



# The Distribution of Information Sources within the University Selection Decision-Making Process: A Longitudinal Study

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Received: September 30, 2022. Revised: October 27, 2022. Accepted: November 05, 2022.

## Abstract

**Purpose:** Increasing competition in the higher education sector has prompted universities to enhance their marketing efforts and understand their potential customers. The study aims to explore how information sources are used and changed among prospective Vietnamese students during the decision-making process. **Research Design, Data, and Methodology:** This study undertakes a longitudinal study involving multiple rounds of data collection to better understand the decision-making process of prospective students. Data was collected from 12<sup>th</sup>-grade students in Vietnam through two rounds of quantitative surveys with 251 students and one round of qualitative interviews, spanning the duration of their senior year. The three stages of the decision-making process correspond to the three stages of pre-purchase period. **Results:** Most students decide that attending open days, taking career assessments, and looking up information online are the most important information sources to consider. The WOM sources are more important in the early stages, while university-generated sources and events are important in the later stages. **Conclusion:** Implications from this study may contribute to the design of more effective marketing communications campaigns as university marketers gain a better understanding of the distribution of information sources utilized for each specific stage of the decision-making process.

**Keywords:** Distribution of Information Source Usage, Decision-Making Process, Longitudinal Study, Higher Education, WOM Sources, Marketing-Controlled Sources

**JEL Classification Code:** L15, L86, M31

## 1. Introduction

Higher education is a turning point in the lives of all adolescents. Choosing a university appears to be a prospective student's first independent decision. This life-altering decision affects almost every aspect of their lives,

including career goals, relationships, finances, intellectual development, and even social standing (Galotti, 1995). Therefore, the pursuit of higher education is a one-of-a-kind decision.

Higher education is classified as a service sector as educational products exhibit all four service-specific

\* This research is funded by Vietnam National University HoChiMinh City (VNU-HCM) under grant number C2020-28-01

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characteristics, including intangibility, inseparability, variability, and perishability (Brown et al., 2009; Simões & Soares, 2010). Considering service attributes (Mitra et al., 1999), higher education is further described as a credence-based service, a unique type of service that is difficult to evaluate even after consumers purchase it (Patti & Chen, 2009). This assumption is justified because higher education services provide all intangible results in terms of knowledge and skills, which are challenging for learners to assess even after they have finished their bachelor's. Furthermore, students do not have any actual experience with the service before purchasing it (Levitt, 1981; Mitchell & Greatorex, 1993; Murray & Schlacter, 1990), which raises the risk related to university selection. Prospective students must utilize information from as many sources as possible in order to minimize uncertainty. A student's decision to enroll in any tertiary institution is a complicated, high-involvement, and risky one (Briggs, 2006), necessitating additional research by university administrators and marketers.

The higher education setting has changed significantly over time. Until the late 1980s, higher education institutions were governed by a strict framework that included guaranteed funding and student quotas (Bonnema & van der Waldt, 2008). Marketing was previously assumed to be a business term that only applied to commercial organizations and not educational organizations. However, things have changed dramatically in the field of tertiary education. In recent years, universities have lowered their reliance on government financial support and have gradually worked toward greater autonomy and accountability (Tran, 2014). Universities must also compete for quality students on a national and global scale (Marginson, 2006). These conditions in the higher education environment, like those in other business sectors, have fostered the massive marketization of educational service sectors (Soutar & Turner, 2002). Students are gradually coming to see themselves as customers. To successfully attract their future 'customers', university marketers must understand the importance of various information distribution channels, particularly during the stage of university selection.

In the higher education literature, there is a fair amount of research on information sources. However, most of the studies were conducted based on cross-sectional data. Actually, selecting a university is a time-consuming process (Galotti & Mark, 1994), but few studies have investigated the distribution of information source usage at different stages of the decision-making process. From a marketing standpoint, by examining how a college decision has been shaped over the decision-making process, university marketers can make better predictions about students' behavior and know what type of information to deliver at a specific time in the decision-making process (Galotti & Mark, 1994). The study's findings contribute to the literature

of higher education marketing and distribution science over the decision-making process of consumers. It adds more knowledge about marketing communication and information distribution channels that universities can use to recruit students. Based on the study's findings, universities could decide how to distribute marketing materials and information at various stages to effectively recruit prospective students.

