

Individual resilience and academic achievements: a soft traits approach to craft universities' placement and facilitate firms' onboarding

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Abstract

Purpose – Frequently the universities' Placement Service is based on the student's hard profile at the expense of soft traits. On the other side, the "person–organization fit" axiom suggests firms are looking for profiles with specific soft skills to face the increasing level of environmental turbulence. This research aims to understand if high-resilience students also have high academic achievements and how the three components of resilience (emotional intelligence, positive thinking, planfulness) can have different impact on individual performances.

Design/methodology/approach – The research was conducted on students enrolled on different courses of studies and years in an Economics and Law faculty. A questionnaire was administered during the first exam session (ante-Covid) and the second and third exam sessions (post-Covid). This questionnaire consists of 84 questions related to planfulness, emotional intelligence and positive thinking, whose combination can be considered a measure of resilience. In fact, the Principal Component Analysis (PCA) was carried to identify these three new variables (the components) based on the 84 initial ones. Finally, an ordered logit model was implemented to verify whether, and in what direction, planfulness, emotional intelligence, positive thinking and Covid 19 (the independent variables) affected the students' performance (the dependent one).

Findings – While planfulness positively affected academic performance, emotional intelligence affected it negatively. The impact of positive thinking and Covid was not significant, and thus what emerged from the preliminary analysis of the grades is not confirmed.

Research limitations/implications – This is a case study of a university experience that is paying great care in preparing students to satisfy the firms' work demands. To confirm and refine results the sample will be expanded to other faculties and other life/soft skills will be investigated.

Practical implications – This soft trait approach—that studies how various measures of soft skills are related to course grades—has a two-fold significance by crafting universities' placement activities and facilitating firms' onboarding.

Social implications – This is a case study of a university experience; a university that is paying great attention to preparing students ready to satisfy the firms' work demands but also citizens capable of supporting the growth of their nation and society in general.

Originality/value – The research can be considered a first step towards the inclusion of the formal evaluation of the students' life skills in their academic path, creating a link with their achievements.

Keywords Academic achievements, Onboarding, Placement, Resilience

Paper type Case study

1. Addressing the issue

Given uncertain times, the concept of resilience is receiving increasing attention in both social and economic issues. For instance, a review of the higher education literature has highlighted

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the key role played by resilience for students engaged in completing their studies (Ayala and Manzano, 2018; Brewer *et al.*, 2019; McCray and Joseph-Richard, 2020). In the pandemic period, resilience is proved to be crucial for university students to identify an effective and timely response to the change in teaching (intended as a way of both enjoying lectures and successfully taking exams) imposed by the health emergency. Concerning this aspect, students experienced an overload of stress and faced considerable difficulties in coping with their educational sphere without delays or hitches (You, 2018). Individual resilience came into play in that loosely viewed as a set of traits associated with an individual's ability to recover from adversity, and actively align in the face of adversity/stress (Giustiniano and Cantoni, 2017).

In this regard, given the turbulence and discontinuity of markets and the uncertain scenarios, firms are looking for profiles with soft characteristics in line with the ability to react promptly and effectively to environmental shocks and capable of bearing significant stress loads related to the dynamics of change, that is person–organization fit (Bardoel *et al.*, 2014). A constantly changing workplace is the norm for many businesses, and research has confirmed that employees play an important role in addressing changes (Shin *et al.*, 2012). Tugade and Fredrickson (2004) argue that resilient individuals are better equipped to cope with a constantly changing workplace. The person–organisation fit benefits both the person and the organization in terms of high quality of work and increases productivity efficient collaboration amongst team members, improves employee retention, increases levels of engagement, contribution and creativity from employees (Kristof, 1996; Donald *et al.*, 2017).

It is crucial to note that the characteristics of the disturbances connected to the propagation of COVID 19 greatly impact the notion of resilience employed in this work. Therefore, it would be very reductive to discuss a resilient approach in a broad, mainstream sense without considering the nature of the exogenous jolt (Briguglio *et al.*, 2009). Since infections were ongoing, progressing and out of control, we took into account the resilient strategy produced by a continuous exogenous shock in our study. The oddity is that it was very challenging to recognize a homeostatic state since as soon as a balance was found—both in terms of robust response—it was abruptly upset by a fresh wave of infection. University students found it particularly challenging to pinpoint a linear and consistent behavior to deal with challenges due to these manifestation features.

