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**STUDENTS' CHOICE OF A MASTER IN MANAGEMENT
IN PORTUGAL: a means-end chain approach**

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In the increasingly competitive market of higher education introduced by the Bologna Declaration, understanding the decision-making of master in management students is at the center of institutional management and marketing efforts on its mission to attract prospective students in a less costly, more efficient manner. The means-end chain approach, applied to the choice of a Portuguese institution in which to pursue a master in management, points to the position in rankings and to the non-specificity of the program as the most important attributes. Additionally, results show that students with distinct demographic, household, or background characteristics choose in significantly different manners.

Keywords: master in management, higher education in Portugal, students' decision-making, means-end approach.

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1. INTRODUCTION

1.1 The new landscape of higher education

In the past decade, the setting of higher education institutions (HEIs) has transformed drastically, particularly in Europe. The changes introduced by the Bologna Declaration – an increased level of competition, both in domestic and foreign markets, and a shooting demand for pre-experience master programs by an increasingly mobile and diverse student body – have required HEIs to become more market-oriented. While continually providing value to students, HEIs face today an unprecedented challenge in building their student body (Judge and Peters, 2008), and they must find its way in competing for students in an increasingly competitive environment.

The Bologna Declaration, signed in 1999 by twenty-nine European countries, aimed at creating a two-cycle system of studies, of easily recognizable and comparable qualifications worldwide, and developing a European-wide credit system to promote student mobility, for the purpose of further study and exchange programs (Bologna Declaration, 1999). With the implementation of the Bologna in motion for over a decade, master programs have thrived globally. As an illustration, while in 2007, the inaugural year of MastersPortal.com, roughly two thousand master in management (MIM) programs were listed in the website, today there are more than twenty-three thousand. This same trend is verified in Portugal: while a decade ago a total of eight MIM programs were in operation, most part-time and in evening classes; today, twenty-nine Portuguese HEIs compete for full-time students (Appendix 1), not only among themselves but also with the several thousands in Europe and elsewhere.

With the split of the traditional long-cycle degree in two stages (bachelor and master qualifications), students' decision-making has become more complex. The typical long-

degree required anywhere between four and six years of study, at a single HEI and in a particular field. Once graduated, students would have to decide whether to continue studying or seek employment, and most would transition to the job market. Nowadays, students graduate with a universally recognized bachelor degree within three years of entering tertiary education and, facing the same decision, most choose to continue studying with limited (a couple of years) or none work experience – in the case of Nova SBE, roughly 80% of bachelor students move on to a master program. While choosing to pursue a master degree, students must decide whether to continue in the same field of studies or move into a different one. Furthermore, they can opt for a different HEI than that of their bachelor, in their own country, elsewhere in Europe, or outside Europe.

1.2 The challenge: to get and to grow

In the face of the increasingly competitive market of master programs, HEIs, especially marketing and admissions departments, are posed many challenges in building their student body. On one hand, closely related to the general marketing principle that 'it costs more to attract a new customer (a new student) than to keep an existing one', HEIs are required to effectively grow their current bachelor students into master students, encouraging them to stay on. While giving an emphasis on upholding students' satisfaction, which involves faculty and academic departments rather than marketing and admission departments alone, this suggests that the mission of attracting the 'right' master students begins at the high-school leavers level – it is likely that students intending to pursue a master will behave in an emotional, less rational driven manner towards the HEI of their bachelor when evaluating their alternatives.

On the other hand, HEIs are required to attract new, bachelor degree-holder students into their master programs. The first goal is to be included in students' consideration set

(HEIs to which they apply), and then to be their HEI of choice, once the 'right' students are sorted out and invited into the programs. This implies, primarily, a thorough understanding of their decision-making process: Which attributes do they weigh in the consideration and/or decision of a HEI? Why are those attributes relevant to the students? What consequences do they anticipate from those attributes? What are their broad personal and professional goals? Once answers to these questions are established, then the challenge becomes to successfully market the program to the 'right' students, whatever 'right' is considered to be by the HEI management, depending on its marketing and branding strategies. Nonetheless, the need for student (the consumer of a master program) research is not only a question of how to successfully communicate the attributes of a program in the immediate-term, from a cost-effective perspective. It also expects to support long-term decision-making efforts such as program design, institutional organization, and evaluation of students' satisfaction. Whether prospective students' needs and wants imply sponsoring a new campus, hiring international professors, enlarging course offer or providing them financial aid, at the same time as governments steadily decrease the funding of HEIs universally, institutions must carefully consider where to invest its scarce resources. Consequently, research is a responsibility of (and should be of interest to) the HEI as a whole.

