

A CORRELATIONAL ANALYSIS OF MOTIVATION, PERFORMANCE, AND PERSONALITY FACTORS IN THE ACADEMIC ENVIRONMENT

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Abstract: *This study explores the relationship between personality traits, motivation, and academic performance. It focuses on conscientiousness and its impact on performance, as well as the connections between Commitment, Openness to Experience, Nonchalance, and Emotional Stability. The study utilizes a quantitative approach and includes a sample of participants who completed measures assessing personality traits - The Big Five Questionnaire 2 (BFQ), motivational factors - Achievement Motivation Inventory (AMI) and academic performance - institutional annual evaluation. The results demonstrate significant positive correlations ($p < .01$) among all variables studied. Specifically, a strong positive correlation ($r = .56$) is found between Openness to Experience and the level of commitment displayed by employees in academic tasks. Furthermore, a correlation of $r = .41$ is observed between Emotional Stability and the scale of Nonchalance, while a correlation of $.25$ is found between conscientiousness and performance level. The conclusions drawn from this study call for a qualitative analysis of the obtained results, highlighting several aspects related to employee personality, their actions within a collective, and their behavior in relationships with others. These implications and findings can prove useful in educational contexts and contribute to the facilitation of employee perception, action, and behavior in collegial relationships. Practical implications include leveraging employees' strengths, fostering motivation, and creating*

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supportive environments. Future research should expand the sample size, incorporate diverse performance indicators, and explore socio-economic contexts.

Keywords: *personality traits, motivation, academic performance, conscientiousness, commitment, openness to experience, nonchalance, correlation, educational context*

JEL Classification:

1. Introduction

The present study is motivated by two key ideas found in universal literature on performance. Firstly, numerous meta-analyses have consistently demonstrated that employees with a high level of conscientiousness tend to exhibit high performance across various fields (Rus, 2008). This suggests that conscientiousness is a crucial trait that contributes significantly to individual success. Secondly, while there have been several studies examining individual differences in learning styles, thinking styles, academic achievement, and workplace success, there has been relatively limited focus on individual differences in academic motivation. However, motivation plays a pivotal role in academic performance and deserves greater attention (Linnenbrink & Pintrich, 2002).

It is important to note that motivation alone does not solely determine goal attainment and high levels of performance. Research on individual differences in learning styles has revealed that employees approach learning either in a deep, thorough manner, striving for higher levels of understanding, or superficially, displaying disinterest towards activities (Biggs, as cited in Komarraju & Karau, 2005). Additionally, studies have explored various types of intelligence and their relationship with performance. These perspectives converge to suggest that the degree of alignment between the academic environment and an individual's learning and adaptation style is influenced by personality traits and should also be associated with academic motivation.

Therefore, the primary objective of this study is to investigate the relationship between the Big Five personality factors and motivational factors, specifically focusing on the connection between Commitment and Openness to Experience, as well as the scales of Nonchalance and Emotional Stability. By exploring these relationships, the study aims to provide valuable insights into how personality traits and motivational factors interact and influence academic performance.

The second objective of this study is to identify potential associated aspects between conscientiousness and academic performance. Conscientiousness, characterized by traits such as organization, responsibility, and self-discipline, has been consistently linked to positive outcomes in academic settings. Understanding the relationship between conscientiousness and academic performance can provide valuable insights into how individual differences in personality impact educational outcomes.

By addressing these objectives, this study aims to contribute to the existing body of knowledge on individual differences in academic motivation, the influence of personality traits on motivation and performance, and the interplay between conscientiousness and academic achievement. The findings of this study can have practical implications for educational contexts, allowing for the development of strategies that foster motivation, utilize individual strengths, and ultimately enhance overall academic performance.

2. Literature Review

2.1. Exploring the Link Between Motivation, Personality Traits, and Job Performance

In a study conducted by Barrick and Mount (1991), the relationship between personality traits, motivation, and job performance was investigated. The researchers found that individuals with higher levels of motivation, as well as those who exhibited conscientiousness and emotional stability (low neuroticism), tended to perform better in their

jobs. This study highlighted the role of both personality traits and motivation in predicting job performance.

Study on Motivation, Personality, and Academic Performance: In a study focused on academic performance, Vallerand et al. (2008) explored the relationships between motivation, personality traits, and academic achievement. The researchers found that employees who exhibited high levels of intrinsic motivation, as well as those who demonstrated traits such as conscientiousness, openness to experience, and self-esteem, tended to achieve better academic outcomes. This study emphasized the importance of both motivation and personality factors in predicting academic performance.

