Case Study

# Segmenting Distance Learners on the Basis of their Career Awareness and Perceived Employability: A Study of PG Economics Students of University of Jammu

## Neelam Choudhary [ORCID]

Directorate of Distance Education, University of Jammu, India
E-mail: neelam11choudhary@gmail.com

**Abstract:** This research explored the factors affecting awareness regarding graduate career prospects for distance learners of Economics, studying at the Directorate of Distance Education, University of Jammu, India. Distance learners completed a questionnaire about students' career intentions and motivation for undertaking the subject. Exploratory Factor Analysis (EFA) and Cluster Analysis were used to cluster these students into groups "based upon their perceptions and awareness" of graduate careers. The distance learners were aware of the career opportunities available to MA Economics graduates. Their awareness emerged as the most significant factor. However, they also show 'Perceived Poor job prospects'. Two clusters emerged: 'highly motivated learners' and 'moderately motivated learners'. The item 'Those studying for academics and competitive exams simultaneously don't achieve anything in life' emerged as the most influential in forming the clusters. The findings highlight an urgent need for early counselling for these students. Their competitive inclination can be seen from their response to the question 'Why distance mode was chosen', as 47% responded that it was due to their preparing for the competitive exams simultaneously. Their job preferences for the banking sector (26.3%), education sector (22.5%) or acceptance of any job (16.5%) show that their pursuit of a Master's degree in Economics was not an influencer in their career orientation. The learners have not realized their potential yet, due to which they are willing to take up any job, thus underutilizing their special skills learned after completing the Master's degree in Economics.

*Keywords*: distance learners, master's degree in economics, career awareness, factor analysis, cluster analysis, SPSS

## 1. Introduction

Distance education places the learner and the teacher at a distance, in terms of both space and time (Perraton, 1988). It is the quasi-permanent separation of teacher and learner (Keegan, 1996). It comes to the aid of those who lack access to the formal education due to different reasons, say being employed, taking care of the elderly or kids, not having the eligibility to seek admission in regular mode, etc. Students pursuing post secondary education through distance mode tend to be older, females and with huge household or work related responsibilities (Halsne & Gatta, 2002; Ross & Powell, 1990; Rovai, 2002; Sikora & Carroll, 2002). But in recent years, the profile of distance learners has significantly changed. Most of them are young, freshers (with no gap in studies), meritorious and are resorting to

distance mode by choice. As attending classes is optional in distance mode, they are able to save time to prepare for competitive exams. Time management issue continues to be a dominant factor affecting students' enrolment in distance education programmes, which has been highlighted in studies based on their self-regulation and higher retention rates (Bradley et al., 2017; Peck et al., 2018). Over the years, it has been possible to reach out to more and more learners through print, radio, or television media (Perraton, 1988). Thus, the desire to learn and the presence of different means of communication have granted popularity to this mode of education (Garrison, 2000). Technological improvements have made distance education more flexible for "time bound" or "place bound" students (Zirkle, 2003).

## 2. Theoretical framework

### 2.1 *Choice of a subject at PG level*

For many Indian students, pursuing a PG course is considered important for meeting the challenges associated with their jobs. In a survey, it was felt by a few undergraduate students that they won't join the labour market till the completion of a PG degree, even if they shall be offered a job. PG course enables the acquisition of knowledge and skills required for problem-solving. Many students, earlier recruited as teachers shared that they quit their jobs to get a PG degree for the reasons mentioned above (Raman, 2014).

Different factors have been identified for students' choice of specific subjects for higher education. An important factor is better employability (Pasternak, 2005). Pasternak attributed it to four reasons i.e. convenience, admittance requirements, reputation and interest. It has also been ascribed to the rational behaviour of the students as utility maximising consumers (Smyth & Banks, 2012). However, there are studies challenging cost-benefit analysis as the only (Fredman, 2014; Obermeit, 2012) criterion. Other factors include future security (Kember et al., 2008) or fulfilment of future needs (Hermansson, 2005; Brandell, 2001; Mac SÍthigh, 2006). Students are also influenced by the interest in a particular field (Jacobsson & Gillstrom, 2007), while at times they pursue higher studies, as there is no alternative (Brandell, 2001). While pursuing higher education, students expect their institutions to provide support and guidance regarding a better future (Kandiko & Mawer, 2013). They are also influenced by their family and institutions in the decision-making about PG Education (Liu & Morgan, 2016).

