racial background. Thus, some racial and ethnic minorities were found to be less likely to get a college degree. Empirical research was focused on a public university in California and university-limited evidence showed that African American students were significantly less likely to leave college compared to other students. Meanwhile, Latino students were considerably more likely to leave than other students. The success of minority students was determined by the experiences in college rather than by pre-college preparation. Furthermore, social support played a prominent role in retention. In this paper, the student background includes family background, individual attributes and pre-college schooling.

3-Research Model

Tinto Model

The Tinto Model is one of the most widely discussed theoretical models of student retention in academic literature. This model is rather comprehensive and covers various characteristics of students, environment and institutions that are likely to affect student retention. So, the theory receives much attention and is considered to be the dominant theoretical framework.

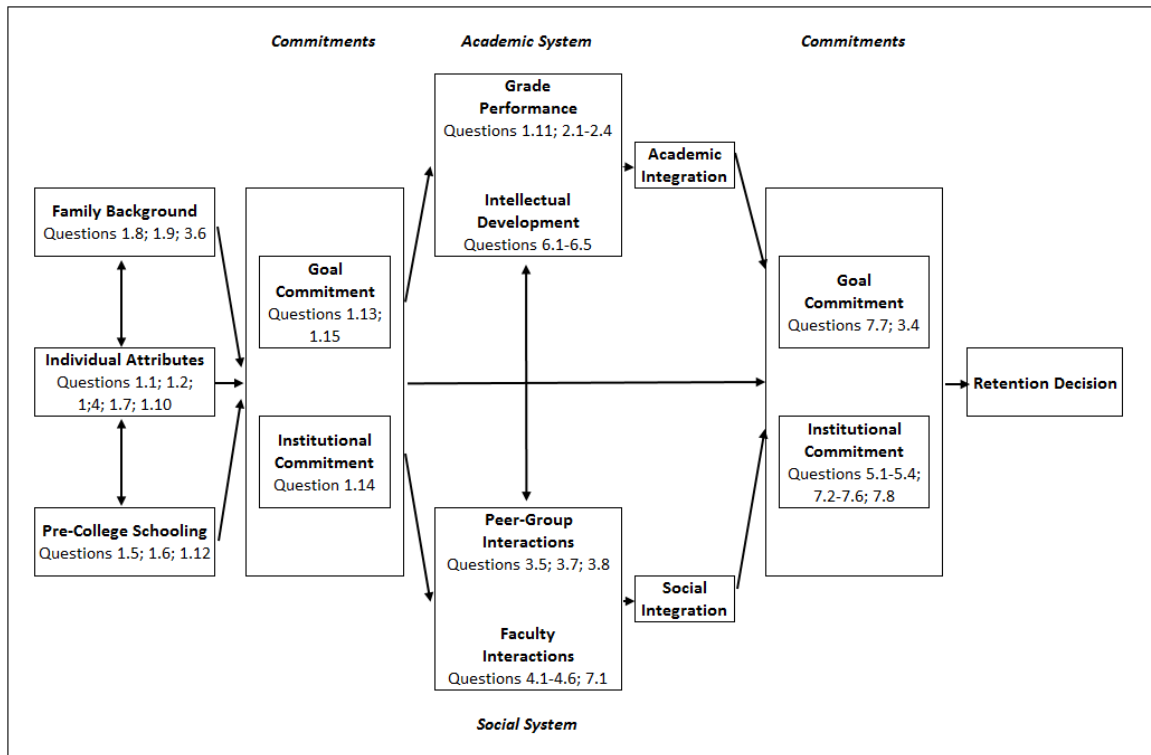
The Tinto Model developed by Tinto (1975; 1982; 1987; 1993) is one of the most widely discussed approaches to the issue of student departure because of its comprehensiveness.

It is the key interaction model that is based on a complex theoretical paradigm and refers to sociological roots. The origin of the model was determined by the assumptions suggested by Spady (1971).

The applicability and relevance of the Tinto Model is based on its relatively rigorous structure. For example, Braxton et al. (1997) figured out several major elements of the model. The first is student entry characteristics that significantly influence the probability of persistence in college. The second is the level of academic integration that is associated with the degree of ultimate commitment to the goal of college graduation. The third is the degree of social integration that influences subsequent commitment to the college. The fourth is the level of commitment to the college graduation college, which in turn affects the probability of student persistence in college. The fifth is the degree of subsequent commitment to the institution that is associated with the probability of student persistence. Thus, the Tinto Model is a multi-faceted approach that takes into consideration various factors that are likely to determine retention and departure of students. Moreover, it is able to capture the factors at different periods of students' college career. Specifically, it takes into account initial student characteristics at the entry to college, and eventually considers the factors that emerge during his or her college career.

