A Factorial Model Regarding Motivation for Faculty Decision

Florinda Golu\textsuperscript{a}\textsuperscript{*}, Adrian Gorbănescu\textsuperscript{a}

\textsuperscript{a}University of Bucharest, Faculty of Psychology and Educational Sciences, Bucharest, Romania

Abstract

This paper proposes to underline a factorial model which gathers all the decision factors involved in when the adolescences choose a faculty. We started from the premises that these decision factors will be grouped in two categories: reputation and pressure. Using 280 subjects, we could see that the variables involved in choosing a faculty are grouped in four factors: reputation, personal development, accessibility and pressure. The first factor, reputation, is composed in principal from brand variables and teachers. The second factor, personal development, is composed from the variables career development and passion. The third factor (accessibility) is composed from the variables fee and examination. The fourth factor (pressure) is composed from the variables parents and diploma. The total variance explanation is 75.27%.

Keywords: motivation, faculty decision, factorial model.

1. Introduction

Performance plays an important role in the motivational dynamics. It is also a consequence of the motivation; because the more a student is motivated, the more his performance will improve. A motivated student will be more perseverant; he will use adequate learning strategies which will influence his performance. The connection between motivation and performance should not be seen unilaterally, because the performance can also influence the motivation. According to Hansen [3], performance, as a concrete result of the learning activity, becomes for the student a source of information which influences his perceptions over his own competence.

The effect of the own perceptions of the student can be positive and negative. If a student succeeds in a learning process in which he was involved cognitively and he persevered for solving it, he will estimate that the performance was deserved. This fact will improve the opinion of the student concerning his own activity and will make him valorise more that type of activity. In the same time, a failure can have a negative effect over the

\textsuperscript{*} Corresponding author.

E-mail address: florindagolu@yahoo.com
perception of the student concerning his own competence, making him having doubts in what concerns his possibilities to succeed in the activities proposed by the teacher, according to Keller & Whiston [5]. A repeated failure can lead the student to the phenomenon of learned helplessness. The performance doesn’t represent a simple demonstration of what the student learned but it is also an event by which he judges, assesses himself, valorises himself as a person.

We are talking about aspiration when a wish points a model of which accomplishment form a progress, a development in a certain direction. A young aspires to become a doctor – for example. The term “the level of aspiration” refers to “expectances, scopes or the demands of a person, concerning his future accomplishment in a given task”, says Hujer [4]. These demands can be very different: a young person dreams to become qualified building worker, another - points to become building engineer, a third one hopes to revolutionize the technique of steel construction. Obviously, the performance level followed is fundamentally different and the necessary efforts to realize it are very different.

Borchert [1] realized a study and he observed that the teenagers, when they choose a faculty, are thinking about several aspects. Desire for flexibility suppose opportunity to operate on a more flexible work schedule, get use with other life needs (child care, transportation, other family needs), more free time for other professional activities (attend conferences, consulting, meet other professional commitments). Desire to provide a good (teaching)/learning experience for students suppose improved student learning outcomes, easy, effective communication with students, easy, effective communication among students and technology that’s uncomplicated, relatively simple to use. In another study [2], the researcher observed another two factors: creating new fields of inquiry for faculty (student development, teaching techniques and technology), providing new challenges after tenure and promotions are past.

2. Premises

The professional route of each one of us is determined by motivational factors. This is the reason why it is important to analyze and know very well which are the factors motivating us in choosing a faculty and a long turn path in what concerns the carrier. In any of us there is a factor which motivates us and each of us has a profile of the motivation and a value system. This is why, before choosing a faculty and before taking a decision, it is important to know our own motivations in order to take long term favourable decisions.

3. Objectives

In this paper we wish to underline the idea that the variables involved when choosing a faculty by the students can be grouped in a factorial model.

4. Hypothesis

The variables involved when choosing a faculty by the high school students can be grouped in a factorial model. We consider that the eight variables that we have taken into account can be grouped in two factors: personal development and pressure.

5. Variables

In this paper we used a set of eight variables, which we considered to be important in choosing a faculty:

- The brand – it refers to the level in which the faculty is appreciated by the subject and by the other persons or how well it is known the name of the faculty in the society. In order to measure this variable we used six
items. Example item: “I wish to follow a faculty with reputation”. “It is important that the name of the faculty that I will follow to have a big impact over the others”.