## **2. Literature Review**

### **2.1. The Decision-making Process of Prospective Students**

The decision-making process of prospective students is a perennial research topic in higher education. The growing competition in both national and global higher education (Marginson, 2006) has highlighted the need for more comprehensive research on prospective students' decision-making processes (Simões & Soares, 2010). Furthermore, adopting intimate knowledge of potential students' decision-making processes is essential for enhancing the effectiveness of promotional content throughout various communication channels (Le et al., 2019) and enhancing the student-institution match (Pampaloni, 2010).

Many studies on higher education have looked into various aspects of prospective students' decision-making process. As previously stated, higher education is a credence-based service since the potential customer has no firsthand experience (Levitt, 1981; Mitchell & Greatorex, 1993; Murray & Schlacter, 1990), and it is difficult to assess the higher education service even after experiencing it. The perception of risk and far-reaching consequences of university selection in one's life (Galotti, 1995) has led to a complex, multi-stage, and time-consuming decision-making process (Maringe, 2006; Mogan et al., 1999; Stephenson et al., 2016; Vrontis et al., 2007). Prior research has also shown that prospective university students are discerning market customers (Maringe, 2006). To reduce risk perception, high school students typically devote significant time to actively evaluating the alternatives, gathering relevant information, and assimilating it before making their final college decision (Galotti, 1995). Because a plethora of situational and contextual factors are involved, the decision-making process of prospective students is compared to an extensive problem-solving process (Kotler & Keller, 1997). The current higher education setting adds to the intricacy of the decision-making process by providing prospective students with various choices. Every year, the number of institutions of higher education in Vietnam grows. To illustrate, statistics show that the number of institutions in Vietnam grew from 159 public universities and 60 private

universities in 2014 to 172 public universities and 65 private universities in 2019.

A few decision-making process models have been created to conceptualize a prospective student's decision-making process, which includes three to seven stages. Most models are based on general consumer decision-making behavior models in the service industry. Many student enrolment choice processes emerged during the 1980s and 1990s, including the Chapman model (Chapman, 1981), the Kotler and Fox model (Kotler & Fox, 1995), the Hossler and Gallagher model (Hossler & Gallagher, 1987), and the model in the study of Goff et al. (2004). According to Hossler and Gallagher (1987), the student decision-making process is divided into three stages: predisposition, search, and choice. Students first decide whether or not to pursue a college education (predisposition). Following that, they gather information from various sources and create a consideration set (search). Finally, they choose to attend a specific university over other options (choice). This is the most basic model, and it has been crucial in developing subsequent contemporary studies on college selection (DesJardins et al., 2006; Perna, 2006). Kotler and Keller (1997) proposed another five stages in the decision-making process: need recognition, information search, alternative evaluation, purchase, and post-purchase evaluation. The decision-making process starts when students recognize the importance of furthering their education (problem recognition stages). The students then gather information to understand their choices (information search) and compare their preferences to comparable alternatives. The purpose of this study is to look into how Vietnamese prospective students' information-source usage changes over time. Only three pre-purchase stages are considered in this study, as similar to the previously discussed decision-making models (Hossler & Gallagher, 1987; Kotler & Keller, 1997).

Regarding the timing effect, a variety of models have referred to college selection as a developmental process. There are anticipated shifts in information source usage at various stages of the process (Galotti & Mark, 1994). Despite this, most studies in Vietnam have not addressed the shift in students' information source usage at various stages of the decision-making process. For the reasons stated above, a longitudinal design would be most beneficial in gauging changes in students' perceptions during the decision-making journey.