These studies demonstrate the complex and interconnected nature of motivation, personality, and performance across various domains, including work, academics, and sports. They underscore the importance of considering both motivational factors and individual personality traits when examining performance outcomes.

2.2. Research Studies on Personality and Academic Performance

The research studies discussed provide compelling evidence for the influential role of personality traits, specifically conscientiousness, in predicting academic performance. By examining these studies, it becomes evident that traits such as responsibility, diligence, and self-discipline play a significant role in fostering success in academic pursuits.

The longitudinal study conducted by Roberts, Kuncel, Shiner, Caspi, and Goldberg (2007) spanned an impressive 70-year period, allowing for a comprehensive analysis of the relationship between personality traits and academic success. The findings consistently pointed to conscientiousness as the most robust predictor of academic achievement across different educational stages. This suggests that individuals who exhibit conscientiousness, characterized by traits such as thoroughness and reliability, are more likely to excel academically throughout their educational journey.

In the study conducted by Pekrun, Goetz, Titz, and Perry (2002), the focus shifted to the exploration of academic emotions and personality in relation to achievement. The researchers discovered that employees with high levels of conscientiousness and low levels of neuroticism tended to experience positive academic emotions. These positive emotions, such as enthusiasm and enjoyment, were found to have a direct impact on their academic performance, leading to improved outcomes. This implies that individuals who possess a conscientious and emotionally stable nature are more likely to thrive in their academic endeavors.

Supporting these findings, the meta-analysis conducted by Richardson, Abraham, and Bond (2012) synthesized results from multiple studies and reaffirmed the positive association between conscientiousness and academic performance. The analysis revealed that this relationship holds true across various academic disciplines and educational settings, further strengthening the evidence for the significance of conscientiousness in academic success.

In summary, these research studies provide a compelling argument for the importance of personality traits, particularly conscientiousness, in predicting academic performance. The evidence suggests that individuals who exhibit responsible, diligent, and self-disciplined behaviors are more likely to excel academically, experiencing positive academic emotions and achieving higher levels of academic achievement.

2.3. Exploring the Factors Affecting Job Performance: Insights on Motivation, Personality Traits, and Work Environment

Performance in the workplace plays a crucial role in both individual success and organizational effectiveness. This chapter delves into the multifaceted concept of performance, encompassing its dimensions, determinants, and various measurement methods. It goes beyond a surface-level understanding, delving into the theories and factors that influence employee performance, shedding light on the significance of comprehending and enhancing performance in work settings.

2.4. Exploring Key Factors Influencing Workplace Performance: Insights from Research Studies

Performance at work is a crucial aspect that determines both individual success and organizational effectiveness. This section delves into illuminating research studies that shed light on the factors influencing performance in the workplace.

Study 1: Judge and Piccolo's (2004) comprehensive meta-analysis delved into the intricate relationships between various predictors and overall job performance. The results underscored the remarkable impact of conscientiousness, ability, and specific job knowledge as the strongest predictors of job performance. This study brought to the forefront the significance of individual characteristics in shaping and influencing performance outcomes.

Study 2: Gagné and Deci (2005) conducted a focused study on intrinsic and extrinsic motivation and their role in employee performance. The findings revealed that intrinsic motivation played a pivotal role in positively influencing employee performance. On the other hand, the relationship with extrinsic motivation was found to be weaker and inconsistent. This study emphasized the criticality of nurturing intrinsic motivation to optimize performance outcomes in the workplace.

These research studies collectively emphasize the significance of individual characteristics, such as conscientiousness, ability, specific job knowledge, and intrinsic motivation, in driving workplace performance. Understanding and harnessing these factors can contribute to enhancing overall job performance and organizational success.

3. Research Methodology

3.1. Research Hypotheses

- This study attempts to establish the relationship between the Big Five personality traits and motivational factors along with academic performance.