In this research, individual resilience is composed of three traits, considered as fundamental for the construction of a rebooting response in the face of the disturbances: emotional intelligence, positive thinking and planfulness. Whereas hard skills can typically be easily proven by the grades achieved, there is no record related to the portfolio of soft skills developed throughout the course of study. This paper aims to understand how these three components impact on academic achievements to have “hard evidence on soft skills”. This evidence would allow the student to build up not only a technical but also a soft profile formalized in a written track that would hopefully support Universities' placement and facilitate firms' onboarding. Indeed, one of the universally acknowledged limitations of the educational system is that it is predominantly focused on the transmission of technical and specialized skills, often underestimating the value of soft skills. It is necessary to point out that instilling soft skills into the lives of future generation is aimed at developing their knowledge, understanding, values and skills which are the essence of education for sustainable development (Salih, 2008). In fact, the combination of hard and soft skills represents the overall skill set that drives the individual in her/his personal and professional growth (Tomlinson, 2008, 2010, 2017).

2. Unpacking individual resilience

According to logic, common sense and multi-year experience developed in academic teaching, the combination of emotional intelligence, positive thinking and planfulness is viewed as essential to helping students manage academic demands, enable positive progress and cope

with the pressure of study, work and life. During a stressful period, like the COVID 19 pandemic and the consequent lockdowns, an extra effort was required by university students to maintain the pace and quality of their academic path, and recover effectively and positively from the shock associated with abrupt changes in class attendance methods (from remotely recorded to livestreaming lectures), frequency of interaction with teachers and methods for taking exams remotely.

For these reasons, and for the purposes of this research, students are supposed to have demonstrated a resilient spirit and behavior, where resilience is considered as a multidimensional and dynamic construct (Giustiniano and Cantoni, 2017), mainly composed of the three traits: emotional intelligence, positive thinking and planfulness.

From the analysis, it can be deduced that while the role of emotional intelligence and positive thinking in relation to resilience have, even recently, been widely investigated (Armstrong *et al.*, 2011; Cejudo *et al.*, 2016; Belykh, 2019; Chen, 2019; Trigueros *et al.*, 2019; Thomas and Zolkoski, 2020; Zhao *et al.*, 2020; Cerit and Şimşek, 2021; Cuartero and Tur, 2021; Rezaei *et al.*, 2021; Sk and Halder, 2021; Zheng *et al.*, 2021), to our knowledge, there are few studies that directly link planfulness – a process-focused trait of individual differences in goal achievement – with resilience. Specifically, no previous studies have been conducted on these three traits as constituents of individual resilience and their effects on academic achievements.

In the following subparagraphs the definitions of the three traits constituting resilience, and used in our research work, are shared.

2.1 University students' emotional intelligence

In this study, we refer to the definition of emotional intelligence given by Mayer and Salovey (1997) who describe it as: “*the ability to accurately perceive, appraise, and express emotions accurately; the ability to access and/or generate feelings that facilitate thinking; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions and promote emotional and intellectual development*” (Mayer and Salovey, 1997, p. 10).

One could consider it to be a personality trait or skill. In any case, it refers to a person's self-evaluation as regards her/his ability to understand and handle her/his own emotions and those of others. The four branches of Mayer and Salovey (1997)'s model are used. It relies on perception, facilitation, understanding and regulation of emotions:

- (1) Perception of emotions refers to the ability of the student to identify their own and other's emotions, as well as the ability to identify emotions in other stimuli;
- (2) Facilitation of emotions is related to the ability to use emotions to assist in certain cognitive enterprises, such as problem solving, interpersonal communication or reasoning;
- (3) Understanding of emotions involves the ability to analyse emotions;
- (4) Regulation of emotions involves the ability to modify an emotional response.

People showing an ability to perceive, assimilate and handle their own emotions and those of others tend to show high levels of resilience too, and they are more prepared to confront daily demands (Dhoopar *et al.*, 2021; Ristic and Hizarci-Payne, 2020; Haelermans and van der Eem, 2018). In this vein, some studies have found a significant positive association among emotional intelligence, resilience and academic results (Corcoran and O'Flaherty, 2018; Droppert *et al.*, 2019; Han, 2018; Yoo and Park, 2015).

2.2 University students' positive thinking

Positive thinking involves holding positive expectations for ones' future. It is a cognitive process that produces a bright outlook on life and promotes optimistic ideas (Seligman, 2011).

Several constructs have been used to explain the capacity of some individuals to maintain a positive outlook during negative life circumstances:

- (1) Optimism (defined as attributional style or as general positive expectancy, Carver and Scheier, 1991, 2001);
- (2) Extraversion (McCrae and Costa, 1986);
- (3) Hope (Snyder, 2000) and hardiness (Maddi and Kobasa, 1991).

All authors refer to general traits that are correlated with positive affect and promote positive thinking during difficult circumstances. A study by Tugade and Fredrickson (2004) predicts that resilient people use positive emotions to rebound from, and find positive meaning in, stressful encounters. In a stressful situation, like the pandemic and the lockdowns, a positive mindset is greatly challenged. This aspect concerns especially adolescent and emerging adults like university students, who live a time of uncertainty, confusion and stress and experience a period of fast development with pressure to obtain results (Salem and Karlin, 2021; Liu and Boyatzis, 2021). Covid-19 has made this period even more difficult. During the pandemic, students with an attitude towards positive thinking may have benefited from it with positive outcomes that, reducing depression and improving the quality of life (Lightsey and Boyraz, 2011), have strengthened their resilience, helping them to achieve their academic results more easily (Alkhatib, 2020).