## 2.2. Information Source Usage in the Decision-making Process

In this research field, it is common to investigate information source usage alongside decision factors (Dao & Thorpe, 2015). Institutions prefer to investigate the information sources on which prospective students rely

during the decision-making process in order to develop successful student recruitment strategies (Veloutsou et al., 2004). As consumers seek information from more sources in the decision-making process when they perceive a higher degree of risk (Mitra et al., 1999; Murray & Schlacter, 1990), prospective students are expected to spend time seeking information from a variety of sources to support their university decisions (Bonnema & van der Waltd, 2008). According to research on Greek tertiary students, more than half of the sampled students spend approximately 40 days deciding on a tertiary institution (Menon et al., 2007). They spend this time methodically and prudently gathering information on two tertiary institution options. Students will continue to acquire information until their thirst for needed information is completely satisfied. Thus, tertiary institutions should not focus on one medium of communication while ignoring the others (el Nemar et al., 2020).

Information sources are classified as impersonal and personal (Patti & Chen, 2009), direct, media, and social (Bonnema & van der Waltd, 2008), or online and offline (Patti & Chen, 2009; Dao & Thorpe, 2015). Hemsley-Brown and Oplatka (2015) distinguished two types of information sources: marketing-involvement sources and word-of-mouth (WOM) sources. Marketing-involvement sources are primarily one-way and managed by university administrators. They are all direct university organization sources, as well as sources for print, digital, and outdoor media, such as 'websites', 'brochures', 'career exhibitions and assessments', 'open days', and 'advertisements' on various channels (billboards, TV, radio, magazines, newspapers). Meanwhile, WOM information sources include 'close friends', 'former or current students at the institution', 'school counselors/guidance teachers', 'parents and guardians', and 'family members' (other than parents and guardians). WOM information sources are important in prospective students' university selection because the role of personal influence (forms of WOM) in consumer purchasing is stronger for perceived riskier services (Murray & Schlacter, 1990). Furthermore, prospective students frequently rely on the advice or suggestions of people they believe to be more knowledgeable or experienced than they are.

Many researchers have attempted to ascertain the influence of various information sources on students' decisions to select the most effective channel for promoting the institution (Hemsley-Brown & Oplatka, 2015). Prospective students' primary sources of information have traditionally been university websites and brochures (Constantinides & Zinck Stagno, 2011). However, contradictory findings show that students do not consider typical marketing-related materials such as websites, prospectuses, and other written materials to have a

considerable impact on their decision-making. They may believe that the information provided by these channels is insufficient, deceptive, or untrustworthy (Ivy, 2008). Notably, a campus visit outperforms any other marketing-related source of information. Hosting a prospective student on campus appears to be one effective way for a university to break through the maze of pamphlets, emails, and web pages to attract him or her (Johnston, 2010). When it comes to WOM information sources, social media is another useful tool for selecting tertiary institutions (Nemar & Vrontis, 2016). Furthermore, many institutions are beginning to recognize the important roles that parents and peers play in a student's university selection. Universities must consider whether it is necessary to focus on these key individuals because their advice during university evaluation is even more influential than marketing-involvement sources (Gibbs & Knapp, 2012).

### 3. Methodology

#### 3.1. Research Design

This descriptive study employed a longitudinal approach (panel analysis) with three data collection phases, two phases of quantitative survey and one phase of interview. The research was subject to an ex post facto design, only reporting what was happening to the prospective students to eliminate bias. Questionnaire surveys were employed in the first two stages to capture the degree of importance Vietnamese prospective students associated with numerous information sources. In terms of information sources, 16 relevant items were adapted from Bonnema and van der Waldt (2008) and classified in two dimensions (Le et al., 2020): marketing-controlled and WOM sources. The questionnaire consists of items which were measured on importance through a seven-point Likert scale for all of the items. The respondents were asked to mark their answers by rating each of the items with their importance evaluation. Regarding the information sources, students were questioned with "During your decision-making process of higher education, please rate how important each of the following information resources are to you". Considering all of the items mentioned in these sections, the scale was from 1 to 7, which 1 is equal to "not important at all" and 7 is equal to "extremely important". In order to interpret the descriptive analyses and perform factor analysis, IBM Statistics SPSS 22 program was used for this study. To illustrate the importance level of the factors, mean values were taken into consideration. In the interview, students were asked to describe the most important information sources they refer to during the decision-making process and explain how the list of important factors had been changed.