A few studies have been focused on students of Economics. Willis and Pieper (1996) explored whether future expected earnings and job prospects motivate students to study Economics. Further, scholars have also tried to compare it to other majors. There are majors focusing on specific or general knowledge, with the latter having a wide range (Borden & Rajecki, 2000). While highlighting a few basic proficiencies associated with Economics, Hansen (1986, 2001) categorised it into general knowledge or 'liberal arts degree'. The students of Economics are known to have developed 'critical thinking skills' (Borg & Stranahan, 2010), which increases the probability of their being absorbed in many careers, as compared to those having majored in other subjects. Economics majors earned 13% more than other social science majors and 11% more than business administration majors. Likewise, Education, humanities, and arts majors earned considerably less than Economics majors. The earnings of Economics majors were similar to those of "hard science" majors such as Chemistry, Math, and Physics (Black et al., 2003). However, except for limited literature available in this regard, there is still a dearth of studies on particular subjects chosen by students at the PG level, except a few on medical students (e.g. Chawla et al., 2018).

### 2.2 *Career choice, awareness and related issues*

Career choice is a portrayal of oneself in the world of work having identified the specific occupation that one could perform best in relation to one's existing personality traits. It involves the person's creation of a career pattern, decision-making style, integration of life roles, values expression, and life-role self-concepts (Herr & Cramer, 1996). People choose a career in which they find their skills and abilities to be better utilised, that suits their personality characteristics and background variables (Holland, 1997). Different career interests shown by people show individual differences in personality and behaviour (Spokane, 1996). Career planning promotes confidence building and self-development (Dik et al., 2008; Hall et al., 2004). It is the initial stage of a person's successful search for a job (Folsom & Reardon, 2003; Fondas & Stewart, 1994; Swain, 1984). Career guidance at an early (preferably, school) stage gives direction to

the students in their pursuit of a career later in life. Providing them with the essential awareness, knowledge and skills (Herr et al., 2004), helps them decide whether a particular occupation suits their interests and abilities or not. It leads to better self-understanding (Hiebert et al., 2001). The Science career-related instruction given at the school level promotes interest in Science and improves students' learning abilities (Salonen et al., 2018). This occupational orientation enables them to understand the realities of the labour market and develop an occupational preference (Super et al., 1996). However, if they get no orientation or get it at a later stage, it may not prove beneficial to that extent. Transition enhancement assistance facilitates further education, training or employment of students (Baker, 2000). Apart from career information provided by experts in vocational guidance (Manuel & Asuquo, 2009), the role of career exploration can't be either underestimated. It means that one should keep exploring till the desired goal is achieved. Scholars (Holland, 1992; Parsons, 1909) have acknowledged its significance in career development. Super (1990) has considered the age of 14-25 years crucial for developing, planning and solidifying vocational goals.

Career awareness regarding the course/subject opted for higher education is very important. Many a time, students enrolled in a course are not aware of its career prospects (Webber & Mearman, 2012). It has been established through studies that students pursuing IT courses at the university level are sometimes not aware of career opportunities in the field (Calitz et al., 2011; Steed, 2018). In India, despite having educated people, there exists a huge gap between their qualifications and the requirements of labour market. Lack of awareness has been highlighted by many scholars (Srivastava, 2014; Thomas et al., 2013).

Though the aforementioned studies have been done on different dimensions of career, scant literature exists with regard to career awareness of PG Economics students in general and in distance education in particular. Thus, this paper attempts to address the existing gap in the literature.

# 3. Objectives

## 3.1 *The proposed study aims to fulfil the following objectives*

1. To explore the factors affecting the career awareness of distance learners of MA Economics.

2. To cluster these learners into different groups, based on their perception/awareness regarding the career prospects of a Master's degree in Economics.

