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Research Paper

The influence of choice factors on student decision-making of Vocational Education

Tiago Couto*

Maria Antónia Rodrigues **

ABSTRACT

This study aims to analyze the influence of choice factors on students' decision-making when selecting Vocational Education (VE), recognizing that Vocational Education Institutions (VEI) operate in a highly competitive environment where attracting new students is essential for success. Using a quantitative approach, data were collected through a questionnaire, resulting in 848 valid responses from students enrolled in VE courses in Portugal, and 24 choice factors were analyzed. The findings reveal that these factors do influence students' decisions, with "Job perspectives after completing the course," "Personal interest," and "Internship opportunities during the course" emerging as the most significant, while "Level of difficulty of the course" and "School ranking" were considered the least important. The study faced some limitations, including scarce literature on vocational education and professional courses, limited research on the decision-making process of VE students, difficulties faced by VEI in data collection, and the generally low motivation of Generation Z students to complete questionnaires. Despite these challenges, the research offers valuable contributions both to theory and practice: theoretically, it developed a model tailored to the specific context of VEI; from a managerial perspective, it provides insights into the most influential factors affecting students' decisions, offering essential knowledge for institutions and educational authorities aiming to attract new students within the competitive landscape of vocational education.

Keywords: Choice factors, Vocational Education, Portugal, Generation Z

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* ISCAP, Polytechnic of Porto, Portugal. E-mail: tiago.andre.silva2@gmail.com

** CEOS.PP/ ISCAP, Polytechnic of Porto, Portugal. E-mail: mar@iscap.ipp.pt

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1. INTRODUCTION

Nowadays, in general, Vocational Education Institutions (VEI) are developed in a highly competitive and complex environment (Lubbe & Petzer, 2013; Kusumawati, 2019; Meštrović et al., 2019; Pinna et al., 2018 e Simões & Soares, 2010). Among the factors that have contributed to the competitiveness and complexity of the sector, we highlight the constant decrease in the birth rate, the increase of the number of Education Institutions and the growth in the variety of courses and openings offered by each school. All these factors make attracting students a major challenge, forcing the VEI to analyse and learn about the students' entire decision-making process.

Attracting students is a key goal of vocational marketing (Kotler & Fox, 1994), which requires a different kind of marketing and a high level of knowledge of the sector and the student. Strategies and techniques cannot be applied in the same way as in a company (Núñez, 2017). This condition inevitably led to studies being carried out to gain a better understanding of the students' decision-making process, in terms of the factors involved in the selection and choice of a particular VEI (Hemsley-Brown & Oplatka, 2016, quoted by Retamosa et al., 2022). Over the years, there have been a number of studies (Alonso, 2019; Barboza et al., 2013; Basha, 2019; Cubillo et al., 2006; Gondane & Pawar, 2021; Ho & Law, 2020; Le et al., 2020; Lubbe & Petzer, 2013; Maringe, 2006; Meštrović et al., 2019; Núñez, 2017 e Simões & Soares, 2010) that allowed the academy and the Vocational Institutions to acquire more knowledge and better define their marketing strategies and actions in order to achieve one of the primary objectives of any school, which is attracting students. Nevertheless, the contribution of these studies to learning about the student's decision-making process is of limited relevance to the context and to the student in the process of deciding to apply for higher education. There are no known studies focusing on students' decision-making process regarding Vocational Education (VE). It is important to study this decision-making process given that decision-making in Vocational Education differs from that in Secondary Education, both because of the type of teaching and, above all, because of the phase of academic life in which students find themselves.

Vocational Education in Portugal represents 40% of the students attending Secondary Education. Even though Portugal, under the Portugal 2020 program, aims to attract 50% of the students

enrolled in Secondary Education to Vocational Education (CEDEFOP, 2021), the data reveals that this goal is still far away from what it was expected, given that Portugal ranks 19th in the European ranking of countries within the European Union (EU 27), with only around 45% of the total number of students currently in Secondary Education enrolled in Vocational Education (Barbosa, 2023). According to Le et al. (2020) e Meštrović et al. (2019), to effectively attract students, it is essential to know the most important choice factors to decision-making.