1.3 Purpose statement

The purpose of the present work is to understand the factors influencing students' choice of a Portuguese HEI in which to pursue a MIM program. Focus was given on MIM, rather than overall master programs – while it is expected that the decision-making of students differ according to the field of studies being considered, Management is one that figures more relevant for Nova SBE.

2. LITERATURE REVIEW

2.1 Models of students' decision-making and choice

Research is dominated by factors influencing HEI choice for undergraduate students, particularly in the USA, Australia and emerging countries, with no emphasis in specific fields of study. Hoyt and Brown (2003), while identifying college choice factors in the state of Utah, USA, supported the trend when concluding that there were no substantial differences in college choice factors when dividing students by major aspirations. While those findings may hold true in the US, where undergraduate students typically choose a specific field of studies only at the end of the second year of the four-year bachelor program, they cannot be extended to Europe in the post-Bologna. Given that students choose a specific field and a HEI simultaneously, at the time of application, the choice of one and of the other should not be dissociated. Portela et al. (2007), investigating Portuguese high-school leavers' choice sets, have concluded that consistency rates in the field of "Economics, Management, and Accounting" are comparably high, exceeded only by those of "Health" and "Technology". These results suggest that bachelor in management students choose, *a priori*, the specific field of studies, then to choose a HEI in which to pursue their bachelor program – in their six choices' set, there is consistency in the field, varying the preferred HEIs in which to pursue their studies. In the present work, the same principle is hypothesized to hold true when applied to MIM students, motivating research on factors influencing the choice of a HEI in which to pursue an *a priori* chosen program in management.

One of the first studies on graduate business students' choice, conducted by Webb in 1993, identified fifteen major influencing factors on college selection, including "academic reputation", "accreditation", "evening classes", "part-time programs", and

"library size". In 1995, Webb and Allen, while investigating perceived benefits of an advanced business degree, recognized "research and analytical skills", "competitive advantage", "monetary reward", "career advancement", and "job enrichment" as the most important. In the same year, based on a 1986 graduate students' survey, Kallio found that students of greater academic achievement at their undergraduate HEI and of higher socio-economic background were most likely to pursue graduate students, and that men were also more likely to pursue graduate studies than women. On one hand, given the transition from an elite higher education (designed for only a few), to a mass higher education, to a universal higher education (Beerkens-Soo and Vossensteyn, 2009), some of the results seem clearly out-of-date. On the other hand, the few studies conducted on the choice process at the graduate level agglomerate traditional and non-traditional further education programs (e.g. PhD, executive education), hardening the task of uncovering distinctive results for pre-experience master programs.

Although factors influencing bachelor program choice may widely differ from those influencing master program choice, frameworks and research methodologies that can be applied throughout are also object of review. Brennan (2001), while examining students' choice of bachelor degree courses in the state of Victoria, Australia, asked Engineering, Business and Art degree-students to rate the level of importance of particular criteria in a scale from 1 to 5. Through analysis of means and standard deviations, the most important were found to be "relevance to career", "location", "job placement", and "image or reputation". Similarly, Anderson (2010) suggested that "getting a better job", "making more money", and "obtaining training for a specific career" were the most important reasons that business major students give to attend a private college in the Midwest, US, rated in a scale from 1 to 3. Walsh et al. (2013),

employed a conjoint analysis while examining undergraduate choice in England, asking respondents to choose one of three competing packages (varying the intensity levels of particular program attributes) and concluded that "course reputation" and "university reputation" were 'by far' the most important factors. Although no gender differences were found, results showed that students whose parents did not attended university gain significantly less utility from a university with high reputation that those whose parents hold a university degree. Also through conjoint analysis, Kusumawati (2011) concluded that Indonesian students consider "advice from family, friends, and/or teachers", "job prospects", and "reputation" as the most important factors for selecting a public HEI.