**Table 1:** Information sources for the decision-making process of prospective students

Dimension	Items
Marketing-controlled Sources	Institution websites
	Institution informative brochures
	Billboard advertising
	Television advertising
	Radio advertising
	Magazine advertising
	Newspaper advertising
	Exhibitions of career/profession
	Open days
	Assessments of career/profession
	University's distribution of free publications
WOM Sources	A close friend's consultation
	A past or current student of institution consultation
	A school counselor/guidance teacher consultation
	A parent and guardian consultation
	A family member's consultation (other than parents and guardians)

Regarding sample selection, this study was aimed at identifying the critical elements that influenced the university choice of 12<sup>th</sup>-grade students; therefore, only 12<sup>th</sup>-grade students were included in the study. They are students at Thu Duc high school and Nguyen Huu Huan high school in Ho Chi Minh City, Tien Giang high school for the Gifted in Tien Giang province, and Van Hien high school in Dong Nai. The respondent must intend to pursue higher education after graduating from high school. Regarding sampling location, a number of the selected areas were studied for a more comprehensive indication of Vietnamese students' perceptions. Those selected areas were the high schools in Thu Duc district (Ho Chi Minh City), My Tho city (Tien Giang province), and Long Khanh city (Dong Nai province). This study employed convenience sampling, which determined the respondents based on availability.

#### 3.2. Data Collection Method

Before conducting the official survey, pilot tests were carried out by five high school students to ensure comprehensibility and to receive feedback on improving the questionnaire's clarity. The first page of the questionnaire consisted of an overview that briefly explained the study's objective, the benefits for the participants, and instructions on completing the survey. The online self-administered survey was then distributed via email to 12<sup>th</sup>-grade students in some selected Vietnamese cities. The survey was then redelivered and collected from the same sample population in the second phase, and the respondents of the second phase were invited to participate in an interview in the third phase. The three data collection phases were selected to broadly

represent the three pre-purchase steps of Vietnamese prospective students. The first phase of data collection was at the beginning of the 12<sup>th</sup> grade high school year in September. At this time, students have very little or basic knowledge about university selection, which corresponds to the need for a recognition phase in the decision-making process. The second phase was from February to March. During this phase, universities engage in extensive marketing activities such as open days and campus visits, while prospective students facilitate their information search. The last phase was at the end of the 12<sup>th</sup> grade school year when prospective students made a substantial effort to integrate the information and evaluate the alternatives. Respondents were required to evaluate the importance of the information sources concerning the decision-making process for choosing a university.

### 3.3. Measurement Scale

The questionnaire was made up of items that were rated on their importance, using a seven-point Likert scale. In terms of information sources, participants were asked, "On a scale from 1 to 7, please rate how important each of the following sources of information is to you when considering your university choice?" (with 1= 'not important at all' and 7= 'extremely important'). An interview protocol was developed to focus on the discussions about the changes during the decision-making process of prospective students. Interview questions were asked to explore the reasons for the changes over the phases.

### 3.4. Analysis Technique

IBM SPSS 26 program was used for this study. The responses of the participants were described using descriptive statistics. Mean scores and standard deviation were reported to present the importance of each item. The mean values of the information sources in phase two were compared to the phase one data to identify the changes, which reflected the importance of changes related to each information source. The qualitative data from the last phase was coded by two independent coders and then analyzed by the research team.

## 4. Data Analysis

### 4.1. The First Phase: Quantitative Data

Table 2 and Table 3 show the mean scores and the ranks of the information sources evaluated by students during the first two phases. The ranking of information sources in these tables is based on the total mean scores of the whole sample.

These tables rank the most prominent information sources first, with the least influential at the bottom.