The following Table 1 and Figure 1 depict a brief demographic profile of the respondents.
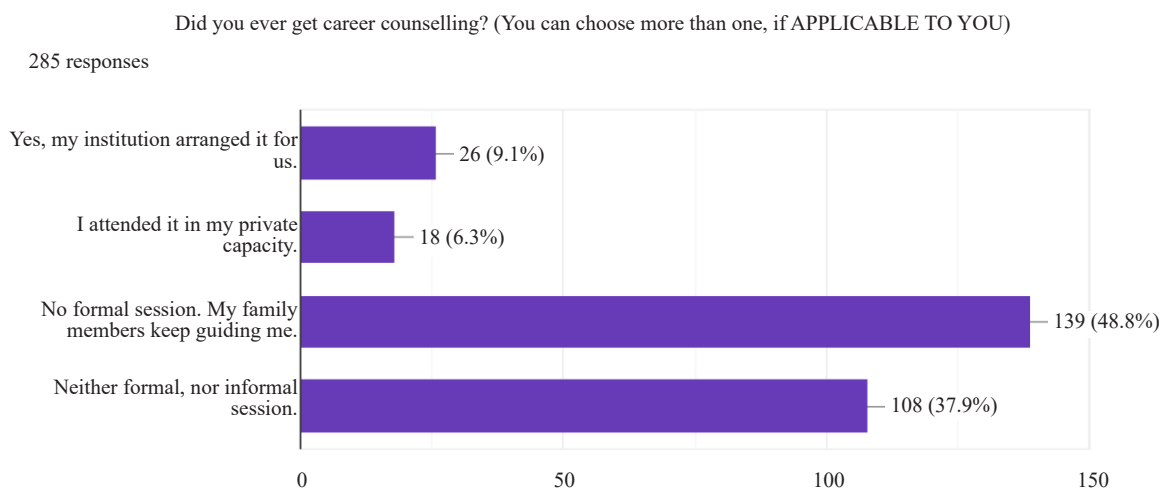


Did you ever get career counselling? (You can choose more than one, if APPLICABLE TO YOU)

285 responses

**Figure 1.** Responses of the learners regarding career counselling

| S. No. | Variable | Coding | | No. of respondents | Percentage (%) |
|---|---|---|---|---|---|
| 1 | Age (in years) | 20-25 | 1 | 260 | 91.2% |
| | | 25-30 | 2 | 22 | 7.7% |
| | | >30 | 3 | 3 | 1.1% |
| 2 | Semester | 1st | 1 | 149 | 52.3% |
| | | 3rd | 2 | 136 | 47.7% |
| 3 | Gender | Female | 1 | 217 | 76.1% |
| | | Male | 2 | 68 | 23.9% |
| 4 | Marital status | Unmarried | 1 | 257 | 90.2% |
| | | Married | 2 | 28 | 9.8% |
| 5 | Employment status | Unemployed | 1 | 249 | 87.3% |
| | | Employed in private sector | 2 | 16 | 5.6% |
| | | Employed in govt. sector | 3 | 3 | 1.1% |
| | | Self-employed | 4 | 17 | 6% |
| 6 | Reason for pursuing Master's Degree from Distance mode | There is no special reason for it. | 1 | 62 | 21.8% |
| | | I was preparing for competitive exams. I needed more time. Hence I took admission here by choice. | 2 | 134 | 47% |
| | | I was not eligible for admission in formal system. | 3 | 14 | 4.9% |
| | | I was eligible for formal system, but the last date was over. | 4 | 10 | 3.5% |
| | | Due to reasons not mentioned above. | 5 | 65 | 22.8% |
| 7 | Basic educational qualification | BA with Economics | 1 | 216 | 75.8% |
| | | BA without Economics | 2 | 18 | 6.3% |
| | | B.Sc | 3 | 31 | 10.9% |
| | | B.Com | 4 | 7 | 2.5% |
| | | BBA | 5 | 3 | 1.1% |
| | | BCA | 6 | 1 | 0.4% |
| | | Others | 7 | 9 | 3.2% |
| 8 | Preference for any particular job (please tick the sector you would like to join first, if given a chance) | Defence | 1 | 17 | 6% |
| | | Education | 2 | 64 | 22.5% |
| | | Banking | 3 | 75 | 26.3% |
| | | Administration | 4 | 31 | 10.9% |
| | | Police | 5 | 12 | 4.2% |
| | | Indian Economic Services | 6 | 22 | 7.7% |
| | | Any job | 7 | 47 | 16.5% |
| | | Not decided yet | 8 | 9 | 3.2% |