All research methodologies examined assume that students' decision-making is both cognitive and compensatory; in other words, that students combine information about attributes of HEIs in their consideration set, evaluate how good HEIs perform with respect to those attributes, and weight them in terms of how important the attributes are to their goals, to reach a decision in a rational, systematic manner. This implies that a negative evaluation of some attributes can be compensated for by the positive evaluation of others (Hoyer and MacInnis, 2010), and that decisions involve cognitively and emotionally taxing trade-offs. In theory, the HEI that has the best overall score (evaluation of attribute times the importance, or weight, of the attribute, summed across all of the HEI attributes) is the one chosen by the student. Though research has focused primarily on determining the relative importance of specific factors in the choice of a HEI, no clear distinctions have been made with concern to the levels of abstraction of those factors under examination – attributes of a HEI, students' sources of information while evaluating alternatives, and students' anticipated consequences of choice, have consistently been evaluated together at the same primarily level of decision-making.

2.2 The case for means-end chain (MEC) approach

While useful to some marketing efforts, this traditional multi-attribute approach often fails to determine the triggers that actually drive consumers' decisions (Rock Research, 2013). A simple illustration is the reputation of a HEI: though research has concluded that it is critical in students' decision, whether they find it individually relevant due to professional reasons (e.g. valued by employers) or to personal reasons (e.g. increased self-esteem, social recognition) is left to the interpretation of HEI management. These triggers, or underlying motivations, can be extremely powerful in communication strategies that move consumers to action, especially if students are not able (do not have sufficient information and/or knowledge) to differentiate HEIs based on lower-level characteristics (e.g. reputation, price, international focus), or are not willing to perform taxing trade-offs between those. By taking competition from the 'attribute versus attribute' level and shaping a connection between personal values and product attributes (Reynolds et al., 2001), the creative task then becomes one of developing the appropriate visual and verbal cues that will cause the right connections to be made by the target students, fighting off competitive programs.

The means-end chain (MEC), developed by Jonathan Gutman in the 1980s, is an effective framework in assessing personal relevance of product attributes, through the use of laddering interviews. It holds as its basic premises that attributes, taken alone, have no consequences, and thus have no personal relevance (Olson and Reynolds, 2001), and that consumers decide which product to buy based on the anticipated consequences, both positive and negative, associated with each considered alternative, maximizing the positive outcomes and minimizing the negative ones. Precisely, the MEC assumes that consumers have three levels of product-related knowledge: product

attributes (A), the consequences or outcomes of using a product (C), and the broad goals or values that may be satisfied by the use of that product (V) (Olson and Reynolds, 2001), and that these three levels, combined, form a hierarchical chain of associations:

Attributes (A)   →   Consequences (C)   →   Values (V)

In order to, first, identify the key choice criteria that consumers claim to use in making a purchase choice from among a considered set of alternatives and, second, learn why those criteria are important, or relevant to the consumer, laddering interviews consist of a series of directed probes, 'why' questions. An example of laddering conducted to elicit the links of association among the three levels is presented in Appendix 2. Notwithstanding, the MEC is a qualitative method, usually employed with small sample sizes, and researchers have questioned the reliability (and, most importantly, the validity) of laddering interviews in producing useful data then to be generalized to a larger population. A few attempts have been made to validate results from a laddering study by quantitative data collection techniques (Grunert et al., 2001). Vanden Abeele (1990) presented whole chains in verbalized form and asked respondents to rate them according to the fit to the product in question (dairy). In the same year, Valette-Florence used a card-sorting task, asking respondents to sort the most important attribute of the product in question (perfume) from a pile of attribute cards, then to sort the most important consequence following from that attribute from a pile of consequence cards, and then to select the value following from that consequence from a pile of value cards. Still, the association pattern technique (APT) developed by ter Hofstede et al. is the most quantitative technique employed in uncovering MECs, and considered the most appropriate for the present work. The APT involves presenting respondents with A-C and C-V matrices, and asking them to mark the cells where they think there is an

association. The assumption, consistent with MEC theory, is that the C-V links concern the self of the respondent and are independent of the product involved, and of the A-C links (Walker and Olson, 1991). When testing the convergence of the APT and laddering interview results, ter Hofstede et al. (1998) found that the APT yields higher frequencies of occurrence, which is expected, given that it involves recognition rather than recall. Although respondents in a recognition task may indicate more links than those that are truly relevant for them, several limitations of a recall task (such as overlooking important concepts or being responsive to interviewer bias) are overcome. As a conclusion, it is unreasonable to expect any one approach to be the ultimate solution to understanding why consumers buy a particular product, and specifically, why students choose a particular HEI to pursue a MIM program. Nonetheless, the methodologies reviewed can complement one another and, combined, are considered to provide a thorough understanding of the research problem.