**Table 2:** Ranking of the Importance of Information Sources in Phase 1

Phase 1: Ranking of the Importance of Information Sources					
Ranking	Information sources		N	Mean	Std. Deviation
1.	Advice from school counselors /guidance teachers	IS14	251	5.59	1.194
2.	Open days at institutions	IS9	251	5.54	1.465
3.	Career assessments	IS10	251	5.43	1.411
4.	Institutions' Websites	IS1	251	5.38	1.349
5.	Advice from past or current students of institutions	IS13	251	5.37	1.403
6.	Career exhibitions	IS8	251	5.28	1.451
7.	Advice from parents and guardians	IS15	251	5.27	1.345
8.	Free publications distributed at schools	IS11	251	5.24	1.422
9.	Advice from family members (other than parents and guardians)	IS16	251	4.65	1.551
10.	Advertisements in newspapers	IS7	251	4.55	1.483
11.	Advertisements on television	IS4	251	4.38	1.553
12.	Information brochures from institutions	IS2	251	4.35	1.472
13.	Advertisements on billboards	IS3	251	4.25	1.471
14.	Advice from a close friend	IS12	251	4.22	1.689
15.	Advertisements in magazines	IS6	251	4.08	1.581
16.	Advertisements on radio	IS5	251	3.53	1.596

Several major insights emerge from the data. In the first phase, advice from school counselors/guidance teachers (M = 5.59), open days at institutions (M = 5.54), and material posted on websites (M = 5.38) were the most popular sources of information for students. It indicates that high school teachers play a significant role in student orientation in the early stages of the decision-making process. The advertisements in the media were among the unimportant information sources, and the least used information sources at this phase were those in magazines (M = 4.08) and on the radio (M = 3.53). Advice from close friends (M = 4.22) seemed to be not a reliable source for this life-change decision.

**Table 3:** Ranking of the Importance of Information Sources in Phase 2

Phase 2: Ranking of the importance of information sources					
Ranking	Information sources		Mean	Std. Deviation	Change
1.	Open days at institutions	IS9	5.08	1.545	-0.46
2.	Institutions' Websites	IS1	5.02	1.62	-0.36
3.	Career assessments	IS10	4.94	1.633	-0.49
4.	Career exhibitions	IS8	4.94	1.633	-0.34
5.	Advice from school counselors /guidance teachers	IS14	4.78	1.579	-0.81
6.	Free publications distributed at schools	IS11	4.66	1.704	-0.58
7.	Advice from past or current students of institutions	IS13	4.61	1.584	-0.76
8.	Advice from parents and guardians	IS15	4.39	1.661	-0.88
9.	Information brochures from institutions	IS2	4.25	1.563	-0.1
10.	Advertisements in newspapers	IS7	4.09	1.781	-0.46
11.	Advertisements on television	IS4	4.02	1.723	-0.36
12.	Advertisements on billboards	IS3	3.9	1.692	-0.35
13.	Advertisements in magazines	IS6	3.84	1.75	-0.24
14.	Advice from family members (other than parents and guardians)	IS16	3.77	1.798	-0.88
15.	Advice from a close friend	IS12	3.73	1.694	-0.49
16.	Advertisements on radio	IS5	3.26	1.73	-0.27

#### 4.2. The Second Phase: Quantitative Data

In the second phase, the mean scores of all information sources decreased from the first phase. This shows that in the second semester, prospective students might have collected sufficient information, particularly from the advice of people around them.

During this phase, students relied even more on marketing-controlled information sources provided by universities, such as information from open days at institutions ( $M = 5.08$ , rank 1) and websites of the institutions ( $M = 5.02$ , rank 2). Open days at colleges were continuously recognized as one of the most essential information sources throughout the first two phases. The reason for this is that events such as open days are organized during the second semester. This result also shows that the information from the service providers is considered the

most reliable in the higher education sector. Although university open days are not very popular in Vietnam, most prospective students feel that being able to connect directly with faculty or visit the school is a type of promotion that has a significant influence on their choice of institution. Prospective students are also drawn to career assessments and career exhibitions, as these information sources are ranked third and fourth.