2.3 University students' planfulness

Frese *et al.* (1987) described planfulness as a general tendency to plan before acting. In this work, planfulness is considered as a process-focused trait of individual differences in goal achievement (Ludwig *et al.*, 2018; Sellberg *et al.*, 2018). We propose that planfulness consists of three interrelated facets: **temporal orientation** to the future implications of present behavior, **mental flexibility** in contextualizing one's actions in terms of one's goals and **cognitive strategies** to anticipate and deal with potential obstacles.

Planfulness implies courage, perspective, self-regulation, orderliness, self-control, punctuality, dutifulness and intentionality in projecting the future (Park *et al.*, 2005).

To cope with the uncertainties generated by the pandemic period, the ability to look ahead (temporal orientation), make plans (mental flexibility) and change them on the go (cognitive strategies) are undoubtedly some traits that can support the achievement of results in terms of number of exams taken and grades achieved. In this direction, several studies show that negative emotions, depression symptoms and difficulties in emotion regulation were lower when planning was adopted (Sacchi and Dan-Glauser, 2021), while effects on resilience were positive and meaningful (Brewer *et al.*, 2019).

3. Aim of the research and methodology

Resilience has been widely recognized in the literature as being related to job readiness and a key graduate capability (Tomlinson, 2017). Some authors investigated the relationship between resilience, stress-coping strategies and learning approaches (Banerjee *et al.*, 2019; Baumgartner and Schneider, 2021), well-being and the role of self-efficacy, self-set goals and anxiety (Etherton *et al.*, 2020; Kotzé and Kleynhans, 2013) and self-doubt (Zhao *et al.*, 2021) to predict academic performance of undergraduate students.

However, little research has looked at whether there is a relationship between resilience and academic success (Çelik *et al.*, 2014; Mwangi *et al.*, 2015; Haibin, 2017; Marie *et al.*, 2021).

In line with the objective of our research, which is to understand if high-resilience students also have high academic achievements and how the three components can have different impact on individual performances, the following hypotheses will be examined.

H1. The three components of resilience influence academic achievements.

Several studies have linked resilience and academic performance. [Burgis-Kasthala et al. \(2019\)](#) predicted future performance in medical students through a longitudinal study examining the effects of resilience on low and higher performing students; [Ayala and Manzano \(2018\)](#) investigated the academic performance of first-year university students and the influence of resilience and engagement; [Choo and Prihadi \(2019\)](#) analysed academic resilience as a mediator of multidimensional perfectionism and academic performance among gen-Z undergraduate students; [Miraj et al. \(2021\)](#) studied how information-seeking behavior, essential technologies and resilience enhance the academic performance of students.

Our research was intent on verifying how the three components of resilience can influence academic achievements. Logically, we expected that:

H1.1. High positive thinking is the main component of any academic achievement

According to [Seligman \(2011\)](#), positive thinking involves holding positive expectations and promotes optimistic ideas.

H1.2. Students with high emotional intelligence are high-achievers

Being effective requires the ability to understand and handle own emotions and those of others ([Mayer and Salovey, 1997](#)).

H1.3. Students with high planfulness are high-achievers

Academic engagement requires orientation to goal achievement and to plan before acting ([Frese et al., 1987](#); [Trowler et al., 2021](#)).

To test our hypotheses, we defined the methodology in terms of participants, materials and procedures.

3.1 Participants

The sample used in this survey is composed of students from a faculty of Economics and Law. The respondents belong to different ethnic groups, come from different backgrounds and have pursued their higher education studies nationally and internationally. As far as the trade-off specificity-generalizability, the use of a specific sampling techniques and the sample size support the generalization of the results obtained.

The research was conducted on 290 students enrolled on different courses of studies and years in an Economics and Law faculty in Italy. As the study was exploratory in nature, we decided to send the questionnaire for completion to students in our classes whom we therefore meet on a weekly basis and to whom we explained the objectives of the research. We deliberately chose second-year undergraduate and graduate students to have their academic results available. Students enrolled in the first year were not considered as they were not engaged in taking exams during pandemic peaks (see [Table 1](#)).

Course of study	Year of attendance			Total
	2°	3°	4°	
Business Administration	109	14		123
Business Management	54			54
Law	0	0	7	7
Total	163	14	7	184

Table 1.
Course of study by
year and year of
attendance

Source(s): Authors' own work

The redemption rate was 57.5% (184 students), a significant percentage if we consider that students to whom the questionnaire was sent did not receive any response incentives but simply an invitation to collaborate through their institutional emails, preceded by a concise explanation on the general objectives of the research carried out by the teacher in the classroom.