3. METHODOLOGY

Using the APT to uncover MECs implied a two-stage study: in the qualitative stage, personal laddering interviews were carried out to elicit attributes (A), consequences (C), and values (V), then to develop the association pattern A-C and C-V matrices; in the quantitative stage, the A-C and C-V matrices were presented to a sample of the target population through Internet-based questionnaires to validate MECs for several segments of the population. Following previous research in students' choice and decision-making, the relative importance of attributes in the choice of a HEI in which to pursue a MIM program was also investigated in this second stage. The most important methodological considerations in the design and execution of the two stages are examined in the following sections.

3.1 Qualitative stage

Twelve personal laddering interviews were conducted with current MIM students of Nova SBE and Católica Lisbon SBE. The technique prompted respondents to think critically about the connections between the attributes of the HEIs in which students were enrolled and the motives (the 'whys') behind their preference, thereby revealing the attribute-consequence-value (A-C-V) chains.

A non-threatening interviewing environment was encouraged through a warm-up speech, positioning the respondent as the expert in MIM programs and reinforcing the notion that there were no right, wrong, 'somewhat obvious or possibly even stupid' answers (Reynolds and Gutman, 2001). Respondents were initially asked the most important attributes or characteristics of the programs they have chosen to pursue at the given HEI, and then continually asked a series of 'why' questions to expose increasingly higher order, more abstract reasons for relevance of the attributes mentioned. The complete interview guide and probes, as well as the techniques used to overcome respondents' blocking, can be found in Appendix 3.1.

All interviews were audio-recorded and key elements of responses were classified into the three levels of product-related knowledge. Summary tables of attributes (A), consequences (C), and values (V) elicited by laddering are presented in Appendix 3.2.

3.2 Quantitative stage

Based upon the use of structured questionnaires distributed to a sample of the target population, there exist many survey techniques, from telephone to personal to electronic interviews (Malhotra and Birks, 2007). Given the extremely high adoption rate of the Internet by the target population, and clear definition of sampling frames, an Internet-based questionnaire was considered the most advantageous technique to be employed:

faster than distributing paper-based questionnaires and coding its results, with lower costs associated and allowing for distance access to respondents. The disadvantage, in comparison to other survey techniques, is that response rates are expected to be low.

3.2.1 Questionnaire design process

The first, and perhaps the most important step in the process of questionnaire design is the specification of the information needed, which is, ultimately, the links identified by respondents within the A-C and C-V matrices. Association pattern matrices were presented in that sequential order, in non-forced response manner, and examples of possible A-C and C-V linkages were offered to respondents in an attempt to increase ability and willingness to answer. In addition to the APT methodology, to provide relevance to the links identified, respondents were also asked to evaluate the importance of attributes in their choice of a HEI in which to pursue a MIM (prior to the A-C matrix) and of values (prior to the C-V matrix), using balanced rating scales of 1 to 10, of forced-response and of an even number of categories (thereby excluding a neutral or impartial position). Lastly, an extensive set of characterization questions were introduced, from nationality to academic performance in the bachelor program to extracurricular activities in which students were enrolled prior to 18 years old, among others. The complete Internet-based questionnaire is presented in Appendix 3.3.

3.2.2 Sampling design process

The target population was defined as MIM students in the first semester of their programs, enrolled in a Portuguese HEI. Students in advanced semesters, and graduate students, were excluded – as the choice is increasingly distant in time, the ability of students to accurately remember the most relevant attributes in their choice, or the anticipated consequences of those attributes at that time, decreases, and may be biased

toward experienced outcomes. Prospective students, although the object of the present study, were also excluded from the target population. On one hand, sampling frames would be difficult to define – all bachelor degree students, in any field of studies and of any nationality, are eligible to pursue a MIM program in Portugal. On the other hand, even if only those in the final year of the bachelor were included, they would still be distant from the moment of choice (as of November), and their ability to answer, their product-related knowledge in all A, C, and V levels, would vary widely.