- The first hypothesis of the study is: the more open an employee is to new experiences, the more engaged they are in their activities.
- The second hypothesis is: the more conscientious an employee is, the higher their academic performance, as previous studies have highlighted a positive correlation between conscientiousness and academic performance.
- Conscientiousness refers to the capacity for control and self-regulation (Costa & McCrae, 1989; Digman, 1990, cited in Iliescu, Pitariu, & Vercellino, 2008). Therefore, conscientious employees are passionate about order and discipline, meticulous, persevering, and tenacious in completing tasks. A secondary hypothesis explores the possibility of a relationship between the Nonchalance scale and the Emotional Stability factor. Emotional stability focuses on characteristics known as positive affectivity, while the opposite pole represents negative affectivity (Watson & Tellegen, 1985; Costa & McCrae, 1987, cited in Iliescu, Pitariu, & Vercellino, 2008). Emotional stability is characterized by the ability to control tension states and maintain control over one's behavior. Nonchalance plays an important role within the motivation concept, often being understood in a negative form, as fear of success, involvement, and commitment (Heckhausen, 1963; Hermans, Petermann, & Zielinski, 1978, cited in Iliescu & Miclăuș, 2007).

3.2. Research Design

- The present study is a non-experimental cross-sectional one, evaluating the same group of subjects only once and quantitatively, as non-quantitative data collection and processing methods were used through the research instrument (questionnaire). Two questionnaires were used: one to collect data regarding employees' personality, namely the Big Five Questionnaire (BFQ), and the

second one, the Achievement Motivation Inventory (AMI), which tests individuals' motivation levels in different domains.

3.3. Participants

- The participants consisted of 75 employees from the Politehnica University of Bucharest. The sample included 35 males and 40 females, ranging in age from 26 to 59 years ($M = 17.63$, $SD = 0.89$)⁶. This group of employees was chosen because it was believed to have an approximately equal probability of including both highly motivated and high-performing individuals, as well as individuals with lower levels of performance and motivation.

3.4. Instruments

- The research instruments employed in this study were carefully selected to investigate the relationships between personality factors and motivational factors. The Big Five Questionnaire 2 (BFQ) was utilized to measure personality, while the Achievement Motivation Inventory (AMI) was employed to assess motivational factors.
- The BFQ, as argued by D. Iliescu, H. Pitariu, and D. Vercellion (2008), aligns with the theoretical arguments suggesting that the five-factor model holds a privileged status compared to other theoretical models. The Romanian manual of BFQ is adapted from the Italian version by G. V. Caprara, C. Barbaranelli, and L. Borgogni, with adaptation carried out by H. Pitariu, D. Iliescu, and D. Vercellino. The questionnaire encompasses the five major dimensions of personality and it consists of a total of 156 items.
- The development of the AMI was based on a broader series of diagnostic research on aptitudes, as well as practical activities typical of differential psychology, which is more strongly oriented towards fundamental research. AMI is grounded in a broad conceptualization of performance motivation (Schuler and Prochaska, cited in Byrne et al., 2003). By incorporating elements from various motivation

theories, the inventory was initially constructed with a pool of 728 items grouped into 38 facets of performance motivation. Through pilot testing, dimension analyses, and multiple administrations of tests for different samples, these studies were reduced to a final set of 170 items grouped into 17 facets (Byrne et al., 2003).

4. Results and Discussion

- To investigate the relationships between the proposed variables, the SPSS program was used, conducting descriptive statistics for each variable, correlations using the Pearson correlation coefficient, and applying simple and multiple regression techniques, as well as calculating the t-test for independent groups.
- *Hypothesis 1:* The more open an employee is to new experiences, the more engaged they are in academic activities. The first hypothesis of the present study linked employees' Openness to Experience with the level of engagement they demonstrate in academic activities. The results revealed a strong relationship between the two subfactors.

Table 1. Descriptive Statistics of Variables in the Hypotheses

	Variables	<i>M</i>	<i>AS</i>	Median	Mode	Skewness	Kurtosis	Min	Max
1	Ae Openness	44.72	7.32	46	49	-.93	.94	21	57
2	EN Commitment	41.57	8.36	42	42	-.32	.66	18	61
3	Med Performance	8.96	.57	9.15	9.38	-.88	.07	7.20	9.95
4	C Conscientiousness	84.01	12.74	84	88	-.67	1.05	42	106
5	S Stability	44.72	11.99	46	49	-.93	.94	33	87
6	FU Fearlessness	.38.05	8.93	37	33	-.32	.54	20	56

Note: N=75; mean (M), standard deviation (SD)

The Pearson correlation coefficient, a numerical index indicating the strength and direction of the relationship between the two variables, is .56, demonstrating a significant positive association between openness to

experiences and engagement ($r = .56, p < .001$). In other words, employees who exhibit openness to new experiences are more engaged in academic activities.