Given the relevance of VE and the absence or lack of specific studies in this context, the main objective of this study is to understand part of the student's decision-making process for VE, in terms of choice factors. In opposition to known studies, this study tends to innovate by focusing on VE.

Understanding in detail the level of influence of each choice factor on student decision-making will help the institution's marketing managers to define objectives and develop the marketing strategy (Maringe, 2006), but also to create content for each communication channel as a source of information, thereby making communication more personalised and customised (Le et al., 2020) as well as boosting the delivery of the correct content to the correct audience. Ultimately, this knowledge is crucial to attract students (Meštrović et al., 2019).

2. LITERATURE REVIEW AND HYPOTHESIS

According to Simões e Soares (2010) “the definition of choice factors covers all the influences that play a relevant role in the student's decision-making process” (p. 376). The student's decision-making process about which type of education, IE and/or course to choose is of the complex type (Simões & Soares, 2010). Throughout this process, the student is influenced by a wide range of choice factors (Maringe, 2006, Simões & Soares, 2010). According to Meštrović et al. (2019), this is a complex multi-criteria process, which means that it does not depend on just one factor of choice, but on various factors.

Several studies have looked at the choice factors that most influence the student's decision-making (Areces & Rodríguez-Muñiz, 2022; Basha, 2019; Cubillo et al., 2006; Ho & Law, 2020; Le et al., 2020; Lubbe & Petzer, 2013; Maringe, 2006; Meštrović et al., 2019; Mitić, 2020 and Simões & Soares, 2010). However, they focus mainly on the choice factors that influence the student's decision to attend higher education.

According to Al-Abdallah and Ababakr (2025), factors such as the quality and reputation of the educational institution, the variety of training programmes and social support have a direct impact on the selection of the educational institution.

According to Le et al. (2020) it is essential to study the influence of choice factors on decision-making for each student segment, as they vary from segment to segment. Therefore, of the 69 choice factors listed in the different studies, in order not to duplicate the criteria and to consider the specificities of Vocational Education, we will consider 24 choice factors in the analysis. Below we present table 1 with the selected factors:

Table 1. Summary of the choice factors selected for the investigation

Choice factor	Authors
Job perspectives after completing the course.	Maringe (2006); Meštrović <i>et al.</i> (2019); Le <i>et al.</i> (2020); Mitić (2020) and Al-Abdallah e Ababakr (2025).
Specialisation of the academic staff (teachers).	Maringe (2006); Meštrović <i>et al.</i> (2019) e Le <i>et al.</i> (2020).
Connection between the school and the companies.	Le <i>et al.</i> (2020).
School fees and scholarships – social and economic support.	Maringe (2006); Meštrović <i>et al.</i> (2019); Le <i>et al.</i> (2020) and Al-Abdallah e Ababakr (2025).
Admission requirements.	Meštrović <i>et al.</i> (2019) and Le <i>et al.</i> (2020).
Reputation of the course.	Maringe (2006); Simões e Soares, (2010); Le <i>et al.</i> (2020); Mitić (2020) and Al-Abdallah e Ababakr (2025).
Availability and variety of the courses offered.	Le <i>et al.</i> (2020); Mitić (2020) and Al-Abdallah e Ababakr (2025)
Internship opportunities during the course.	Le <i>et al.</i> (2020); Mitić (2020).
School’s public perception (reputation).	Simões e Soares, (2010); Meštrović <i>et al.</i> (2019); Le <i>et al.</i> (2020) and Mitić (2020).
Academic/social life at school.	Le <i>et al.</i> (2020); Mitić (2020).
Level of difficulty of the course.	Maringe (2006); Le <i>et al.</i> (2020) and Mitić (2020).
School ranking.	Le <i>et al.</i> (2020).
Recommendation from a colleague who attends the school.	Maringe (2006); Simões e Soares, (2010) and Meštrović <i>et al.</i> (2019).
Influence/recommendation from parents and other relatives.	Maringe (2006); Simões e Soares, (2010) and Meštrović <i>et al.</i> (2019).
Building and school facilities and equipment.	Meštrović <i>et al.</i> (2019), Le <i>et al.</i> (2020) and Al-Abdallah e Ababakr (2025).