The sampling frame was defined as members of Facebook groups of MIM programs, fall intake of 2014, of Nova SBE, Católica Lisbon SBE, ISCTE Business School and FEP Economics & Management. Other Portuguese HEIs were excluded for several reasons: they do not have a marked international focus, they are neither comparable in terms of accreditations nor present in business schools rankings (such as Eduniversal) and, more significantly, were not mentioned by students interviewed in the qualitative stage as part of their consideration set of HEIs in which to pursue a MIM. All 823 members of the Facebook groups were allowed and invited to participate in the survey, and though many sources of selection bias are present, such as respondent self-selection, results obtained are expected to be statistically projectable to the target population. Completion rates, as the percentage of eligible respondents who complete the survey, are expected to be low, given that the identification of links between A-C and C-V can be a demanding and time-consuming task. On the contrary, incidence rates, as the percentage of members eligible to participate in the survey, are expected to be not so low – while Facebook groups may include students from other programs, students from other HEIs and even professors or staff, which all add to sampling frame errors, respondents were screened through an initial question to validate the sample.

4. DISCUSSION OF RESULTS

From the 823 students invited to participate in the survey, only 95 initiated the Internet-based questionnaire and, of those, 56 successfully completed it. As expected, both response rates and completion rates were low (of 12% and 60%, respectively). Four respondents were further excluded from the analysis, as they would not qualify as current MIM students, resulting in a 93% incidence rate. Following the general demographics of MIM students enrolled in Portuguese HEIs, most respondents are Portuguese and in the age group of 18 to 22, with roughly no difference in gender. While the great majority is pursuing their programs at Nova SBE, about half of the respondents completed their bachelor at the same school, and a third of them hold a degree in a field of studies other than Economics or Management. The full descriptive statistics are presented in Appendix 4.1.

4.1 General results

The two most important attributes in the choice of a HEI in which to pursue a MIM program were identified by students to be a "Generic program" and "Position in rankings", then followed by "International environment" and "School's brand image" (see Appendix 4.2 for the measures of location and dispersion of the scores of all attributes and values in the scale of 1 to 10).
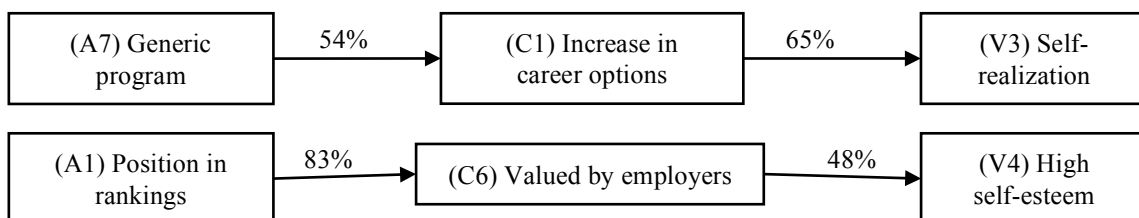

Figure I. Dominant A-C-V chain starting from "Generic program" and "Position in rankings".

The most anticipated consequence of "Generic program" is an "Increase in career options", which is perceived to result in "Financial wealth" by the majority of students.

Similarly, being "Valued by employers" is the most anticipated consequence of "Position in rankings", leading to a "high self-esteem" of MIM students.

Nonetheless, by seeking the greatest linkages between consequences and values, the dominant A-C-V chains found do not involve the neither "Generic program" nor "Position in rankings" at the attribute level (see Appendix 4.3 for the linkages identified at the A-C and C-V levels, as well as the graphical depiction of A-C-V chains with a cut-off of 60% at those levels).
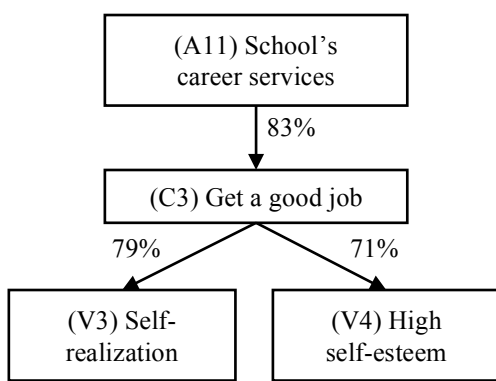
Figure II. First most dominant A-C-V chain at the cut-off of 60%.

The one dominant chain is the perceived connection between "Get a good job" with both "Self-realization" and "High self-esteem". Interestingly, MIM students anticipate that consequence, above all, from "School's career services", which they state to be the least important attribute in their choice.