In Italy, students can independently choose which session to take their exams during the academic year. At the faculty we analysed, three sessions were planned. As shown in Table 2, during the first session (ante-Covid), 169 students took at least one exam, and during the second and third sessions (post-Covid), 183 students took at least one exam.

Table 3 shows the students who took exams (1) either ante-Covid or post-Covid and (2) both ante-Covid and post-Covid.

3.2 Materials

The students answered a questionnaire of 84 items as a scale to measure resilience through the three components: 39 items referred to emotional intelligence (e.g. 'I know what to say to make people feel good'), 31 to positive thinking (e.g. 'I can find something of interest in any situation') and 14 to planfulness (e.g. 'I am always busy with something interesting'). Items were scored on a five-point Likert scale (1 for strongly disagree and 5 for strongly agree). Some of the items are reverse scored. The 84 items reflected the 24 strengths of character of the VIA Survey of Character Strengths Classification (Niemiec, 2019). The VIA Inventory of Strengths is a free, scientifically valid measurement tool that assesses the 24 strengths.

Soft skills are measured through subjective personal evaluations. This survey mode is validated by Wolf (1978) and Bommer *et al.* (1995) that demonstrated the interchangeability of objective and subjective measures of performance. As stated by Muckler and Seven (1992) "empirical examples taken from several domains related to human factors show instances in which self-report (subjective) measures may be essential" (pg. 441).

3.3 Procedures

The Principal Component Analysis (PCA), considering correlations among the variables, allows for the reduction of the number of independent variables studied (see Abdi and

Course of study	Exam session		Total
	First session: t = 0 (ante-Covid)	Second and third sessions: t = 1 (post-Covid)	
Business Administration	115	123	238
Business Management	47	53	100
Law	7	7	14
Total	169	183	352

Source(s): Authors' own work

Table 2.
Course of study and exam session

Course of study	Number of attendances			Total
	1 (either ante or post)		2 (both ante and post)	
	ante	post	ante or post	
Business Administration	0	8	8	115
Business Management	1	7	8	46
Law	0	0	0	7
Total	1	15	16	168

Source(s): Authors' own work

Table 3.
Course of study by number of attended sessions (Panel structure)

Williams, 2010). Thus, PCA was carried to identify the three variables, planfulness, emotional intelligence and positive thinking. Hence, the components planfulness, emotional intelligence and positive thinking were used in a cluster analysis to identify groups of students with the same level of resilience (see Makles, 2012). Finally, an ordered logit model was implemented to verify whether, and in what direction, planfulness, emotional intelligence, positive thinking and Covid affected the probability that the student had a high performance or not.

4. Results

The 84 items/variables are recoded using PCA. Out of the 14 items referring to planfulness, we consider 4 items; out of the 39 items referring to emotional intelligence, we consider 5 items; and out of the 31 items referring to positive thinking, we consider 5 items (see Table 4). Applying the Kaiser criterion (i.e. the extraction method is based on eigenvalues greater than (1), the PCA results in a three-component extraction: planfulness, emotional intelligence and positive thinking (see Table 4).

The value of the Kaiser–Meyer–Olkin (KMO) test for sampling adequacy is 0.7973 (see Table 4), which suggests that the data are appropriate ('middling' close to 'meritorious') for applying PCA [1].

The components planfulness, emotional intelligence and positive thinking are then used in a cluster analysis to identify the student type. As suggested by Makles (2012), to detect the optimal number of clusters k^* from the set of K solutions, (1) we use a scree plot and search for a kink in the curve generated from the within sum of squares (WSS) (see Figure 1(a)), and (2)

	Planfulness	Components Emotional intelligence	Positive thinking
<i>plan_01</i> : I only do my tasks just before they need to be done (<i>inverted Likert scale</i>)	0.7211	-0.0627	0.1126
<i>plan_03</i> : I can't wait to get started on a project	0.1639	-0.1388	0.2974
<i>plan_04</i> : I'm not good at figuring out what really matters (<i>inverted Likert scale</i>)	0.2857	0.1566	0.2546
<i>plan_10</i> : While others talk I prefer to act	0.0558	-0.0851	0.3710
<i>int_05</i> : I speak up in protest when I hear someone say mean things	-0.2331	0.4563	0.1680
<i>int_16</i> : I have a mature view on life	0.3529	0.2416	0.2268
<i>int_18</i> : I do not stand up for my beliefs (<i>inverted Likert scale</i>)	-0.2915	0.2530	0.2216
<i>int_26</i> : I have taken frequent stands in the face of strong opposition	0.0137	0.4579	0.1754
<i>int_27</i> : I know what to say to make people feel good	-0.0627	0.2726	0.2810
<i>think_04</i> : I look forward to each new day	-0.1318	-0.2609	0.3380
<i>think_05</i> : I find the world a very interesting place	-0.2360	-0.3216	0.3005
<i>think_10</i> : I prefer to participate fully rather than view life from the side-lines	-0.1394	0.0733	0.3043
<i>think_25</i> : I awaken with a sense of excitement about the day's possibilities	-0.0885	-0.3545	0.2535
<i>think_27</i> : I can hardly wait to see what life has in store for me in the years ahead	-0.0134	-0.1673	0.3106