Personal interest.	Maringe (2006) and Meštrović <i>et al.</i> (2019).
Geographical proximity (school – residence).	Maringe (2006); Simões e Soares, (2010); Meštrović <i>et al.</i> (2019) and Le <i>et al.</i> (2020).
Quality of the program (curricular plan).	Maringe (2006); Meštrović <i>et al.</i> (2019); Le <i>et al.</i> (2020) and Al-Abdallah e Ababakr (2025).
Influence/recommendation from former students.	Maringe (2006).
Influence/recommendation from teachers.	Maringe (2006) and Simões e Soares, (2010).
Advertising the school.	Maringe (2006).
Transports network (school – residence).	Maringe (2006).
Opportunities to participate in contests and national and international projects (ex.: ERASMUS).	Mitić (2020).
Extracurricular activities.	

To summarise, there are several choice factors that have been studied and with different relevance. Although these studies were conducted in the context of Secondary Education, it is likely that the different factors identified also reveal different influences on the decision-making process of VE students in Portugal, which is why the following research hypothesis is considered:

H1 – The different choice factors present different levels of influence in student’s decision-making towards Vocational Education in Portugal.

3. METHODOLOGY

This research follows the same methodological approach as the previously mentioned investigations with similar objectives but applied to the context of Higher Education (Meštrović *et al.* (2019), Pinna *et al.* (2018), Simões and Soares (2010), Gondane & Pawar, 2021; Ho & Law, 2020 and Le *et al.*, 2020). In this sense, it is of a quantitative nature, where data was collected through a questionnaire survey (Quivy & Campenhoudt, 2005). The population under investigation were students attending Vocational Education (10th, 11th and 12th grades) in Portugal. Similarly to the aforementioned studies, due to the impossibility of reaching the entire population, a quota sample was selected according to district criteria, with the aim of surveying approximately 800 students enrolled in Vocational Education nationwide, representing 0.6% of each district and islands, with the population under study being 115,484 students. This is a non-probabilistic sample. The questionnaire was pre-tested on a sample of 18 students, resulting in semantic adjustments to facilitate its interpretation by the students and the inclusion of new questions, as well as the

amendment of others. In this investigation, 1,155 answers were obtained, 848 of which were considered valid.

The option to work with primary data is due to the lack of secondary data that would allow conclusions to be drawn in response to the objectives of this research. The data collected was analysed using the software SPSS - Statistical Package for the Social Sciences.

4. RESULTS

In this research, 848 responses were considered valid. Most of the questionnaire participants were male (51.9%), aged 16 - 17 (55.4%), attending the 10th grade (54.6%), not benefiting from school social action (60.7%) and had never failed a year in school (63.4%). With respect to the qualifications of the participants' legal guardians, we found that 82.4% did not have any level of higher education and that only 9.7% had completed higher education - level 6 (Bachelor's degree). This sample includes participants from all districts of mainland Portugal (808), but also from the Azores (18) and Madeira (22). In mainland Portugal, the most representative districts are Lisbon (178) and Oporto (155). These are the districts with the most students enrolled in the VE - VC.

The participants were questioned about the influence of each choice factor on their decision to go into Vocational Education. According to the data collected, the most important choice factors for students in their decision-making were 'Internship opportunities during the course' and 'Personal interest', while the least important factors were 'Level of difficulty of the course' and 'School ranking'. The comparison of the difference in means between these 4 factors indicates that the differences are statistically significant, $F_{(3,2541)} = 543.720, p < .001$. The paired comparisons test indicates that only the difference between the two best-rated factors is not statistically significant ($p = .615$). Therefore, the different factors have different degrees of importance in students' decision-making for VE.

As a result, hypothesis 1, which stated that the different factors have different levels of influence on students' decision-making for VE in Portugal, is confirmed, and it can therefore be confirmed that all the factors presented influence students' decision-making, as we can see in table 2.