## 4. Research methodology

### 4.1 *Population and sample*

The target population consists of all the PG students enrolled at the Directorate of Distance Education (DDE), University of Jammu. About 7,000 students are currently pursuing their PG courses from DDE. A purposive sample of 285 MA Economics students has been taken. The sample size was found enough for carrying out factor analysis (e.g., Awang, 2014, 2015; Comrey & Lee, 1992; Hair et al., 2010).

### 4.2 *Data collection*

Data has been collected through a self-designed questionnaire prepared on a five-point Likert scale (1 means 'Strongly disagree', while 5 means 'Strongly agree'). Items have been chosen on the basis of the studies reviewed. In the original questionnaire, there were 18 items.

### 4.3 *Data analysis*

SPSS software has been used for data analysis.

### 4.4 *Techniques used*

To fulfil the objectives of the study, the two techniques, Exploratory Factor Analysis (EFA) and Cluster analysis have been used respectively.

## 5. Factor analysis

Factor analysis was run to reduce the data and extract factors. The original pool of items was 18. Reliability and validity were tested to validate the scale. The initial results of factor analysis indicate whether or not it is suitable for further analysis. KMO should have a value of more than 0.5. The closer it is to 1, the better it is. Bartlett's Test of sphericity, which tests the null hypothesis of the identity matrix i.e. zero correlation between variables should have a significance value <0.05 to move ahead. Preliminary results (KMO, 0.676 & sig. 0.000) were found satisfactory for carrying out further analysis. Further, a reliability test was conducted. Cronbach alpha's value increased from 0.765 (with 18 items) to 0.804 with the deletion of three items, as was indicated by the Item-Reliability Statistics table. Thus, three items were deleted. Usually, 0.6 or 0.7 is considered as an acceptable value (e.g van Griethuijsen et al., 2015) of Cronbach alpha. The commonality is the variance in the observed variables which are accounted for by a common factor or common variance (Child, 2006). All the items except item 11 (0.303) were found to have adequate value and fitted well.

The rotated component matrix (displayed in Table 2) shows the loading of items on different components. Two items were loaded on more than one component, but higher loading was considered. Item 11 didn't load significantly on any component. Hence it was dropped from the main analysis. The Principle Component Analysis thus resulted in a five-component structure (with Eigenvalue of more than one and suppression of factor loading <0.5) accounting for a cumulative variance of 54.939%. Component 1, which explained 17.59% of the variance comprised three items, with factor loadings ranging from 0.757 to 0.575; Component 2 contributed 12.13% to the overall variance explained, with three items loading on it significantly, ranging from 0.708 to 0.598; Component 3, 4 and 5 accounted for 9.02%, 8.58% and 7.61% of the variance respectively.

### 5.1 *Interpretation of factors*

The five-factor structure depicted in Table 3 shows that the factor that influences the distance learners of Economics the most with regard to their choice of career is the 'subject-related awareness', with a mean score of 3.82. It means that the general tendency of the learners is to agree to the items included. Thus, they were mindful of the potential or

employability prospects of choosing Economics at the Master's level, before getting enrolled in it. In factor 2 'Perceived Poor job prospects', the mean score is 4.0515. Thus, most of them also recognize that due to their lack of capability or opacity in the selection process, they are not hopeful of getting a good job. In factor 3 'Sources of motivation', the mean score is 2.85. They moderately agree to the items asked or stay neutral regarding the sources of motivation. In factor 4, 'Factor related to academics and early job requirement', they tend to moderately disagree (Mean score is 3.03). In factor 5, 'Inclination towards competitive exams', they tend to agree.