- The development of the career – considers the professional development opportunities of the subject. In order to measure this variable we used six items. Example item: “The faculty that I will follow must help me to have a future”. My career will be assured following the faculty that I want”.
- The teachers – takes into consideration the orientation of the subject to a faculty with good teachers. In order to measure this variable we used five items. Example item: “It is important the way in which I prepare myself, not the teacher who teaches me”. “The teacher has an important role in the development of my career”.
- The passion – it refers to the measure in which the subject chooses a certain faculty being enthusiastic by the opportunity to study and to develop a career in that domain. For measuring this variable we used five items. Example item: “The faculty that I will follow must correspond with the domains that I like” “It is important to follow a faculty of which domain to correspond with my abilities”.
- The entrance examination – considers the perception of the subject over the easiness with which can be matriculated in that faculty. This variable has been measured with the help of five items. Example item: “I will candidate to a faculty which could assure a big probability of success”. “The grade of the last person matriculated is an important criterion in choosing the faculty that I will follow”.
- The parents – it refers to the measure in which the subject has chosen that faculty as a consequence of the pressure made by his parents. This variable has been measured using six items. Example item: „The parents have a big influence in choosing a faculty”. „The parents are the ones who guided me to the faculty that I want to register”.
- The fee – it refers to the measure in which the subject chooses a certain faculty depending on the school fee asked by that institution. For this scale we used five items. Example item: „I will choose the faculty depending also on the financial circumstances of the family”. „Some faculties have very big school fees”.
- The diploma – it refers to the measure in which the subject considers that in life it is important to have a diploma because, further, the lings are working by themselves. For this scale we used six items. Example item: „In nowadays society what you know to do is more important than your specialization”. „In order to be employed you need a diploma”.

6. Subjects

There are 280 subjects (158 boys and 122 girls), students on the 12th grade in Bucharest, belonging from eight high schools. The subjects have ages between 17 and 19 years old, all coming from urban environment.

7. Methods and instruments

In making this research we built a questionnaire of 44 items concerning the orientation in choosing a faculty. The subjects should answer to the 44 items using a scale from 1 (total disapproval) to 5 (total approval). Initially, the questionnaire has been built with 56 items, having a Cronbach α of 0.76 (liminf95% = 0.61; limsup95% = 0.86). After eliminating 12 items which didn’t have a big correlation with the scale we obtained a Cronbach α of 0.82 (liminf95% = 0.71; limsup95% = 0.90). For brand scale we obtained a Cronbach α of 0.82 (liminf95% = 0.71; limsup95% = 0.90). For development scale we obtained a Cronbach α of 0.81 (liminf95% = 0.68; limsup95% = 0.89). For teachers scale we obtained a Cronbach α of 0.83 (liminf95% = 0.71; limsup95% = 0.91). For passion scale we obtained a Cronbach α of 0.84 (liminf95% = 0.73; limsup95% = 0.91). For entrance examination scale we obtained a Cronbach α of 0.79 (liminf95% = 0.64; limsup95% = 0.88). For parents scale we obtained a Cronbach α of 0.80 (liminf95% = 0.65; limsup95% = 0.89). For fee scale we obtained a Cronbach α of 0.83 (liminf95% = 0.71; limsup95% = 0.90). For diploma scale we obtained a Cronbach α of 0.82 (liminf95% = 0.69; limsup95% = 0.90).
8. Results’ interpretation

In Table 1 we present the descriptive statistics

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Mean</th>
<th>Confidence interval of mean</th>
<th>Standard deviation</th>
<th>Standard Error of mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand</td>
<td>11.38</td>
<td>10.78 – 11.98</td>
<td>3.61</td>
<td>0.30</td>
</tr>
<tr>
<td>Development</td>
<td>12.27</td>
<td>11.64 – 12.90</td>
<td>3.79</td>
<td>0.32</td>
</tr>
<tr>
<td>Teachers</td>
<td>10.21</td>
<td>9.58 – 10.85</td>
<td>3.79</td>
<td>0.32</td>
</tr>
<tr>
<td>Passion</td>
<td>11.71</td>
<td>11.08 – 12.33</td>
<td>3.74</td>
<td>0.31</td>
</tr>
<tr>
<td>Entrance exam</td>
<td>11.01</td>
<td>10.34 – 11.69</td>
<td>4.05</td>
<td>0.34</td>
</tr>
<tr>
<td>Parents</td>
<td>11.50</td>
<td>10.81 – 12.19</td>
<td>4.14</td>
<td>0.35</td>
</tr>
<tr>
<td>Fee</td>
<td>10.76</td>
<td>10.13 – 11.40</td>
<td>3.81</td>
<td>0.32</td>
</tr>
<tr>
<td>Diploma</td>
<td>11.70</td>
<td>11.01 – 12.39</td>
<td>4.14</td>
<td>0.35</td>
</tr>
</tbody>
</table>