Table 2. The importance of choice factors on student decision-making of VE in Portugal

Choice factor	Mode	Median	Mean	Standard Deviation
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The influence of choice factors on student decision-making of Vocational Education

Job perspectives after completing the course	5	4.00	4.25	0.89
Quality of the program (curricular plan)	4	4.00	4.12	0.80
Building and school facilities and equipment	4	4.00	3.97	0.89
Geographical proximity (school – residence)	4	4.00	3.72	0.99
Transports network (school – residence)	4	4.00	4.00	0.98
Reputation of the course	4	4.00	3.95	0.95
Level of difficulty of the course	4	4.00	3.52	0.99
Specialisation of the academic staff (teachers)	5	4.00	4.05	0.95
School's public perception (reputation)	4	4.00	3.77	0.98
Availability and variety of the courses offered	4	4.00	4.02	0.92
Personal interest	5	5.00	4.36	0.79
Connection between the school and the companies	4	4.00	4.07	0.93
Admission requirements	4	4.00	3.76	0.96
School fees and scholarships – social and economic support	4	4.00	3.89	1.05
Internship opportunities during the course	5	5.00	4.37	0.84
Academic/social life at school	4	4.00	4.08	0.88
Advertising the school	4	4.00	3.75	0.99
Opportunities to participate in contests and national and international projects (ex.: ERASMUS)	5	4.00	4.00	1.03
School ranking	4	4.00	3.62	1.03
Extracurricular activities	4	4.00	3.82	1.02
Recommendation from a colleague who attends the school	4	4.00	3.79	1.05
Influence/recommendation from former students	4	4.00	3.77	1.06
Influence/recommendation from parents and other relatives	4	4.00	3.74	1.02

Influence/recommendation from teachers	4	4.00	3.70	1.10
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5. DISCUSSION

The research cited lists the following as the most influential factors in the decision-making process: post-course perspectives regarding employment and the expected salary; personal interest in the area; the quality and reputation of the Educational Institution and the course; links with companies and the specialisation and reputation of the teaching staff. The results of the investigation of Simões and Soares (2010) show that the most important factors in choosing an Educational Institution are the reputation of the university and course and geographical proximity. These authors also infer that the factors "family influence and the influence of current students at the institution being analysed by the student" are relevant to decision-making (Simões & Soares, 2010). Areces e Rodríguez-Muñiz (2022) highlight intrinsic factors such as personal interest in the course and natural aptitude for the area. Erdil et al. (2021) state that the job opportunities after completing the course and scholarships are the most important factors for a student's decision-making. We should emphasize that the relevance of these studies is limited to the context of higher education.

Therefore, the 24 choice factors analysed emerged from the above-mentioned literature review and the ones that most influence students' decision-making about VE in Portugal are: "internship opportunities during the course" (4.37); "personal interest" (4.36) and "job perspectives after completing the course" (4.25). These factors of choice can be justified by the fact that the VE - VC (Vocational Course) has the strong and permanent link to the labour market as a distinctive value and characteristic compared to other forms of Secondary Education (CEDEFOP, 2021). As we can see from the results of this investigation, students who opt for VE seek this connection with companies, with this choice factor scoring a level of influence of 4.07, on a scale of 1 to 5. This factor has even been identified in the literature as one of the most influential in students' decision-making at Secondary education (Le et al., 2020). The choice factors considered by students to be the least influential in their decision-making are the "level of difficulty of the course" (3.52) and the "school's ranking" (3.62).

These results, the most and least influential choice factors, corroborate previous research, namely: Le et al. (2020) regarding the least influential factors and Maringe (2006); Meštrović et al. (2019);

Mitić (2020) and Simões and Soares (2010), regarding the factors considered to be most influential in students' decision-making.

We emphasise that the 24 choice factors investigated present a different level of influence, greater than 3, which reflects the influence of all of them on the students' decision-making process for VE. This result matches the conclusions of research carried out by Le et al. (2020); Maringe (2006); Meštrović et al. (2019); Mitić (2020) and Simões e Soares, (2010), although in the context of Secondary Education, which state that there are differences in the level of influence of each choice factor in the students' decision-making process. Hypothesis 1 was therefore validated.

6. CONCLUSION, IMPLICATIONS, LIMITATIONS AND FUTURE INVESTIGATION

The purpose of this investigation is to understand students' decision-making process regarding VE in Portugal, particularly the influence of choice factors.