**Table 2.** Rotated component matrix

| Item | Component | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| I am aware of the career opportunities for MA Economics students. | 0.757 | | | | |
| I chose this subject, as I knew it offers better job prospects. | 0.739 | | | | |
| I devote a fixed number of hours to my subject related studies. | 0.575 | | | | |
| There are so many instances of unfair selection that I feel I may not get a job. | | 0.708 | | | |
| I don't hope of getting a good job, as I am not capable of that. | | 0.653 | | | |
| One can think of career only when basic qualification is over. | | 0.598 | | | |
| My family's expectations from me compel me to work hard for achieving my goal. | | | 0.739 | | |
| One should have a check list of goals to be achieved on daily basis. | | | 0.635 | | |
| I am a self motivated person. | 0.413 | | 0.559 | | |
| One can get good marks in academics by studying for few days before the exams. | | | | 0.712 | |
| I want a job as soon as possible irrespective of salary offered. | | | | 0.577 | |
| Those studying for academics and competitive exams simultaneously don't achieve anything in life. | | 0.419 | | 0.562 | |
| I want a good job, even if it is delayed. | | | | | |
| I devote proportionately more time to preparation for competitive exams. | | | | | 0.737 |
| I devote a fixed number of hours to my competitive studies. | | | | | 0.710 |

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 10 iterations.

# 6. Cluster analysis

Cluster analysis means to classify elements into different groups, to have 'clusters' or 'sub-sets' that are homogeneous within but there is a presence of heterogeneity or dissimilarity between the clusters (e.g. Bacher et al., 2002). It was used as a technique as early as 1963 (Sokal & Sneath, 1963). It finds application in diverse fields. It has been relied upon for the segmentation of the market into different sub-markets (Kotler, 2004; Kotler & Keller, 2005; Salami & Adewoye, 2006). Segmentation and targeting help in better planning, developing and delivering (Pickton & Broderick, 2005). The various factors that can be used to distinguish the sub-markets are psychographic, demographic, geographic, psychological, behavioural, etc. (Gunter & Furnham, 1992). Apart from its increased adoption by marketers,

it finds application in the field of education. It has been used to group students on the basis of open-ended questionnaires (Fazio et al., 2012; Fazio et al., 2013; Springuel et al., 2007) or multiple-choice tests (Ding & Beichner, 2009). These scholars have found it a useful technique to identify the differences and similarities among students. Borden (1995) segmented university students on the basis of demographic variables, while Morrison et al. (2003) used it to group marketing students as per their learning styles; Duff (2004) classified them on the basis of their learning effectiveness. Cluster analysis is of great utility in distance education, as the learners have diverse profiles. There may be over-aged learners (Sujatha, 2002) who couldn't take benefit of formal education. There are freshers, dropouts from the formal system, rural and urban learners, those preparing for competitive exams, those with different statuses of employment, etc. Their possessing different characteristics necessitates the need for segmenting them into groups so that while evaluating their perception regarding a certain issue, their needs can be understood and proper corrective action can be taken. Thus, it has been used by different scholars in distance education to analyse distance learners (Saxena et al., 2004), to explore the factors of their satisfaction with a distance education course (Agyapong, 2021; Ozyurt, 2014) to determine their dropout rate etc. (Desjardins et al., 2021).