The second most dominant chain is the improved chance of an international career instigating "Financial wealth" of students, anticipated predominantly by an "International environment" of the HEI of choice to pursue a MIM program, considering both the student and the faculty bodies.
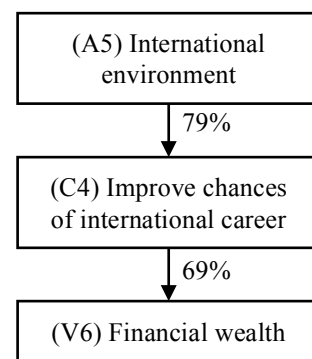
Figure III. Second most dominant A-C-V chain at the cut-off of 60%.

It should be noted that "Practice oriented-teaching" is the attribute that scores the greatest number of linkages to consequences, as students anticipate that it is valued by employers, it results in specialization and development of technical skills, and it allows them to improve their selves personally.

4.2 Groups results

Although general results provide accurate perceptions of students in a broad sense, it is worth investigating if relevant attributes of HEIs in the choice of a MIM program differ when unraveling students based on demographic variables, household characteristics, their experiences before the age of 18 or in their bachelor studies. The detailed definition of groups, the comparisons of attributes in terms of importance, as well as the dominant A-C-V chains starting from the most important attributes for each of the different groups, are presented in Appendix 4.4.

4.2.1 Demographic variables

Many distinctions can be made while considering demographic variables such as age, gender, or nationality. Both students with less than 22 years of age and those with 23 or more, both male and female, and both Portuguese and non-Portuguese still consider "School's career services" as the least important attribute in their choice. However, the same consistency is not found in concern to the most important attribute. Older students consider "Diversity of electives and majors" the most important attribute of a HEI, as a means to secure future job placement, and value significantly less the "International environment". It can be said that Portuguese and non-Portuguese students respond (or choose a HEI) in different manners: foreigners give significantly less importance to attributes such as "Practice-oriented teaching" and "Focus on group work" (by roughly three points, in a scale of 1 to 10); in contrast to Portuguese students, who point "Position in rankings" as the most relevant attribute in the choice, non-Portuguese rank them fifth in terms of importance, considering it significantly less, and point "School's atmosphere" as more important than "Position in rankings", as a means to "Self-realization" and "High self-esteem".

4.2.2. Household characteristics

Students whose household members hold a bachelor qualification or superior (at least one) give significantly more importance to "Focus on group work" (by close to two points), and weight them heavier than "School's location", as an example, opposed to students whose household members do not hold higher education qualifications. Likewise, students whose a household member holds a middle or top management position choose the HEI based on "International environment" more often than whose household members are employees of the tertiary sector or specialized technicians (the detailed professional occupation's list can be found in the Internet-based questionnaire). Surprisingly, "International environment" is the top-relevance attribute, above "Position in rankings" and "Generic program". Its anticipated consequences are "Improve chances of international career" and "Establish professional network", leading subsequently to a "Sense of belonging" and "Financial wealth", respectively. By a mean difference of close to two points (out of ten), the "Need of job security" is also worth mention – while students whose household member does not hold a middle or top management position give significantly less importance to "School's career services", "Need of job security" is highly relevant for them, well above "Financial wealth".

4.2.3. Secondary education

The strongest difference of attributes' importance, comparing students who completed secondary education in a public school with those who completed it in a private school, is "International environment" (as for students whose a household member holds a middle or top management position; in fact, it is also mentioned as the most important attribute in their choice). Moreover, those who attended a private school give

significantly more importance to "School's atmosphere" and "Students' clubs", well above "Practice-oriented teaching" or "Schools' career services".

Students who attended at least two summer camps (with no distinction made to leisure or academic activities), and who were enrolled in an organized sport and in performing (e.g. music, dance) classes before the age of 18 weight "Focus on group work" extremely heavier than those who were not, as well as "Diversity of electives and majors", while considering significantly less the "School's brand image", compared to students who did not attended neither summer camps nor performing classes. In fact, the former consider "School's brand image" as the most important attribute in the choice, anticipating that employers will value the HEI of the MIM, contributing to a "High self-esteem". Surprisingly, "Focus on group work" is the third-most important for students who attended summer camps, were enrolled in organized sports and in performing classes, only beaten by "Diversity of electives and majors" and "Generic program". Those students anticipate the opportunity to "Develop management knowledge" as the main consequence of the attribute, eventually leading to "Financial wealth".