Media channels such as newspapers, television, billboards, and magazines turned out to be unimportant information sources in this context, as prospective students did not depend heavily on these channels throughout the decision-making process. University marketers in Vietnam who invest in online media channels as a marketing strategy should be aware of this result. These media channels are not a legitimate source of preference for prospective students when it comes to purchasing higher education. Therefore, perhaps one certain way for a university to reach a prospective student among the cacophony of pamphlets, billboards, emails, and websites is to host him or her on campus.

The findings also revealed differences in the usage of marketing-controlled and WOM sources among the students across two phases. The largest mean changes could be seen from advice from parents ( $M$  change =  $-0.88$ ), advice from other family members ( $M$  change =  $-0.88$ ), and advice from school advisors ( $M$  change =  $-0.81$ ). At the start of the school year, most prospective students preferred WOM information, particularly from school counselors/guidance instructors. However, in the second phase, the rating of 'advice from school counselors/guidance teachers' dropped significantly from first to fifth place. At this phase, Vietnamese pupils favored marketing-controlled information sources over WOM sources. Official information from open-day events held by the school and material placed on the school's website, in particular, had a greater influence on students than recommendations from parents, instructors, and relatives on selecting a university. This is consistent with earlier research that has emphasized the importance of such decision variables (Mazzarol & Soutar, 2002; Soutar & Turner, 2002; Veloutsou et al., 2004; Briggs, 2006). However, the results from our study contrast with the findings of Maringe (2006), who found that students do not view traditional university promotional materials such as websites, prospectuses, and other written materials to have a significant effect on their choice and decision-making process.

#### 4.3. The Third Phase: Qualitative Data

The interview in the third phase further revealed the findings in the longitudinal approach. Prospective students participated in the interview and explained how their

decision-making process changed over the school year. The data from interviews was quite consistent with the findings from the two quantitative surveys. Among the marketer-controlled sources, 'university website' was the most frequently utilized, as revealed by nine of the fifteen students who participated in the interview. Another two of the remaining respondents cited it as one of the two most important sources they consulted in university selection. This was consistent with the findings of Maniu and Maniu (2014), who discovered that university websites are the most popular source of information about a tertiary institution.

*Normally, I learn about the business major that interests me. Then I'm going to check out the school's website. I will be more interested in, and influenced by, the job for which I am considering a major. There are a few schools, but websites don't describe them well, so I'm like... I was absent from a few schools (Student No. 1).*

*I think the resources are on the website, because like... every school, every school has a lot of training programs, and so on. So I spend a lot of time on the internet going over the training programs one by one (Student No. 7).*

Some interviewees said that they relied on the website to get official information and then receive recommendations from the WOM sources.

*I think that I spend the most time researching on the school's website and listening to advice from the admissions committee. But, before I make a decision, I'll ask alumni about their experiences to see if the school is truly what the admissions officers claim (Student No.13).*

Due to the fact that university websites were highly rated as an important information source, universities must ensure that their websites are easy to use and informative about the many services and facilities that new students will find on campus.

*I spend a lot of time learning about the majors that I'm interested in. So I'll go to the school's website and check it out for myself. I will be more interested in a university that provides a good description of what they offer, and this will undoubtedly influence the major I choose. I skipped some universities because of inadequate descriptions on their websites (Student No.11).*

*Yes, I can't find much information on the school's website; in fact, there isn't much on the school's website... Most of the information I obtain comes from the school's alumni. (Student No.6).*

Another reason for the importance of university websites is the complicated enrollment options and procedures recently in Vietnamese universities. In recent years, each university has introduced a number of enrollment options to increase a candidate's prospects of being accepted into the institution. Direct admission, test scores from the Vietnam National University in Ho Chi Minh City, IELTS exam scores, academic records, and high school graduation exam

scores are some of the popular enrolment methods at Vietnamese universities. Each enrollment method has a different ratio in the university's overall admission strategy, and the difference is quite large. However, a plethora of enrollment options may generate uncertainty among prospective students and partly cause difficulties in capturing information. Therefore, prospective students are prompted to devote their time to thoroughly reading over the intricacies of all of the enrollment options as well as the training program to ensure that they do not miss any admission chance.