**Table 3.** Detailed list of factors extracted

| Factor/component | Name of the factor | Items loaded | | Mean score of the items/factors extracted | |
|---|---|---|---|---|---|
| FF1 | Subject related awareness | CS1 | I am aware of the career opportunities for MA Economics students. | 3.73 | 3.8211 |
| | | CS2 | I chose this subject, as I knew it offers better job prospects. | 3.96 | |
| | | CS3 | I devote a fixed number of hours to my subject related studies. | 3.78 | |
| FF2 | Perceived Poor job prospects | CS13 | There are so many instances of unfair selection that I feel I may not get a job. | 2.98 | 4.0515 |
| | | CS12 | I don't hope of getting a good job, as I am not capable of that. | 2.07 | |
| | | CS5 | One can think of career only when basic qualification is over. | 3.51 | |
| FF3 | Sources of motivation | CS14 | My family's expectations from me compel me to work hard for achieving my goal. | 4.20 | 2.8515 |
| | | CS7 | One should have a check list of goals to be achieved on daily basis. | 3.86 | |
| | | CS15 | I am a self motivated person. | 4.09 | |
| FF4 | Factor related to academics and early job requirement | CS8 | One can get good marks in academics by studying for few days before the exams. | 3.03 | 3.0398 |
| | | CS10 | I want a job as soon as possible irrespective of salary offered. | 3.68 | |
| | | CS6 | Those studying for academics and competitive exams simultaneously don't achieve anything in life. | 2.41 | |
| FF5 | Inclination towards competitive exams | CS9 | I devote proportionately more time to preparation for competitive exams. | 3.63 | 3.7193 |
| | | CS4 | I devote a fixed number of hours to my competitive studies. | 3.81 | |

**Table 4.** No. of cases in each cluster

| Cluster | | Valid |
|---|---|---|
| 1 | 2 | |
| 149.000 | 136.000 | 285.000 |

Two clusters have emerged, as depicted in Table 4, with 52.28 % and 47.71% of the cases respectively. Initially, different possibilities were explored regarding the probable no. of clusters till the desired number was obtained.

**Table 5.** Final cluster centers

| Item | Cluster | |
|---|:---:|:---:|
| | 1 | 2 |
| I am aware of the career opportunities for MA Economics students. | 4 | 4 |
| I chose this subject, as I knew it offers better job prospects. | 4 | 4 |
| I devote a fixed number of hours to my subject related studies. | 4 | 4 |
| I devote a fixed number of hours to my competitive studies. | 4 | 4 |
| One can think of career only when basic qualification is over. | 3 | 4 |
| Those studying for academics and competitive exams simultaneously don't achieve anything in life. | 2 | 3 |
| One should have a check list of goals to be achieved on daily basis. | 4 | 4 |
| One can get good marks in academics by studying for few days before the exams. | 3 | 3 |
| I devote proportionately more time to preparation for competitive exams. | 4 | 4 |
| I want a job as soon as possible irrespective of salary offered. | 3 | 4 |
| I don't hope of getting a good job, as I am not capable of that. | 2 | 2 |
| There are so many instances of unfair selection that I feel I may not get a job. | 2 | 4 |
| My family's expectations from me compel me to work hard for achieving my goal. | 4 | 4 |
| I am a self-motivated person. | 4 | 4 |

This paper builds on a few earlier studies (e.g. Saha & Kumar, 2016; Sharma & Chander, 2007) to perform the psychographic segmentation of respondents. Here, the distance learners are the respondents of the study. For this purpose, K-means cluster analysis has been used. As depicted in Table 5, for each item, there is a mean score within each cluster. As discussed by Sharma and Chander (2007), on the basis of some homogeneity in their psychographic attributes, the respondents can be classified into different segments. Here, the distance learners of MA Economics have been grouped into two segments. The first segment is of learners who were aware of the career opportunities available in this subject before getting enrolled and follow a fixed schedule in studies, both related to the subject and competitive, though the inclination is more towards competitive exams. They believe in having a checklist of goals to be achieved so that one can pursue them sincerely. They are self-motivated individuals, though their families' expectations to act as a driving force. However, they are indifferent to the items whether one should think of a career only after the basic qualification is over, one should study for academic exams only a few days before the due date and desire a job as soon as possible, whatever the salary. These learners don't agree that one can't study for academics and competitive exams simultaneously. Also, they are hopeful of getting good jobs, as they believe in their capabilities and trust the selection process to be fair. So, on the basis of the above attributes, the learners of this segment can be named 'optimistic' or 'highly motivated' learners. The learners of the second segment behave similarly in certain aspects. However, they agree that fulfilling basic qualifications is a prerequisite for one to pursue a goal related to a career seriously. They are neutral towards the item that 'those who study for academics and competitive simultaneously can't achieve anything in life'. They want an early job, irrespective of the salary offered. They lack trust in the selection process. Since in the rest of the items, they perceive similar to that of learners from segment 1, they can be classified as 'moderately motivated learners'

or pessimistic learners. They are not ambitious to get a good profile job, which might be due to their socio-economic background, lack of career counselling, or other such factors.