Note(s): Total variance explained 47.69%; extraction method based on eigenvalues greater than 1 (Kaiser criterion); planfulness (1.1650), emotional intelligence (1.9520), positive thinking (3.5594); Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy 0.7973

Source(s): Authors' own work

Table 4.
PCA

we consider the proportional reduction of error (PRE) coefficient [2] (see Figure 1(b)). Both methods suggest that the optimal number of clusters is $k^* = 8$.

The characteristics of the eight clusters in terms of planfulness, emotional intelligence and positive thinking are reported in Table 5 and displayed in Figure 2.

Analyzing the average values of planfulness, emotional intelligence and positive thinking reported in Table 5, it is possible to state that students characterized by high planfulness (clusters 6, 7 and 8) do not have a high emotional intelligence, and students characterized by high emotional intelligence (cluster 5) do not have a high planfulness.

The next step is to analyse how planfulness, emotional intelligence and positive thinking affected students' academic performance. In fact, the dependent variable considered in the ordered logit model is the grading scale displayed in Table 6: 10% of students achieved the top-grade A, 40% grade B, 40% grade C and the last 10% the bottom grade D.

Students who achieved a low grade (D or C) in the ante-Covid session, tend to *increase* their grade in the post-Covid session (out of 17 students who got D in time = 0, 10 got C in time = 1; and out of 67 students who got C in time = 0, 27 got B in time = 1), students who achieved a high grade (B or A) in the ante-Covid session tend to *decrease* their grade in the post-Covid session (out of 63 students who got B in time = 0, 21 got C in time = 1; and out of 21 students who got A in time = 0, 12 got B in time = 1). Thus, Covid seems to have negatively affected students with high grades and positively affected students with low grades (see Table 7).

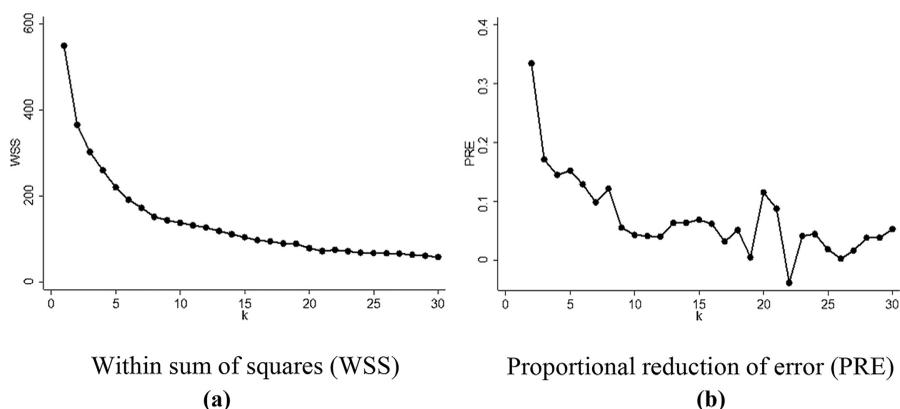


Figure 1.
Cluster analysis

Source(s): Authors' own work

#	L	Planfulness			Emotional intelligence			Positive thinking	
		L	M	H	L	M	H	L	H
1	17	-2.3116			-1.0910			-1.7684	
2	25	-0.7566				-0.6188			1.4133
3	29		-0.4942		-1.5731			-0.8317	
4	32		-0.3450			1.1281		-0.9600	
5	17		0.3468				2.2764		1.3556
6	10			0.8785	-0.8316			-3.5356	
7	26			0.9090	-0.6565				1.3013
8	28			1.6169		1.0793			1.0017