Looking at the 24 choice factors analysed, we can conclude that all of them influence students in their decision to take a VE. Within these factors, "Job perspectives after completing the course" (4.25), "Personal interest" (4.36) and "Internship opportunities during the course" (4.37) stand out, while the least important are "Level of difficulty of the course" (3.52) and "School ranking" (3.62). This investigation makes an important contribution to the theory and management of VEI. In theoretical terms, it has made it possible to study the factors of choice, as well as specifically the context of VEI. For VEI management, it enabled to understand the most influential choice factors during the student's decision-making for VE in Portugal. This knowledge is crucial to attract new students in the competitive perspective of VEI and the tutelage, which has goals to achieve. Up until now, there has been no national or international research carried out in this field for this type and level of education.

We therefore recommend that those responsible for defining the VEI's marketing strategy, with the intention of attracting more students, realise the degree of complexity that this decision represents for students. This type of decision encourages them to seek more information. In this regard, it is crucial that when defining their communication and marketing strategy and, consequently, when creating and making content available, VEIs consider the choice factors that are the main decision-making elements (e.g. internship opportunities; connection between the institution and companies), thus minimising the risks and increasing the students' comfort in decision-making.

As a result of the outcome of this research, VEIs should make their connection to the corporate community more evident. To do so, they can develop a content marketing strategy, with constant and consistent publications in digital information sources about the VEI's partnerships with companies and other organisations, as well as the publication of national and international internship and job offers in the VEI's training areas. This strategy will aim to establish the VEI in the minds of students as having a strong connection with companies and that the student's area of interest is popular in the market.

We can't neglect the fact that the target segment for VEIs is Generation Z, which is typified by its impatience, striving to get everything quickly and easily. In short, the VEIs and the Ministry of Education must consider all these implications to boost their attraction of students to Vocational Education.

With respect to the limitations and recommendations of this investigation, one of the clearest limitations was the scarcity of literature on the subject being analysed and the target population of this investigation (generation Z), which corresponds to a generation that lacks the availability and motivation to answer extensive questionnaires. Another limitation was the time of year at which we implemented the data collection questionnaire, which made it harder for people to respond to the questionnaire and therefore made it difficult to reach the ideal sample for the investigation, as it is perceived from the characteristics of the methodology used, however, it followed the same approach as the research findings presented in the literature review. We recommend for future research that the questionnaire to be implemented should contain fewer questions to facilitate data collection and analysis, and that the data collection should ideally take place during the first term of the school year and that a factor analysis should be carried out on the data collected in this research.

REFERENCES

- Al-Abdallah, G., & Ababakr, K. (2025). Exploring the Mediating Effect of Digital Versus Traditional Marketing Communication on Students' Selection of Higher Education Institutions in Developing Countries. *Human Behavior and Emerging Technologies*, 2025(1). <https://doi.org/10.1155/hbe2/5510524>
- Alonso, C. L. (2019). *Marketing Educativo - Captación y fidelización nde alumnos*. Madrid: ESIC.
- Areces, D., & J.Rodríguez-Muñiz. (2022). Differences About Reasons and Sources of Information for Chosing Degree Courses. *Psicothema*, pp. 95-101.
- Barboza, M. M., Ormany, C. G., Arruda, É. E., & Toaldo, A. M. (Janeiro, Fevereiro, Março, Abril, Maio e Junho de 2013). Análise da Gestão de Marketing das Escolas Privadas através da