**Table 6.** ANOVA

| Item | Cluster | | Error | | F | Sig. |
|---|---|---|---|---|---|---|
| | Mean Square | df | Mean Square | df | | |
| I am aware of the career opportunities for MA Economics students. | 1.771 | 1 | 0.554 | 283 | 3.194 | 0.075 |
| I chose this subject, as I knew it offers better job prospects. | 1.618 | 1 | 0.487 | 283 | 3.321 | 0.069 |
| I devote a fixed number of hours to my subject related studies. | 0.702 | 1 | 0.524 | 283 | 1.338 | 0.248 |
| I devote a fixed number of hours to my competitive studies. | 0.043 | 1 | 0.651 | 283 | 0.066 | 0.797 |
| One can think of career only when basic qualification is over. | 13.805 | 1 | 0.888 | 283 | 15.540 | 0.000 |
| Those studying for academics and competitive exams simultaneously don't achieve anything in life. | 125.986 | 1 | 0.717 | 283 | 175.808 | 0.000 |
| One should have a check list of goals to be achieved on daily basis. | 0.606 | 1 | 0.496 | 283 | 1.221 | 0.270 |
| One can get good marks in academics by studying for few days before the exams. | 54.382 | 1 | 0.973 | 283 | 55.884 | 0.000 |
| I devote proportionately more time to preparation for competitive exams. | 4.610 | 1 | 0.600 | 283 | 7.688 | 0.006 |
| I want a job as soon as possible irrespective of salary offered. | 23.582 | 1 | 0.756 | 283 | 31.185 | 0.000 |
| I don't hope of getting a good job, as I am not capable of that. | 47.204 | 1 | 0.652 | 283 | 72.393 | 0.000 |
| There are so many instances of unfair selection that I feel I may not get a job. | 84.126 | 1 | 0.787 | 283 | 106.904 | 0.000 |
| My family's expectations from me compel me to work hard for achieving my goal. | 2.496 | 1 | 0.487 | 283 | 5.131 | 0.024 |
| I am a self motivated person. | 0.011 | 1 | 0.524 | 283 | 0.021 | 0.885 |

The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

The F values in the ANOVA table (Table 6) show how well a variable differentiates between clusters (Dikmen et al., 2009). As depicted in the ANOVA table, on the basis of F values, the item 'Those studying for academics and competitive exams simultaneously don't achieve anything in life' is the most influential in forming the clusters, followed by 'There are so many instances of unfair selection that I feel I may not get a job' and 'I don't hope of getting a good job, as I am not capable of that'. The other significant contributors to the clustering of learners into two groups are: 'One can get good marks in academics by studying for few days before the exams', 'One can think of a career only when basic qualification is over' and 'I want a job as soon as possible irrespective of salary offered'. So, out of total of fourteen items, only six are the differentiating factors. Further, one-way ANOVA was run for demographic variables, to know whether any such factor influences the formation of clusters. But none of them was found significant.