Table 2. Corelațiile între variabilele: Ae-En; Med-C; S-FU

Variabile	r
1 Ae- EN	.56**
2 Med - C	.32**
3 S- FU	.41**

Note: N=75

** $p < .01$ Ae = Openness to Experience En = Commitment Med = Performance C = Conscientiousness S = Emotional Stability FU = Nonchalance

Employees who have a higher tolerance for values, lifestyles, different activities, problem-solving methods, and proactively handle novelty and embrace new experiences are more likely to perform well in their careers and show a willingness to undertake various academic activities or be oriented towards diversity. This correlation, although higher than others reported in the literature, is comparable to those found in studies conducted by other researchers.

This hypothesis was further tested through simple linear regression analysis. The analysis of regression coefficients suggests that engagement is a strong predictor ($B = .49, p < .001$) of openness to experience in academic activities. The unstandardized coefficient or slope of the regression line has a value of .49. This means that for every 1 unit increase in the openness to experience factor, the value of the engagement variable increases by 24.14 on the vertical axis.

Additionally, it is evident that the regression line has a positive slope, indicating an upward trend from the bottom left to the upper right. As previously mentioned, the weighting coefficient (b) has a positive value, and the intercept point (a) where the regression line intersects the vertical axis, or the Y-axis, has a value of 24.14. It is worth noting the coefficient of determination, or common variance, $R^2 = .31$, which

expresses the percentage of the dependent variable's variance explained by the regression equation, $\Delta R^2 = .30$ ($p < .001$).

In conclusion, in the association study of these two variables, 31% of the variance in engagement can be attributed to the variance in the level of openness to experiences of employees, indicating a positive correlation between the two concepts. More results are presented in Table 3.

Table 3. Summary of Simple Linear Regression Analyses

Predictor	Criterion	B	SE (B)	α	β	R ²	ΔR^2	Sig	
1	En	Ae	.49	.85	24.14	.56	.31	.30	.00
2	C	Med	.01	.005	7.74	.32	.10	.09	.05
3	S	FU	.30	.07	17.06	.41	.17	.15	.00

Note: coefficient (B), standard error of the coefficient (SE (B)), alpha value (α), beta value (β), R-squared (R²), change in R-squared (ΔR^2), and the significance level (p-value).

This is interpreted as employees who demonstrate a favorable disposition towards experiencing new things within the educational context, being proactive and capable of tolerating novelty, are more determined in tasks, dedicate a lot of time to their work, and are open to seizing any opportunity to achieve desired results. This link between the two sub-dimensions has been observed by other researchers in the field as well. S. J. Karau and M. Komarraju (2005) reinforced the same idea in their study: individuals with higher levels of openness to experience were more engaged in the learning process and more involved in tasks. This suggests that academic members who are sociable and enjoy being exposed to new ideas are likely to be engaged in the educational experience and can benefit from discussions and interactive learning methods.

Hypothesis 2: The more conscientious an employee is, the higher their academic performance. Conscientiousness is one of the personality

dimensions in the Big Five model, which includes a volitional component related to the need for achievement, self-motivation, and personal efficiency. Additionally, conscientiousness includes a dependency component related to the need for order, responsibility, and caution. Therefore, it is not surprising that conscientiousness has been identified as being positively related to work performance in various organizational contexts (Barrick & Mount, 1991). Conscientiousness influences work performance through multiple mechanisms. For example, individuals with high conscientiousness tend to be more perseverant and engaged in achieving challenging goals compared to individuals with low conscientiousness levels (Barrick, Mount, & Strauss, 1993). Regarding the Pearson correlation coefficient (Table 2), it is not surprising that the results showed a significant moderate positive correlation ($r = .32$, $p < .01$) at a significance level below .01 with 73 degrees of freedom. This is comparable to findings from previous research. This can be interpreted as employees who are more conscientious in their job tasks tend to perform better. In other words, employees who are meticulous, perseverant, organized, and scrupulous have a high likelihood of achieving relevant academic results. Correlation analysis indicates the direction and magnitude of association between two or more variables. However, when it comes to determining the influence that one variable has on the variation of another variable, considering their co-variation and the dynamics of interest, the use of simple linear regression analysis is useful in this regard. Here, we will only refer to the case of simple regression (one dependent variable and one independent variable) and linear regression (the relationship between the two variables can be described by a straight line within the scatterplot).