*As I have done extensive research on the school's enrollment procedures, the school's website is really my primary source of information. However, because the writing on the school's website is lengthy, I must spend more time reading and studying in order to fully comprehend what the university wanted to convey (Student No. 1).*

The events from universities or other third-party organizers also attract the attention of prospective students. University selection is a one-off decision that influences their future, so they are willing to spend time on any events such as open days, school visits, or career exhibitions that help them understand more about the universities, their abilities, and future career.

*Yes, because each of these open-day sessions will provide me with pretty precise information sources, as there will be direct representatives from the institution in attendance. And if I'm interested in that school, I can ask questions immediately, without having to look online and wonder whether or not the information is accurate. (Student No.7).*

*Usually, I look it up on Google first, then go to the university's website to see what they have to offer, and finally, I go to my school for a career assessment. The value of career counseling in school cannot be overstated, as I learned a lot from these sessions (Student No.10).*

*In addition, there was one occasion when I was permitted to visit the International University. Yes, I believe such a visit plays an important role. Since I can observe university clubs, facilities, and feel the atmosphere at the university when I visit the International University. That, I believe, has a significant impact, because several of my classmates are applying to the International University (Student No. 9).*

Studies have shown that students tend to rely primarily on information sources developed by the university (e.g., brochures, leaflets, university websites), while interpersonal sources (e.g., parents, teachers) and/or career services are of less importance (Veloutsou et al., 2004; Briggs & Wilson, 2007). Consistent with previous studies, the interviewees also said that they referred to the WOM sources at the beginning of the school year, but then relied on sources and events from universities as the people around them might

not have enough updated information.

## 5. Conclusion

When it comes to choosing a university, most students decide that attending open days, taking career assessments, and looking up information online are the most important information sources to consider. This is in line with previous studies such as Constantinides and Zinck Stagno (2011) and Johnston (2010). Although open days and websites are not the primary promotional tools for Vietnamese universities, students are increasingly reliant on these sources of information. Therefore, universities should be wise to adapt their strategies. Universities must strive to make their websites user-friendly and informative. To attract prospective students, universities should also invest in interesting events such as open days or career exhibitions and frequently offer school visits (Le et al., 2020).

The WOM information sources are less important overall, but they are important at the beginning of the school year when prospective students have a lack of information. Word of mouth may pique the interest of prospective students in specific majors and universities, and the decision-making process may then take that intriguing path (Murray & Schlacter, 1990). The most used WOM information source is advice from school counselors/guidance teachers, followed by advice from alumni, then advice from parents and supervisors. Although control sources such as university websites play an important role in information distribution during the university selection process, the role of school counselors/guidance teachers and alumni should not be underestimated, particularly at the start of the school year. According to Richins (1983), dissatisfied alumni may propagate unfavorable WOM, which may impact prospective students' choice of institutions. The value of peer faculty students' WOM recommendations was also highlighted in the study of Băcilă (2008), and their views were regarded seriously by prospective students. Thirdly, for Vietnamese responders, their parents are not the most significant source of information (ranked 7 in the 1st phase and ranked 8 in the 2nd phase). This result is in line with the study of Băcilă (2008), who conducted research on students in Romania and discovered that prospective students would avoid getting information for university selection from their parents, phone inquiries, radio, or newspapers. However, this finding contradicts previous research in Vietnam, which found that when it comes to selecting a university, the most important source of information for students is their parents, due to Vietnam's collectivist culture and Confucian traditions, in which parents have a high degree of control over their children's future (Choi & Nieminen, 2013; Le et al., 2020; Tran, 2014).

## Limitations and implications:

In the future, similar studies should be conducted on a national scale to uncover the attraction forces created by various colleges in neighboring localities. By doing so, the poll may reveal differences in decision-making processes among students from various areas of the country.

Given the popularity of social media among prospective students, other WOM factors such as social media should be included in future research. The influence of social media on the decisions to study and attend a certain college of prospective students should be further investigated and compared to more conventional types of university marketing.

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