Source(s): Authors' own work

Table 5.
Cluster by PCA:
average values

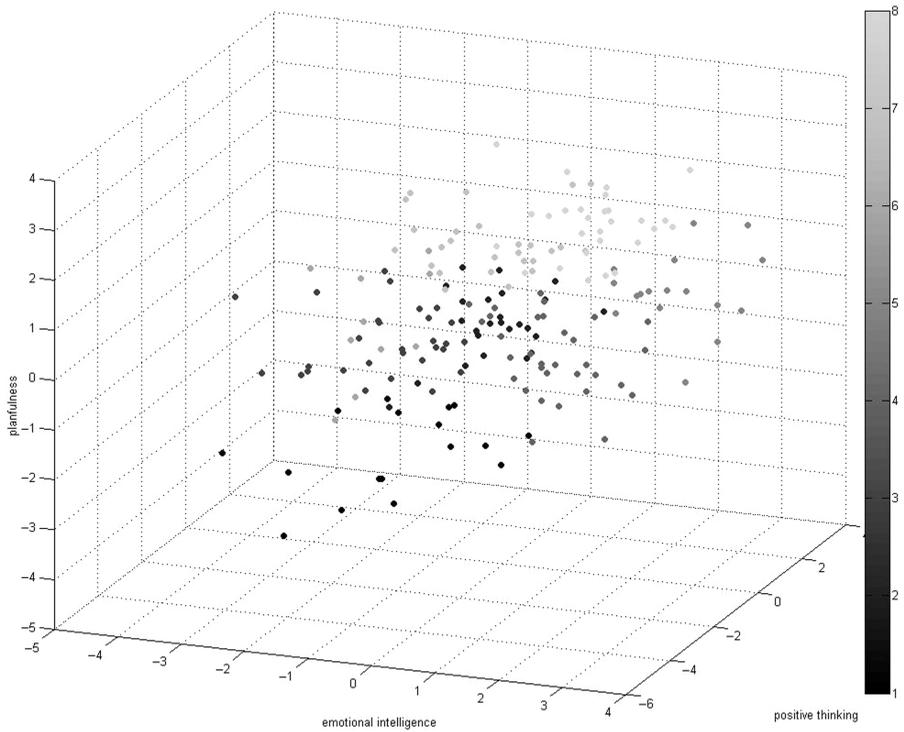


Figure 2.
Clusters

Source(s): Authors' own work

	Frequency	Per cent	Cumulative
D (low average of exam results)	35	9.94	9.94
C (low/medium average of exam results)	141	40.06	50.00
B (medium/high average of exam results)	141	40.06	90.06
A (high average of exam results)	35	9.94	100.00
Total	352	100.00	

Table 6.
Grading scale

Source(s): Authors' own work

Time = 0	Time = 1				
	Grade = D	Grade = C	Grade = B	Grade = A	
Grade = D	17	3	10	4	0
Grade = C	67	5	34	27	1
Grade = B	63	4	21	30	8
Grade = A	21	1	3	12	5
	168	13	68	73	14

Table 7.
Grades over time

Source(s): Authors' own work

From what has been said, therefore, the independent variables to be considered in the ordered logit model are not only planfulness, emotional intelligence and positive thinking, but also if the exam was taken before or after the outbreak of the pandemic (i.e. Covid). Thus, the ordered logit model is:

$$\begin{aligned}
 y_i^* &= x_i \cdot \beta + \varepsilon_i, \forall i = D, C, B, A \text{ and } \varepsilon_i \sim N(0, 1) \\
 y_i = j &\Leftrightarrow \kappa_{j-1} < y_i^* < \kappa_j \\
 P(y_i = j) &= \Phi(\kappa_j - x_i \cdot \beta) - \Phi(\kappa_{j-1} - x_i \cdot \beta) \\
 P(y_i = A) &= \Phi(\kappa_A - x_i \cdot \beta) - \Phi(\kappa_B - x_i \cdot \beta) \\
 &= 1 - \Phi(\kappa_B - x_i \cdot \beta),
 \end{aligned} \tag{1}$$

where y_i is the dependent variable (grade), x_i the vector of the independent variables (planfulness, emotional intelligence, positive thinking and Covid), κ_j the cut points, and ε_i the random disturbance term. The estimation results are displayed in [Table 8](#) and summarized in [Figure 3](#).

While planfulness positively affects academic performance and emotional intelligence affects it negatively, the results concerning the impact of positive thinking and Covid on academic performance are not significant. Considering the *marginal effects*: (1) planfulness positively affects the probability of obtaining a high grade (if planfulness increases by one unit then students are 2.91% more likely to get an A and 5.59% more likely to get a B) and negatively affects the probability of obtaining a low grade (if planfulness increases by one unit then students are 5.61% less likely to get a C and 2.89% less likely to get a D); and (2) emotional intelligence positively affects the probability of obtaining a low grade (if emotional intelligence increases by one unit then students are 1.38% more likely to get a D and 2.68% more likely to get a C) and negatively affects the probability of obtaining a high grade (if emotional intelligence increases by one unit then students are 2.67% less likely to get a B and 1.39% less likely to get an A). Finally, with reference to the *odd ratios*, for a one unit increase in planfulness, the odds of getting a higher grade are about 1.41 times greater (that is, the odds of getting a higher grade increases more than proportionally), and for a one unit increase in emotional intelligence, the odds of getting a higher grade are about 0.85 times greater (that is, the odds of getting a higher grade increases less than proportionally).