4.2.4. Bachelor program

Students who hold a degree in Economics or Management, compared with those who completed their bachelor in other fields of study, surprisingly give less importance to the "Diversity of electives and majors", although pursuing a master program in the same field. The same applies for students who hold a degree in Economics or Management from other HEIs than Nova SBE. However, those who hold a degree in Economics or Management, with no distinction made to bachelor's HEI, are more concerned with "Need of job security", which is the less important value for students who hold degrees in other fields of studies. Additionally, students who hold a degree from other HEI than

Nova SBE give drastically less relevance to "Schools' career services" (by more than 3 points). In a scale of 1 to 10, they rate the importance of that attribute in their choice a rough 1,50. Conversely, they weight "International environment" significantly heavier than those who hold an Economics or Management degree from other HEIs. It is also worth mentioning that, while bachelor-degree holders from Nova SBE point "Position in rankings" as the most important attribute, for students who completed the bachelor at other HEIs, "Position in rankings" appears as the fifth, considered less important than "Schools' atmosphere".

One interesting conclusion is that there are no significant differences in the importance of attributes between "good students" (who have obtained a final GPA of 16 or above in their bachelor) and "not so good students" (who have obtained a final GPA of 13 or below). Nonetheless, although the top personal and professional goal is "High quality of life" for both groups, "not so good students" are significantly more concerned with "Need of job security", while "good students" are concerned with "Self-realization".

4.2.5. Master in management program

Students pursuing the regular or those pursuing an international track rank "School's career services" as the least important attribute weighing in the decision, consistent with general results. Notwithstanding, it should be pointed that, in comparison, the later consider them significantly less relevant. Similarly, they do not consider "Focus on group work" as a deciding attribute, while students pursuing the regular track position it above "Practice-oriented teaching" or "Professors' professional experience". Students pursuing either the regular or the international tracks consider "Position in rankings" as the most important attribute weighing in the choice of a HEI – while the first anticipate that employers will value the HEI, the former consider it a means to "Self-realization".

5. CONCLUDING REMARKS AND IMPLICATIONS

The results of the study provide HEI management a thorough understanding of students' decision-making process: the most important attributes to students while considering to apply or to decide for a particular HEI in which to pursue a master in management, the consequences they anticipate from those attributes (its personal relevance), the values to which those consequences are perceived to lead to, and the most important personal and professional goals of MIM students. Aside from deciding factors of students in broad terms, there were found significantly different considerations in the choice of a HEI when comparing groups of students according to characteristics such as demographics, household characteristics and academic performance.

The elicitation of attributes, consequences, values, and the links between them can be instrumental in designing targeted, cost-effective communications. Assuming a cognitive and compensatory decision-making, communication strategies can address one of two issues (or both): changing the perceptions that students have on a given HEI's attribute, in order for them to score them higher when compared to other HEIs; altering the weight given by students of an attribute, especially if it is a competitive advantage of the HEI. An example of the first would be to take competition from the attribute versus attribute level to higher levels of abstraction. While most HEI offer a "Generic program", the attribute itself has no personal relevance to students if connections to the anticipated consequences, such as "increase in career options", are not evidently conveyed. An example of the second would be to message that "International environment" is a critical attribute in the choice of a HEI, leading to consequences and values such as "Improved chances of international career" and "Financial wealth". Assuming that it is a key strength of the HEI, students should be

encouraged to trade-off "International environment" for another attribute that it may not be a key strength (e.g. "Position in rankings") in a less taxing manner.

While different relevant attributes have been identified for different groups, communications become cost-efficient if targeted according to students' perceptions. Results support that students who completed their bachelor at other HEIs than Nova SBE do not consider "Position in rankings" as a personally relevant attribute of the HEI, while those who completed their Economics or Management bachelor at Nova SBE consider it the most relevant. This suggests that communication strategies based on the superior "Position in rankings" of a HEI would not be as effective among current Economics or Management bachelor students at other HEIs when compared to those at Nova SBE, and resources could be deployed in a more directed, effective style. To conclude, it should also be noted that the communication of links of association between attributes, consequences and values does not need to be explicit – appropriate visual and verbal cues will cause the right connections to be made by the students.

Although the means-end chain approach has become popular for its use in advertising and communication strategies, it is clear that it can be valuable in other management efforts. If "Diversity of electives and majors", as an example, it is an irrelevant attribute in the choice, assuming that it represents a great investment for the HEI (from faculty body to class materials), as well as a trade-off among efforts competing in for those same resources, management may re-think program design and course offer to adjust it for students needs and wants. The same principle applies to other investment efforts such as international faculty, facilities, financial aid, or teaching style.