In the present hypothesis, the unstandardized coefficient or slope of the regression line is .01. This means that for every 1 unit increase in the Conscientiousness variable, the value of the Academic Performance variable increases by .01. The point (constant a) at which the regression line intersects the vertical axis, specifically the Y-axis, has a value of 7.74. The standardized coefficient in this case is $Beta = .32$, and the coefficient

of determination of the regression is $R^2 = .10$ ($p < .05$), indicating that 10% of the variance in performance is explained by Conscientiousness. In other words, 10% of the variance in employee performance can be attributed to their level of conscientiousness. Based on the interpretation of the statistical data, it can be stated that a high level of conscientiousness leads to higher performance, thus demonstrating a link between the two factors. Therefore, the personality factor of Conscientiousness emerges as a significant predictor of academic performance. Employees who are conscientious, open, agreeable, and have a strong desire for achievement are highly likely to have high academic performance. In other words, if an employee is meticulous, detail-oriented, organized, and perseverant in accomplishing job tasks and engaging in various educational activities, they are likely to achieve higher academic performance. Therefore, the human resource management of each institution can enhance employee motivation and determination by aligning work activities with the motivational preferences of employees with different personalities.

Hypothesis 3: The study explores the possibility of a relationship between the Fearlessness scale and Emotional Stability.

Regarding the correlation (r) between employees' fearless behavior in academic activities and their level of emotional stability, it can be observed from the correlation table that there is a significant positive correlation ($r = .41$; $p < .01$). This suggests that as employees score higher on the Fearlessness scale, indicating courageous behavior in academic activities, they also exhibit higher emotional stability (see Table 2). Calculating correlations provides us with the direction and strength of the association between at least two variables. However, when it comes to determining the influence and dynamics that one variable has on another, simple regression analysis is absolutely necessary. In this regard, in the present hypothesis, the criterion variable is represented by the factor Fearlessness, while Emotional Stability is the predictor variable. The unstandardized coefficient or slope of the regression line has a value of 0.30 ($b = 0.30$). This means that for every increase of 1 in the

Fearlessness factor, the value of the Emotional Stability variable increases by 17.06 on the vertical axis.

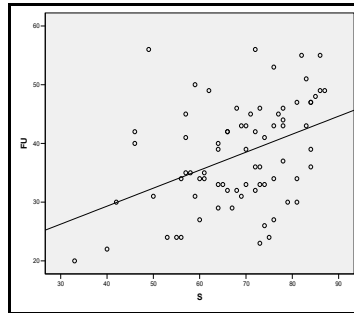


Figure 1. Scatter plot of the factors Resilience and Emotional Stability

Note: $R^2 = .17$; $N = 75$

- As for the exploratory hypothesis, the results indicate that an employee who demonstrates low anxiety and unrest, lacks vulnerabilities, and does not exhibit high emotional reactivity, but rather is patient and difficult to irritate, is more likely to be fearless in the activities they undertake, not fearing failure or negative evaluations. In the face of challenging tasks, they do not become nervous due to disruptive factors, managing to maintain their optimal level of focus so that their performance is not affected. Previous research has highlighted this aspect of employees through various motivations underlying academic motivation. An indirect example in this regard is the factor analysis of the subscales of the AMI questionnaire conducted by S.J. Karau and M. Komarraju in 2005, which revealed three particularly strong motives underlying academic motivation, including avoidant behavior, the opposite of fearless, courageous behavior. On the other hand, anxiety (similar to low emotional stability) hinders individuals from effectively

controlling negative emotions, which are the cause of distraction and inhibit the self-regulation processes involved in motivation (Kanfer and Heggestad, cited in R.P. Guay and L. Parks, 2009).

- In an exploratory approach, it was noted that the research results offer the possibility of a detailed analysis of the relationship between personality factors, motivational factors, and academic performance. Thus, the present study also aims to explore the percentage value that the factors of Emotional Stability and Fearlessness have in explaining the variance in academic performance. Multiple regression analysis was used in this case. The results showed that both Emotional Stability ($B = -0.003$) and Fearlessness ($B = 0.004$) are negative predictors, not significantly predicting the level of academic performance. It can be said that the variables do not account for a significant percentage of the variance in performance ($R^2 = 0.004$, $p = 0.86$).
- Regarding the age variable, the study also explores the relationship between motivational factors and the mentioned variable. Pearson correlation coefficient was calculated between the age of the employees and the AMI scales. It is important to note the existence of interesting correlations with Perseverance ($r = 0.34$), indicating a greater effort made by the employees in solving tasks as they age. A significant correlation was also found with Engagement ($r = 0.30$), demonstrating that the level of effort exerted in the respondents' activities, as well as the workload and diligence shown, increase as they mature. Other interesting correlations were found with Preference for Difficulty ($r = 0.39$), Self-Control ($r = 0.27$), Competitiveness Orientation ($r = 0.31$), and Goal Setting ($r = 0.27$). These correlations, although higher due to the small number of subjects, can still be compared to those found in other studies in the field. In other words, the formulated hypotheses were partially confirmed. Significant positive correlations ($p < .01$) were