5. Discussion and interpretation

Through the PCA we proceeded with the identification of the three components of resilience: planfulness, emotional intelligence and positive thinking. Then, these components were clustered to identify groups of students with the same level of resilience. The analysis of these eight clusters allowed some preliminary observations: (1) students with high planfulness seemed not to have particularly high levels of emotional intelligence; conversely, (2) students with high emotional intelligence seemed not to have particularly high planfulness levels.

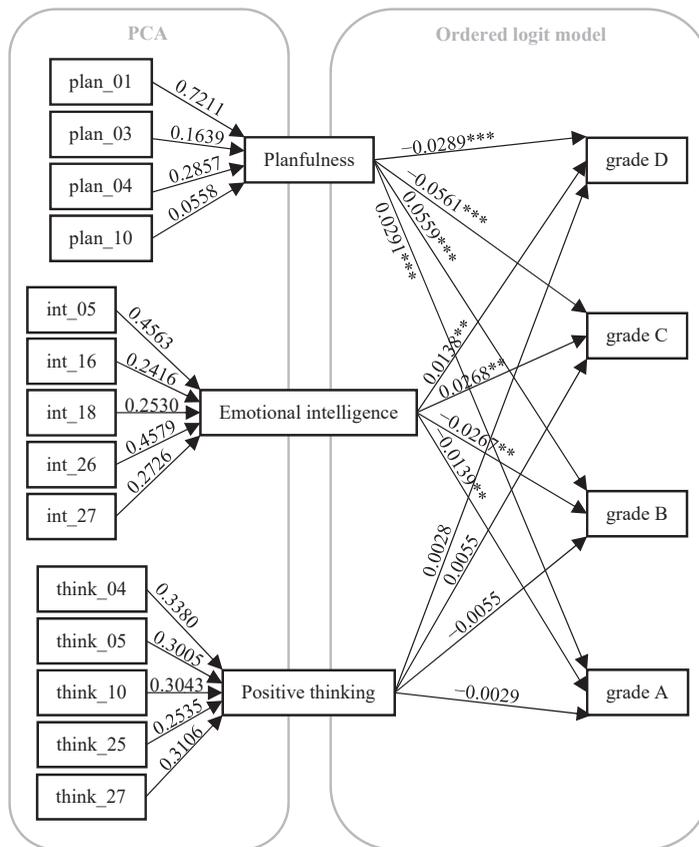
To proceed with an interpretation of the results obtained, we can say that if we intend planfulness as a process-focused trait of individual differences in goal achievement ([Ludwig et al., 2018](#)), we may suppose that it has no relationship with emotional intelligence, as students that focus on planning are more centred on themselves (self-centred) than on the surrounding context. To achieve goals, they leverage more on themselves rather than on the relational dimension, on the cultivation of a relationship with fellow students. On the other side, students with high emotional intelligence are more focused on managing emotions and a sense of empathy and tend to rely on group rather than individual relationships.

In the third phase of our analysis, we realized an ordered logit model. The preliminary analysis of the dependent variable 'grade' seems to suggest that Covid negatively affected

Table 8.
Ordered logit model

	Coefficient	Odd ratio	Marginal effects			
			Grade = D	Grade = C	Grade = B	Grade = A
Planfulness	0.3400*** (0.0884)	1.4050*** (0.1242)	-0.0289*** (0.0082)	-0.0561*** (0.0157)	0.0559*** (0.0157)	0.0297*** (0.0082)
Emotional intelligence	-0.1625** (0.0724)	0.8500** (0.0615)	0.0138** (0.0063)	0.0268** (0.0126)	-0.0257** (0.0122)	-0.0139** (0.0064)
Positive thinking	-0.0337 (0.0623)	0.9672 (0.0602)	0.0028 (0.0053)	0.0055 (0.0103)	-0.0055 (0.0103)	-0.0029 (0.0053)
Covid	-0.0555 (0.1997)	0.9460 (0.1890)	0.0047 (0.0170)	0.0092 (0.0330)	-0.0091 (0.0328)	-0.0047 (0.0171)
Cut 1 = κC	-2.2931 (0.2089)					
Cut 2 = κB	-0.0366 (0.1518)					
Cut 3 = κA	2.2375 (0.2085)					
Pr (grade)			0.0996	0.3973	0.4027	0.1003
Number of obs		352				
(attendances)						
LR χ ² (3)	16.58					
Prob > χ ²	0.0023					
Count R ²	0.440					

Note(s): Standard errors in brackets; *** statistically significant at the 1% level, ** at 5%, * at 10%
Source(s): Authors' own work



Source(s): Authors' own work

Fig. 3.
Synthesis of the results

students with high grades and positively affected students with low grades. These results could be attributable to the fact that high-performers had difficulty or resistance to changing a successful routine while low-performers had a greater propensity towards novelty and experimentation (exams, meetings with teachers and remote classes). The fact that their performances were mediocre allowed them greater areas of experimentation to attempt a possible improvement.