The Tinto Model that is the basis of the questionnaire is presented in the below Figure.

Figure 1: Tinto Model and Variables



The Figure reflects what questions are attributed to each of the categories of the Tinto Model. The first section of this model includes the three noted student background: family background, individual attributes and pre-college schooling. On the basis of retention indicators, the research applies the Tinto Model to develop the hypotheses about possible determinants of students' retention decisions.

The key assumption of the Tinto Model is the impact of background characteristics and individual attributes, academic integration, and social integration on retention decision.

Background factors are the key drivers of retention, according to the Tinto Model. The main research hypothesis of this paper is as follows:

H0: Family background, individual attributes, and pre-college schooling characteristics are significantly different across sophomore and senior students.

Variables

The questions of the questionnaire cover eight constructs of the Tinto Model, namely family background, pre-college schooling, individual attributes, initial goal and institutional commitment, social integration, academic integration, later goal and

institutional commitment, and retention. We are concerned here with the variables that relate the student background to the student retention.

The first category is family background that is represented by three questions. The two of these questions inquire about the highest educational level of the respondent's mother and father respectively. The questions are supported by the evidence provided by other scholars in previous literature (Fike and Fike, 2008; Tym et al., 2004; Friedman and Mandel, 2011). The answers are based on a six-grade scale, from Brevet to Doctorate. The third question estimates whether the respondents' parents encourage them to continue the studies. This question is motivated by the research of El-Hassan (1998) and Thomas (2002). The answers are based on a five-point Likert scale, from Strongly Agree to Strongly Disagree. A 5-point Likert scale has been applied by previous studies, which motivates the selection of this system for this thesis (Devonport and Lane, 2006; Nicpon et al., 2006). The other categories of this model will be investigated through other research papers.

The second category explores individual attributes and is represented by five questions. These questions reflect respondents' gender, age, major, employment status, and source of financing. Gender is represented by two categories, while age ranges are distributed across four categories. The importance of gender and age was confirmed by previous studies (Bean, 1980; Saba' Ayon, 2015; Abouchdid and Nasser, 2002), which justifies the inclusion of these variables in the questionnaire. There are eight Majors for the respondents to choose from. Employment status has three categories to differentiate between not employed, part-time and full-time employment. Source of financing has four answer options. These factors can be important for retention or dropout decisions, according to the findings of Latif (2015), Trotter and Roberts (2006), Buckley et al. (2015).

Pre-college schooling is represented by three questions. They obtain information about private versus public school background, high school degree, and the first English course. Pre-college education as a possible determinant of retention was explored by Gifford et al. (2006) and Yu et al. (2010).

Background-related goal commitment is represented by two questions. The first one explores the reasons to continue education after high school and includes five answer options. The second question explores whether the respondent ever registered at a university, and is based on 'Yes' or 'No' answers. Goal commitment factors were

previously explored by Yindra and Brenner (2002), Irizarry (2002) and Johnson-Lutz et al. (2015).

This question implies six options to choose from. Educational institution choice was previously analysed by Kim (2014), which justifies the questions included in the survey.

4-Methodology

Research philosophy, method and strategy

The research maintains the philosophy of positivism. The approach of deduction is the basis of the analysis, as the study relies on existing theory of student retention developed by Tinto (1993) to derive the hypotheses.

Mixed methods research is applied in the investigation, namely case study of the University and survey of the students. The quantitative methods are represented by statistical analysis of the survey results in SPSS. The qualitative methods are represented by the recommendations made to the Vice President during the course of an interview with him. Mixed method research is identified as most appropriate for this investigation, whereas a cross-sectional analysis is performed.

The analysis is based on the questionnaire distributed across the School of Business students. The questionnaire was distributed across the first and third year students. Since the responses of the students are collected during a relatedly short time frame and are not compared to previous surveys of the same students, cross-sectional analysis rather than time-series analysis is used. The position of the researcher allowed for distributing the questionnaire among 1,600 first-year students who are referred to as sophomore students, and 1,000 third-year students, or senior students.

Among 1,600 first-year students, there were 1,491 respondents. Thus, it can be effectively treated as analysis of total population and not a random sample.

The questionnaire was distributed across all nine campuses in an envelope with the name of the course and instructor name on every envelope. Sophomore students were targeted in “Principles of Accounting I” course, since all first year students in all majors are required to register in this course. Senior students registered in the advanced course for each major were targeted in all nine campuses.