found among all variables. Specifically, there was a correlation of $r = .56$ between openness to experiences and the commitment that employees invest in job tasks, a correlation of $r = .41$ between the level of emotional stability and the Fearlessness scale, and a correlation of $r = .25$ between conscientiousness and performance level.

5. Conclusion

The aim of this study was to analyze how the factors and subfactors of the Big Five personality traits relate to individual differences in academic motivation and identify possible relationships between Conscientiousness and employee academic performance.

The main conclusions of this study call for a qualitative analysis of the obtained results, highlighting several aspects related to employees' personality, their actions within the collective and academic context, and their behavior in relationships with others. These implications and findings can prove useful within an educational context and can facilitate the way employees perceive certain things, act, and behave in collegial relationships, thus finding new approaches.

The results suggest, as previous studies have shown, that emotionally stable employees have the ability to mobilize themselves in the face of tasks and obstacles while being responsible for their actions. Conversely, neurotic employees tend to avoid many aspects of academic life and see education as a means to achieve a goal rather than perceiving it intrinsically (S. J. Karau and M. Komarraju, 2005).

Thus, previous findings are consistent with the conclusions of this study, namely that specific aspects of personality, such as emotional stability, commitment, and especially conscientiousness, represent important influences on academic outcomes. Taken as a whole, the study results suggest that differences in employees' motivation levels, which are often easily observable in the workplace, can be linked to differences in core personality traits.

In conclusion, the statements presented above provide strong support for the role played by personality traits in explaining academic motivation and performance within an educational context, contributing to the emerging body of research that highlights individual differences in respondents' behavior.

From a practical perspective, managers who are aware of personality differences could potentially create work environments that capitalize on each employee's strengths, stimulate their motivation through a pleasant and warm atmosphere. The traditionalism and conservatism prevalent in current academic settings may negatively expose employees and impede or even inhibit their desire and capacity for openness to new experiences, thereby preventing them from achieving high levels of performance. Managers could continuously fuel conscientiousness and openness to new experiences, expanding employees' horizons by providing a conducive environment tailored to their personalities, thereby contributing to increased commitment and performance in the workplace.

On the other hand, as evidenced by the study results, with advancing maturity, employees become more conscientious, competitive, engaged, and persevering in tasks undertaken. Moreover, they demonstrate higher self-control, being better able to manage their emotions and set goals, as this is the age at which employees should set long-term objectives and adopt strategies to achieve them.

In addition to research that suggests a connection between personality and broader aspects of learning (e.g., L. Zhang, 2003, cited in S. J. Karau and M. Komarraju, 2005), the above-mentioned findings concerning motivation and academic performance indicate a strong association between general personality traits and these two concepts.

5.1. Limitations of the research and future research directions

There are several limitations to this study that impact its generalizability. Firstly, the study did not have a large and balanced sample in terms of gender and environment, which could be a possible reason why higher correlations were reported compared to other studies in the field.

Secondly, academic performance could not be measured using other indicators such as published articles or international institutional evaluations. Instead, the most common indicator, namely the average of inter-institutional evaluations, was chosen. Furthermore, workplace success is influenced by both external and internal factors, but this study only considered internal factors. External factors include family environment, profession, teaching/performing methods, instructional demands, and socioeconomic status.

On the other hand, another limitation of this study is the lack of longitudinal research, which would have allowed tracking the academic progress of the 75 respondents over time. Lastly, the results presented above could have been somewhat influenced if the research design had incorporated the work styles of the employees, which represent different approaches to work activities.

Future research could make relevant contributions to the literature by examining the issue through the measurement of other variables relevant to the concept of motivation. Additionally, including a greater number of indicators to assess academic performance among employees would enable more generalizable conclusions. In the future, the research could expand to include samples from rural areas, which are often more disadvantaged than urban areas in terms of technology and socioeconomic status.

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