REFERENCES

Anderson, Joni K. 2010. "An examination of college factors used by business students who chose to attend a small Midwestern private college." PhD diss. Iowa State University.

Beerkens-Soo, Maarja, and Hans Vossensteyn. 2009. "Higher education issues and trends from an international perspective." Report prepared for the Veerman Committee, Center for Higher Education Policy Studies, The Netherlands.

Bologna Declaration. 1999. "The European higher education area." *Joint Declaration of the European Ministers of Education,* 19.

Brennan, Linda. 2001. "How prospective students choose universities: a buyer behaviour perspective." PhD diss. University of Melbourne.

Dam, Stacy. 2014. "What matters most? Factors influencing choice of a student affairs master's program" MA diss. University of Nebraska.

Grunert, Klaus, Suzanne Beckmann, and Elin Sorensen. 2001. "Means-end chains and laddering: an inventory of problems and an agenda for research" in *Understanding consumer decision making: the means-end approach to marketing and advertising strategy*, ed. Thomas Reynolds and Jerry Olson. New Jersey: Lawrence Erlbaum Associates, Inc.

Hoyer, Wayne D., and Deborah J. MacInnis. 2010. "Consumer behavior." Cengage Learning.

Hoyt, Jeff E., and Andrea B. Brown. 2003. "Identifying college choice factors to successfully market your institution". *College and University*, 78(4): 3-10.

Judge, Paul, and Kai Peters. 2008. "The future of graduate management education in the context of the Bologna Accord." Graduate Management Admission Council.

Kallio, Ruth E. 1995. "Factors influencing the college choice decisions of graduate students." *Research in Higher Education*, 36(1): 109-124.

Kusumawati, Andriani. 2011. "Understanding student choice criteria for selecting an Indonesian public university: a conjoint analysis approach." Paper presented at the SBS HDR Student Conference, Sydney.

Malhotra, Maresh K., and David F. Birks. 2007. "Marketing research: an applied orientation." Prentice Hall Inc.

Olson, Jerry, and Thomas Reynolds. 2001. "The means-end approach to understanding consumer decision making" in *Understanding consumer decision making: the means-end approach to marketing and advertising strategy*, ed. Thomas Reynolds and Jerry Olson. New Jersey: Lawrence Erlbaum Associates, Inc.

Portela, Miguel, Nelson Areal, Carla Sá, Fernando Alexandre, João Cerejeira, Ana Carvalho, and Artur Rodrigues. 2007. "Regulation and marketisation in the Portuguese higher education system." *Núcleo de Investigação em Políticas Económicas* Paper 11.

Reynolds, Thomas, and Jonathan Gutman. 2001. "Laddering theory, method, analysis, and interpretation" in *Understanding consumer decision making: the means-end approach to marketing and advertising strategy*, ed. Thomas Reynolds and Jerry Olson. New Jersey: Lawrence Erlbaum Associates, Inc.

Rock Research. 2013. Rockbridge. http://rockresearch.com/understanding-consumer-decision-making-with-means-end-research/ (accessed October 24, 2014).

ter Hofstede, Frenkel, Anke Audenaert, Jan-Benedict E. M. Steenkamp, and Michel Wedel. 1998. "An investigation into the association pattern technique as a quantitative approach to measuring means-end chains." *International Journal of Research in Marketing*, 15: 37-50.

Walker, Beth, and Jerry Olson. 1991. "Means-end chains: connecting products with self." *Journal of Business Research*, 22(2): 111-118.

Walsh, Caroline, Cornelius Barry, Andrew Dunnett, and Jan Moorhouse. 2013. "Choosing a university: the results of a longitudinal study using conjoint analysis." Paper presented at the Academy of Marketing Conference, United Kingdom.

Webb, Marion Stanton, and Lida Cherie Allen. 1995. "Benefits of a graduate business degree: students' perspectives and universities' challenges." *Journal of Marketing for Higher Education*, 6(2): 57-71.

Webb, Marion Stanton. 1993. "Variables influencing graduate business students' college selections." *College and University*, 68(1): 38-46.

Whitlark, David, Thomas Reynolds, and Richard Wirthlin. 2001. "Effectively translating in-depth consumer understanding into communications strategy and advertising practice" in *Understanding consumer decision making: the means-end approach to marketing and advertising strategy*, ed. Thomas Reynolds and Jerry Olson. New Jersey: Lawrence Erlbaum Associates, Inc.