5-Findings

Hypothesis one assumes that first-year (sophomore) and third-year students (senior) differ significantly in family background, individual attributes, and pre-college schooling characteristics. Reliability analysis is performed to ensure the validity of the dataset. The analysis is based on Cronbach's Alpha statistics that estimates the internal consistency of the data (Zeller and Carmines, 1980). The calculation is based on the correlation between the responses in a questionnaire. Cronbach's alpha ranges from 0 to 1, and a value at or above 0.7 would be considered to be sufficient. The calculated Cronbach's alpha indicated a value of 0.82.

Family Background

The family background is the first set of characteristics that is explored by Hypothesis One. These characteristics constitute one of the key constructs of the Tinto model. Three questions cover this component. The differences in the responses to three associated questions are studied by performing the chi-square test. The results are shown below:

Table 1 Chi-Square Test for First-Year and Third-Year Students: Family Background

	Chi-Square test statistic	Asymp. Sig. (2-sided)
Mother's highest educational level	14.262	.027
Father's highest educational level	15.507	.017
Parent encouragement	11.597	.021

The test output clearly indicates that the student responses change significantly depending on the academic age. To be more precise, the chi-square statistic is significant at the 0.05 level for both questions regarding the parents' education. To determine the exact effect of the academic year, the response summary is analysed for both student groups.

The most significant change is observed for the number of respondents with mothers having elementary education as the highest education level. The mothers of students who continue to study in the third year appear to be better educated, as the numbers for bachelor degree and Baccalaureate seem to increase.

Similar trend can be noticed regarding the students' fathers. The significance of the chi-square statistic for these two questions can be attributed to the senior year students generally having better educated parents.

Parent encouragement is also significant at the 0.05 level. To determine how the perception of the encouragement differs across two groups, the responses for the last question of the family background construct are examined more closely. Overall, the parents' encouragement to continue education appears to increase with academic year.

Hypothesis one assumes that first-year and third-year students noticeably differ in their family background. The evidence provides support for the hypothesis, and is consistent with the studies that investigated the importance of students' background (Soilemetzidis and Dale, 2013; Ashby, 2004). It may be suggested that the difference in parents' encouragement and education positively influences the willingness of students to continue their education. Family background might also affect the decision indirectly through other factors such as individual attributes and pre-college schooling.

Based on the analysis, it could be argued that a relationship exists between family background and students' retention. The responses for all three questionnaire items are found to differ across educational years. Superior parents' educational level and stronger encouragement appears to be linked with respondents who continue their education. Therefore, this provides substantial evidence in support of Hypothesis One.

Individual Attributes

Hypothesis one suggests that students' individual attributes such as gender, major, and employment status, may be different across senior and sophomore students. Possible discrepancies between two groups could provide further support for the hypothesis in addition to the observed differences in family background.

The component of the Tinto model covering students' individual attributes is represented by five questions. Table below provides the summary of the performed chi-square tests to determine if any differences across two respondent groups exist.

Table 2 Chi-Square Test for First-Year and Third-Year Students: Individual Attributes

	Chi-Square test statistic	Asymp. Sig. (2-sided)
Gender	11.403	.001
Age	778.199	.000
Major	46.992	.000
Employment Status	32.766	.000
Tuition fee payment	16.076	.003

Based on the results, it can be argued that all examined individual attributes are significantly different between sophomore and senior academic years. More specifically, the chi-square test statistics are significant at the 0.01 level for gender, age, major, employment status, and tuition fee payment. This is consistent with Hypothesis One, and indicates that individual attributes could have an indirect effect on students' retention decision.

While more male students appear to study in the first year, this is reversed for the third year. More specifically, the number of female students increases from 44.5% to 51.5%. As a result, a significant difference across groups is reported based on the chi-square test. This could indicate that gender as an individual attribute is affecting academic and social integration, which would influence the students' retention.

Respondents' age is likely to differ significantly between two examined groups. As expected, more students in higher age brackets are naturally observed for the senior year. This explains the extremely high value of 778.20 for the chi-square statistic.

The most noticeable change is related to the Management major, with the figure dropping from 23.5% for the sophomore year to 15.2% for the senior year. This might be partially explained by the major being associated with the highest absolute number of students during the first year, which is equal to 353. Some changes can also be identified for Marketing and International Management majors, which increase from 8.0% to 11.0%, and from 5.1% to 8.3%, respectively.