- operacionalização das estratégias do composto de marketing. *Revista Brasileira de Administração Científica*, 4(1), pp. 33-49. <https://doi.org/10.6008/ESS2179-684X.2013.001.0003>
- Barbosa, B. (Março, 2023) Como Valorizar o Ensino Secundário Profissional? Dilemas, Desafios e Oportunidades. Porto. Fundação Belmiro de Azevedo.
- Basha, A. (Fevereiro de 2019). A study on effective digital marketing strategy in education sector at bangalore city. *International Journal of Research and Analytical Reviews*, 6, pp. 161-169
- CEDEFOP, C. E. (2021). EFP em destaque em Portugal 2021. Lisboa: CEDEFOP.
- CEDEFOP, C. E. (2021). O sistema de educação e formação profissional em Portugal: descrição sumária. Luxemburgo: Serviço das Publicações da União Europeia.
- Cubillo, J. M., Sánchez, J., & Cerviño, J. (2006). International students' decision-making process. *International Journal of Educational Management*, 20(2), pp. 101-115. <https://doi.org/10.1108/09513540610646091>
- DGEEC. (2022). Alunos matriculados no ano letivo 2020/2021. DGEEC, Direção Geral de Estatísticas da Educação e Ciência. <https://www.dgeec.mec.pt/np4/408/>
- Erdil, D. Ü., Tümer, M., Nadiri, H., & Aghaei, I. (Abril - Junho de 2021). Prioritizing Information Sources and Requirements in Students' Choice of Higher Education Destination: Using AHP Analysis. *SAGE Open*. <https://doi.org/10.1177/21582440211015685>
- Gondane, D. V., & Pawar, M. (2021). A study on Impact of Digital Marketing Strategies on Education. *Xilkogretim Online - Elementary Education Online*, 20, pp. 2503 - 2511. <https://doi.org/10.17051/ilkonline.2021.01.283>
- Ho, G. K., & Law, R. (2020). Marketing Strategies in the Decision-Making Process for Undergraduate Choice in Pursuit of Hospitality and Tourism Higher Education: The Case of Hong Kong. *Journal of Hospitality & Tourism Education*, pp. 124-136.
- Kotler, P., & Fox, K. F. (1994). *Marketing Estratégico para Instituições Educacionais*. Brasil: Editora Atlas.
- Kusumawati, A. (Junho de 2019). Impact of Digital Marketing on Decision-Making Process of Higher Education Institution: A Case of Indonesia. *Journal of e-Learning and Higher Education*. <https://doi.org/10.5171/2019.267057>
- Le, T. D., Robinson, L. J., & Dobeles, A. R. (2020). Understanding high school students use of choice factors and word-of-mouth information sources in university selection. *Studies in Higher Education*, 45(4), pp. 808-818.
- Lubbe, I., & Petzer, D. J. (2013). Key information sources influencing prospective students university choice a South African perspective. *South African Journal of Higher Education*, 27(4), pp. 920-940. <https://doi.org/10.20853/27-4-275>
- Madeira, S. R. (2022). *Estatísticas gerais da Educação 2020/2021*. Madeira: Madeira - Governo Regional.
- Magalhães, M., & Hill, H. &. (1998). *Investigação empírica em ciências sociais: um guia introdutório*. Dinâmia - Centro de Estudos sobre a mudança socioeconómica.
- Maringe, F. (2006). University and course choice - Implications for positioning, recruitment and marketing. *International Journal of Educational Management*, 20(6), pp. 466-479.
- Meštrović, D., Bagarić, L., & Marot, N. J. (Novembro de 2019). Information Sources and Factors Influencing Enrolment in ICT and STEM University Study Programmes. <https://doi.org/10.15458/85451.80>
- Mitić, S. (1 de Outubro de 2020). Factors affecting higher education institution choice: attitudes of serbian high school students. 2020.
- Núñez, V. (2017). *Marketing Educativo - Cómo comunicar la propuesta de valor de nuestro centro*. Espanha: SM.
- Pinna, M., Chiappa, G. D., & Gallarza, M. G. (2018). Factors and information sources influencing students' consumer behaviour: a case study at an Italian public university. *International Journal of Management in Education (IJMIE)*, 12(4), pp. 351-374.

- Quivy, R., & Campenhoudt, L. V. (2005). *Manual de investigação em ciências sociais*. Lisboa: Gradiva.
- Retamosa, M., Millán, A., & García, J. A. (27 de Fevereiro de 2022). The journey towards finding your favourite university. A segmentation study based on selection criteria. *Journal of Marketing for Higher Educations*. <https://doi.org/10.1080/08841241.2022.2058146>
- Simões, C., & Soares, A. M. (Junho de 2010). Applying to higher education: information sources and choice factors. *Studies in Higher Education*, 35(4), pp. 371-389.

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