Therefore, the independent variables considered in the ordered logit model were: planfulness, emotional intelligence, positive thinking, and Covid. The estimation results were the following:

- (1) Planfulness positively affected academic performance and emotional intelligence affected it negatively (confirming what emerged from the descriptive analysis of the clusters);
- (2) The impact of positive thinking and Covid was not significant (*not* confirming what emerged from the preliminary analysis of the grades).

To summarize, we can affirm that while H1.1 (high positive thinking is the main component of any academic achievement) was *not verifiable*, H1.2 (students with high emotional intelligence

are high-achievers) was *not verified* and H1.3 (students with high planfulness are high-achievers) was *verified*.

Planfulness appears as the real key to achieve results as it positively affected the probability of obtaining a high grade and negatively affected the probability of obtaining a low grade. The study highlights the importance for students of traits linked to the ability to look ahead as temporal orientation, make plans as mental flexibility and change plans on the go applying cognitive strategies. These are the traits that helped them to achieve results in terms of number of exams taken and grades achieved notwithstanding the pressure of the Covid pandemic. On the other side, there was the effect of emotional intelligence, which seems lower for students with high grades.

The results that emerged need to be contextualized. We may conclude that the educational paradigm that defines the Italian university system for economics faculties is centred primarily on the acquisition of new knowledge rather than on the development of skills where the new knowledge is communicated using conventional teaching techniques. The number of students in a class is high and interactive and project-based teaching methods are used in just a few cases. This might imply that students are not particularly tested in terms of their emotional intelligence when it comes to forming and maintaining new connections throughout their time at university. They only sometimes work in groups. They do not frequently interact with teachers at the institution, and the majority of their peer groups are formed through ties with students. The environment is well organized, and students do not need to stand up for their beliefs or take frequent stands in the face of strong opposition. The emotional challenge arises with the need to be disciplined and to find the better balance between study and life that requires good time management skills. Problems can arise for the handling of one's own emotions such as limits and obstacles to the better management of one's own resources such as time, energy, concentration and ability to focus on study. High grades and a high number of exams are the result and the conquest of a good inner balance. This fact indicates a high level of planfulness as the ability to set goals, respect the plans for their achievement and eventually change them if new conditions require it. The balance that supports planfulness traits allow an increase in the results obtained. The university students' resilience rests, above all, on planfulness, keeping the academic environment stable and well organized. Even the Covid pandemic did not influence the students' academic results even if we can suppose that it took a greater effort to adapt to the new situation, which seems to have had a greater impact on students with high grades than on students with lower grades.

6. Implications of the research, limitations and conclusions

The findings of this study could have a significant impact on universities that provide accompanying services for their students as they enter the job market, such as internship and placement services. These services are becoming increasingly important in a time when companies are investing heavily in employer branding, personalized work experiences and careers that are adaptable and self-directed. To meet these demands, companies need graduates who are well-informed about their own interests and aspirations. Internships and job placements, both during and after a student's academic program, are becoming essential tools for private universities to help guide students towards effective onboarding and to provide orientation to new students. To offer these services effectively, universities need to have a deep understanding of each student's unique traits and characteristics, and how best to position them in the job market.

To strengthen resilience, universities also need to intervene by offering training courses to create awareness on the part of students of these soft traits which, being dynamic and strong-willed, can be considered as driving forces not only for academic performances but

also in professional life in general. This awareness can help the students to better follow their own inclinations and at the same time help the offices in charge of internship and placement services in supporting and directing activities towards a field of interest rather than another.

The results of this research can be very helpful information to the offices in charge of internship and placement services, improving the quality of the service offered to firms (targeted proposal of pre-selected students) and to the students themselves (tailor-made orientation). Universities are also increasingly involved in accreditation processes that require clear and certified formalism and quality orientation.

To conclude, this operational scheme will bring undoubted benefits to all the actors of the process (university, student, firm) in that it will:

- (1) Allow a considerable reduction in time in making proposals to students;
- (2) Perfect the matching between students and firms and consequently, it will accelerate the student's insertion process into the job market;
- (3) Create time available to the Internship & Placement offices to devote to core activities;
- (4) Ensure greater satisfaction in the student-firm relationship;
- (5) Allow the firm to proceed with the inclusion in a targeted manner without wasting time, consequently strengthening employer branding levers.

Our research can be considered a first step towards the inclusion of the formal evaluation of the students' life skills in their academic path, creating a link with their achievements. Our aim is to enlarge the sample and increase the number of hypotheses tested.

Notes

1. Moreover, the Cronbach's alpha is 0.7602, and hence the data are 'reliable'.
2. $PRE_k = \frac{WSS(k-1) - WSS(k)}{WSS(k-1)}$, $k \geq 2$ illustrates the proportional reduction of the WSS for cluster k compared with the previous solution with $k - 1$ clusters (see Makles, 2012).

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