The findings regarding the choice of major provide additional support for Hypothesis One. This may represent the complex impact of background attributes on the willingness and capability to continue education. Furthermore, this is consistent with the study of Gibbs et al. (2006). It was argued that students perceived their objectives differently depending on the major choice. Alternatively, it could be attributed to both motivation and the choice of major being influenced by similar factors, which agrees with Yindra and Brenner (2002). This point of view is also supported by the findings regarding family background and the discrepancy in parents' encouragement.

The significance of the employment status changes across two groups is further analysed. A clear trend can be seen based on the changes in responses. The number of unemployed students decreases from 62.3% to 52.6%. At the same time, more students take up either

full-time or part-time jobs, with the corresponding figures increasing from 15.0% to 22.8%, and from 21.7% to 24.1%, respectively. The change in the employment status of the students would likely affect their grade performance and academic integration, leading to changes in retention.

A related factor of the financing source for tuition fees is examined. The results mirror the changes observed in students' employment status. The greatest difference between two groups is the increasing number of self-funded tuition payments, with the corresponding figures of 22.7% and 27.9% for first and third years, respectively. This can be directly associated with the more students being employed either part-time or full-time. The significance of both employment status and tuition financing source further reinforces the claim that individual attributes differ substantially across sophomore and senior students. The findings on the source of financing and employment status support Hypothesis One, which suggested that individual attributes would differ across first-year and third-year respondents.

Individual attributes seem to noticeably affect students' retention. Respondents' choices differ distinctly for all questionnaire items, which covers gender, age, major, employment status, and payment for tuition fees. Therefore, the analysis provides additional support for Hypothesis One, as significant differences in individual attributes are observed across sophomore and senior years.

Pre-College Schooling

The final set of characteristics covered by Hypothesis One represents the students' pre-college schooling. Differences in high school background, degree, or first English course may indicate that retention is indirectly affected by background factors.

The pre-college schooling construct of the Tinto model is represented by three questions.

Table 3 Chi-Square Test for First-Year and Third-Year Students: Pre-College Schooling

	Chi-Square test statistic	Asymp. Sig. (2-sided)
High School background	9.838	.007
High School Degree	18.866	.000
First English Course	93.171	.000

Based on the performed chi-square tests, responses covering all three factors are different across first-year and third-year students. To be more precise, the test statistic is significant

at the 0.01 level for high school background, high school degree, and first English course. These findings provide substantial support for Hypothesis One, as all included characteristics that represent pre-college education appear to differ between two groups. This result may show that superior academic background could facilitate the integration in the University. The advantage in knowledgeability and study skills might translate into easier academic integration, which would lead to stronger performance and higher retention. This is consistent with Soilemetzidis and Dale (2013) who suggested that stronger pre-college background could be associated with superior grade performance. Likewise, it could be more challenging to adapt and acquire necessary skills for students that are less proficient in English (Ashby, 2004). This would explain the observed statistical significance of the chi-square test.

The next analysis provides information to better explore how responses regarding school background change between two groups. The results suggest that students from private schools are more likely to continue education compared to respondents from public schools. The number corresponding to private schools increases from 53.7% for the first year to 59.6% for the third year. It could be argued that students from private schools are associated with better background-related goal and institutional commitment. In turn, this would affect academic integration through superior grade performance and intellectual development, increasing students' retention.

The findings on high-school background are consistent with Hypothesis One. They show that superior academic position of students from private schools may have helped in adapting and meeting academic requirements. The result further reinforces the perspective on background characteristics as factors that could facilitate students' integration in the University.

The following analysis illustrates how high school degree might be important for student retention. The number of respondents with Baccalaureate degrees increases from 68.2% to 76.1% for the first and third year, respectively. The difference might indicate that students with the Technical Baccalaureate degree are more likely to drop out of education. Superior background could be positively affecting students' grade performance and academic integration, leading to a higher retention rate.

Similar trends are observable in the context of first English courses. The results seem to indicate that students more proficient in English from the start are more likely to continue their education. To be more specific, the number of respondents who took ENGL 051 or ENGL 101 dropped substantially from 26.7% to 13.1% and from 16.9% to 13.3%, respectively. At the same time, more students associated with ENGL 151, ENGL 201, and ENGL 251 are present in the third year compared to the first year. Similar to the high school background and degree, this shows that superior background-related integration and commitment might be crucial for students to continue their education.