# 7. Conclusion

The results of factor analysis show that the learners were aware of the career opportunities available to MA Economics students. Their awareness has emerged as the most significant factor. This is contrary to a few earlier studies, in which a lack of awareness has been underlined (Calitz et al., 2011; Srivastava, 2014; Steed, 2018; Thomas et al., 2013; Webber & Mearman, 2012). However, the results also show that despite opting for this subject by choice, they show 'Perceived Poor job prospects'. The perceived employability is the self-perceived ability and possibility to attain sustainable employment appropriate to one's qualifications (Rothwell et al., 2008; Vanhercke et al., 2014). Both personal and environmental factors influence the appraisal of the employment capacity of a person (Rothwell et al., 2008). It plays a significant role in shaping one's understanding of labour market and reflects confidence and control over the environment surrounding the labour market (Fugate et al., 2004; Rodrigues et al., 2019). Those with better-perceived employability have a better coping mechanism to handle career challenges (Gunawan et al., 2021; Harrison et al., 2021; Zakkariya et al., 2021). The poorly perceived employability of the respondents is primarily due to a lack of confidence in their capabilities as well as a lack of trust in the fairness of the selection process. They have agreed moderately to the sources of motivation. Items related to the 'role of the family' and 'being a self-motivated person' have the highest mean scores (levels of agreement). Motivation helps in setting goals and focusing on them (Eccles & Wigfield, 2002). As children grow older, they tend to be self-regulated (Damon et al., 2003). But extrinsic motivation (Ryan & Deci, 2000) also has a role in this regard.

On the basis of cluster analysis, it can be interpreted that the item 'Those studying for academics and competitive exams simultaneously don't achieve anything in life' is the most influential in forming the clusters, followed by 'There are so many instances of unfair selection that I feel I may not get a job' and 'I don't hope of getting a good job, as I am not capable of that'. The other significant contributors to the clustering of learners into two groups are: 'One can get good marks in academics by studying for few days before the exams', 'One can think of a career only when basic qualification is over' and 'I want a job as soon as possible irrespective of salary offered'. None of the demographic variables influenced the segmentation of learners into groups.

# 8. Implications of the study

The findings of the study hold great significance. As we have segmented the learners into highly motivated and moderately motivated groups, there is a need to look at the additional attributes of the learners apart from their responses to the items asked. A look at the socio-economic profile shows that about 37.9% of learners didn't have any kind of exposure to career counselling (formal or informal). The Indian labour market has been facing a serious problem of a job-qualification mismatch for the past few decades. Lack of vocational guidance is one of the factors, to which it can be attributed. 14-25 years of one's life are crucial in determining and strengthening career goals (Super, 1990). But in a recent survey in India of students of this age group, 93% of the respondents were aware of just seven of the 250 career options (Chakrabarthy, 2019). It can be attributed to a lack of counselling. Counselling gap in India has been highlighted in a recent study by Pradeep et al. (2020). Occupational orientation helps in a better understanding of the labour market (Super et al., 1996). Thus, there is a need for early counselling for these students so that awareness can be generated regarding the subjects chosen by them at the undergraduate or postgraduate level. Since the focus of this paper was on a Master's in Economics, it can be concluded that they were not provided with any kind of support system (career counselling), whether at the UG level or the PG level. With whatever little knowledge they had of the subject, they got enrolled in the course. As the bulk of them (75.8%) were having a background in Economics at the UG level, this might have motivated them to pursue a Master's in Economics.

Further, the learners have shown a high level of agreement to the item 'I want an early job, irrespective of the salary offered'. This implies that the job is a priority for them, not the type of job. Thus, they lack career exploration. They don't want to explore more options till they reach the final destination. Many Scholars (Holland, 1992; Parsons, 1909) have recognised the role played by it in career development.

Besides, their job preferences for the banking sector (26.3%), education sector (22.5%), or acceptance of any job (16.5%) show that their pursuit of the Master's degree in Economics was not an influencer in their career orientation

and they perceive it the way any other Master's degree student does it. The very fact that only 7.7% of them showed a preference for Indian Economic Services means that either they are unaware of it or incapable of cracking the examination. An understanding of the results of factor analysis and cluster analysis also highlights the role of a lack of confidence in their capabilities, which needs to be reversed to improve their employability prospects. Few earlier studies show that those who do a Master's in Economics have an earning potential better than many other social science subjects (Black et al., 2003; Borg & Stranahan, 2010). The learners who form the sample of the current study have not yet realized their potential, due to which they are willing to take up any job, thus underutilizing their special skills learned after completing the Master's degree in Economics.

## Conflicts of interest

There is no conflict of interest.

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