In the exploratory factorial analyses we could see the fulfilment of the condition of multicolinearity of the variables included in the analyses. Thus, we can have a correlation between the brand variable and the variable development of the career \((r = 0.28)\), a correlation between the variable brand and the variable teacher \((r = 0.65)\). There is a correlation \((r = 0.64)\) between the variable passion and the variable career development, a correlation \((r = 0.30)\).

The level of the sphericity Bartlett test \((507.68; p<0.05)\) suggests the existence of one or more common factors, which justify the application of a factorial reduction procedure.

The table 2, Total Variance Explained shows us that only four factors succeed to achieve the selection criteria \((\text{Eigenvalue} > 1)\). The variation explained by each factor is distributed as follows: factor 1 – 25.11\%, factor 2 – 19.02\%, factor 3 – 17.92\% and factor 4 – 13.20\%. The four factors explain 75.27\% of the analysed variation values. After applying the rotation procedure can be seen a redistribution of the variation explained by each factor: factor 1 – 20.97\%, factor 2 – 20.96\%, factor 3 – 16.92\% and factor 4 – 16.40\%.

Following the analyses of the statistical results we could observe that the eight variables can be grouped in four factors. Thus, the first factor, which we can name reputation, is composed in principle from the variables brand \((0.91)\) and teachers \((0.88)\). The second factor, personal development, is composed from the variables career development \((0.87)\) and passion \((0.85)\). The third factor (accessibility) is composed from the variables fee \((0.75)\) and entrance examination \((0.79)\). The fourth factor (pressure) is composed from the variables parents \((0.84)\) and diploma \((0.78)\).

Table 2 – Rotated Factor Matrix

<table>
<thead>
<tr>
<th></th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
<th>Component 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passion</td>
<td>.856</td>
<td>.103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development</td>
<td>.871</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>.132</td>
<td>.899</td>
<td></td>
<td>-.112</td>
</tr>
<tr>
<td>Brand</td>
<td>.913</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents</td>
<td></td>
<td></td>
<td>.848</td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td></td>
<td>.788</td>
<td>-.210</td>
<td></td>
</tr>
<tr>
<td>Entrance exam</td>
<td></td>
<td></td>
<td></td>
<td>.155</td>
</tr>
<tr>
<td>Fee</td>
<td>-.238</td>
<td></td>
<td>-.103</td>
<td>.796</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.753</td>
</tr>
</tbody>
</table>
9. Conclusions

In high school years, the first grades offer the possibility to follow the evolution of the student in what concerns his working stile, the possibilities that he has, the interests and the preferred activities. All these will be the basis of the vocational decision from the final years. Our study proposed to underline which are the most important factors in choosing a faculty by the high school students. As we have shown, initially we started from a set of eight variables: brand, career development, teacher, passion, entrance examination, parents, fee and diploma in the attempt to cover as much as possible from the causative area of the vocational decision. Following the application of the questionnaire, we could see that the answers and the choice of the subjects can be grouped in four factors: reputation, personal development, accessibility and pressure. It results a factorial model which illustrates the repartition of the eight initial variables in four decisional categories. The choice of the faculty is a difficult step, the adolescent being caught between his own interests, the personal likes, the pressure of the parents, the financial factors etc.

10. Further directions

This research can be a premise in the vocational guidance of the teenagers, they being put in the situation to take a very important decision at tender age. The adolescents aren’t mature enough in the moment when they should choose a faculty and they risk taking a bad decision for their professional future. This is why it is important to know what the adolescent wants from the faculty, so as the educational psychologists to be very efficient in achieving the vocational guidance process.

References