The discrepancy in the first English course further reinforces the validity of Hypothesis One. Indeed, the proficiency in English appears to serve as a mediating background factor, facilitating the students' academic and social integration. This point of view is consistent with Ashby (2004), as respondents who took more difficult English courses could be associated with stronger academic background. Put differently, their ability to meet academic standards and acquire useful information would be inhibited by poorer communication skills. Thus, the observed difference in the first course across sophomore and senior students supports Hypothesis One.

Similar to other background questionnaire items, the pre-college schooling questions appear to be important in determining students' retention. To be more specific, noticeable disparity is found between educational years in responses on high school background, high school degree, and first English course taken. It could be argued that superior pre-college education, including higher proficiency in English or private school background, affects students' retention. The results suggest that Hypothesis One is valid, as substantial differences in pre-college schooling are observed across first-year and third-year respondents.

The analysis of background factors reveals that family background, individual attributes, and pre-college schooling can be important in explaining students' retention. Significant evidence in support of Hypothesis One is found for each of the categories. Thus, it may be argued that the hypothesis is valid, and distinct responses across sophomore and senior students indicate of the relationship between these factors and retention. However, the impact of these components might be indirect as suggested by the Tinto model. Put differently, background characteristics of the students may improve retention by

strengthening background-related commitment, which would positively affect academic and social integration of the students.

The findings reflect common characteristics of the students. In particular, the students of the University are mostly Lebanese that come from a lower socioeconomic background. These characteristics are reflected in responses to several questionnaire items. The students are likely to live with their parents which are represented by a substantially higher proportion of respondents funding their education with the help of their family. This may suggest that the existing socioeconomic environment in Lebanon precludes students from having sufficient funds to cover their tuition. As a result, background factors could be more influential with regards to goal and institutional commitment.

Furthermore, a large number of students appear to work part-time or full-time. This is represented by a significant proportion of both first-year and third-year employed respondents. This further reinforces the perspective on a typical student having financial issues and as such forced to combine education and work. These considerations suggest that the socioeconomic background of students could be one of the defining factors behind commitment and retention. At the same time, the nature of the Lebanese students may limit the applicability of the results to other educational systems which are implemented in more favourable socioeconomic environments. Nevertheless, the findings are crucial in describing the respondents and the factors that might influence their retention decision.

The results show that students' motivation, perception of goals, skills, abilities, and willingness to continue education might be affected by factors that are not directly linked to the University. The validity of Hypothesis One would indicate that the Tinto model may reflect the complexity of the relationships between background factors and students' retention decision. Similar findings were reported by Soilemetzidis and Dale (2013), Ashby (2004), Kim (2014), and Gibbs et al. (2006). The existing academic literature suggests that background characteristics such as parents' encouragement, employment, and high school background might have a substantial impact on the students' ability and motivation to continue their studies.

6-Conclusion

Background factors have been commonly explored in the context of students' retention, with the present study including family background, individual attributes, and pre-college

schooling. These characteristics are compared across sophomore first-year and senior third-year students to identify key differences between the years. In addition, the relationship between background factors and commitment is studied.

Firstly, the findings suggest that background factors differ significantly across sophomore and senior students. More specifically, the educational level of parents and their encouragement is observed to be substantially different between sophomore first and senior third-year students. This indicates that superior emotional support might lead to stronger commitment, resulting in smaller probability of dropping out. Individual attributes are also found to differ across the years. In particular, employment status and tuition fee payments could be influencing the students' decision to continue their education. It could be important to understand the role of these factors more accurately, as this would be useful for identifying the limit of the effects of improved management practices.

Disparity in pre-college schooling factors is similarly found across sophomore and senior years. The results show that stronger intellectual development acquired before college could be associated with higher retention. Notably, the level of proficiency in English differs significantly between first-year and third-year students. This might indicate that superior initial education could contribute to the quicker and more effective academic integration. As a result, the students would be less likely to drop out, which suggests the indirect effect of pre-college schooling on retention.

Next, the analysis results suggest that background factors might have an impact on the students' goal and institutional commitment. Regarding the influence of the family background, only limited evidence is found. Parents' encouragement could have a key role in establishing the students' motivations. At the same time, parents' education does not appear to be an important factor, as no significant relationship between education level and commitment is found.

Stronger evidence is provided by the analysis of students' individual attributes. The choice of the major is revealed to influence how the reasons for continuing education are perceived. Student-specific attributes, such as gender, age, and employment status, are also observed to affect commitment. Examining the responses on pre-college schooling contribute little support for the relationship between background factors and commitment. In particular, the perceived reasons for continuing the studies do not appear to be affected

by the students' high school background. The results partially reinforce the observations made from the comparison of background factors across sophomore and senior students.

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