



## The Role of the Proactive Personality in the Innovative Behavior of Southern Technical University Teachers: Creative Self-Efficacy as a Mediating Variable

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### Abstract

Creating highly efficient university outputs requires innovative behavior on the part of those output makers. The process of developing innovative behavior in organizations is largely related to the personal traits and competencies of employees. In this paper, we seek to investigate the effect of proactive personalities along with creative self-efficacy in the emergence of innovative behavior in the workplace. The current study attempts to explore the importance of the personal aspect of the teachers at the Southern Technical University in building knowledge and human capital and investing it in the educational service industry processes. A random sample of 256 teachers in multiple and diverse specializations was targeted. The results obtained indicate that there is a large role for the proactive personality to predict innovative behavior in the workplace. Creative self-efficacy also serves as the fuel that pushes the proactive personality-creative behavior related to a more explanatory place. The results were discussed and a number of recommendations were proposed that serve as a guiding guide for senior administrations in educational institutions on how to invest knowledge capital in aspects of performance and organizational effectiveness.

**Key Words:** Proactive Personality; Innovative Behavior; Creative Self-Efficacy; Southern Technical University Teachers

### المستخلص

يتطلب إنشاء مخرجات جامعية عالية الكفاءة سلوكاً مبتكراً من قبل صانعي هذه المخرجات. إذ ترتبط عملية تطوير السلوك المبتكر في المنظمات إلى حد كبير بالسمات والكفاءات الشخصية للموظفين. في هذه الورقة، نسعى للتحقيق في تأثير الشخصيات الاستباقية إلى جانب الكفاءة الذاتية الإبداعية في ظهور السلوك الابتكاري في مكان العمل. تحاول الدراسة الحالية استكشاف أهمية



الجانب الشخصي للأكاديميين في الجامعة التقنية الجنوبية في بناء المعرفة ورأس المال البشري واستثماره في عمليات صناعة الخدمات التعليمية. تم اختيار عينة عشوائية مكونة ٢٥٦ أكاديمي في تخصصات متعددة ومتنوعة. تشير النتائج التي تم الحصول عليها إلى أن هناك دوراً كبيراً للشخصية الاستباقية للتنبؤ بالسلوك الابتكاري في مكان العمل. تعمل الكفاءة الذاتية الإبداعية أيضاً بمثابة الوقود الذي يدفع السلوك الاستباقي والإبداعي للشخصية المرتبط بمكان العمل. وقد تمت مناقشة النتائج واقتراح عدد من التوصيات لتكون بمثابة دليل إرشادي للإدارات العليا في المؤسسات التعليمية حول كيفية استثمار رأس المال المعرفي في جوانب الأداء والفعالية التنظيمية.

## Introduction

With the pressures that the covid-19 places on individuals and in the fields of life, it has become vital for people to have proactive characteristics in order to search for solutions to the problems they are facing due to the epidemic as well as to accomplish organizational goals (Yi-Fang chen et al., 2021; Abdullah et al., 2021). Everything today is linked to speed of learning, the rush to opportunities, the generation and development of ideas as they play a key role in organizational change. According to previous studies, the academia has a higher level of innovation because its members have proactive personalities that encourage hard work and seizing opportunities (Seibert et al., 2001; Heslin & Klehe, 2006). But how can academic institutions support their innovation processes? Research has found that people with proactive personalities are motivated to come up with new ideas, which is the essence of innovation (Fuller et al., 2006), They also leave a positive impression by sharing their experiences and skills in the workplace to influence others to create innovative solutions (Horng et al., 2016; Alnoor et al., 2021). In addition to implementing new technologies, they can also develop their own techniques to match work methods and investigate and secure resources to implement ideas (Yuau & Woodman, 2010).

The rapid changes and high uncertainty in the environment make it necessary for organizations to gain competitive advantage and to be able to innovate. From that perspective, it is expected that organizational growth, competitiveness and sustainability will be based on organizational characteristics and their employees' and managers' innovative behavior (Tastan, 2013; Al-Abrrow et al., 2021). In other words, self-efficacy refers to a competitive resource that can be relied upon in order to continue working and reach an innovative outcome (Bandura, 1997).

Furthermore, it is significant to study proactive personality and how it contributes to academic outcomes, along with self-efficacy as a mediator variable, Moreover, it is important to study causal relationships using a large sample that includes colleges and institutes at Southern Technical University. The purpose of the study was to examine how academic self-efficacy impacts the relationship between proactive personality and innovative behavior by using the questionnaire as a tool to analyze responses. The results of the study will be discussed in will be discussed later.

## Theory and hypotheses

In the following discussion, we will discuss (proactive personality) the independent variable, as well as (Creative self-efficacy), which is the mediating variable, and the dependent variable (innovative behavior).

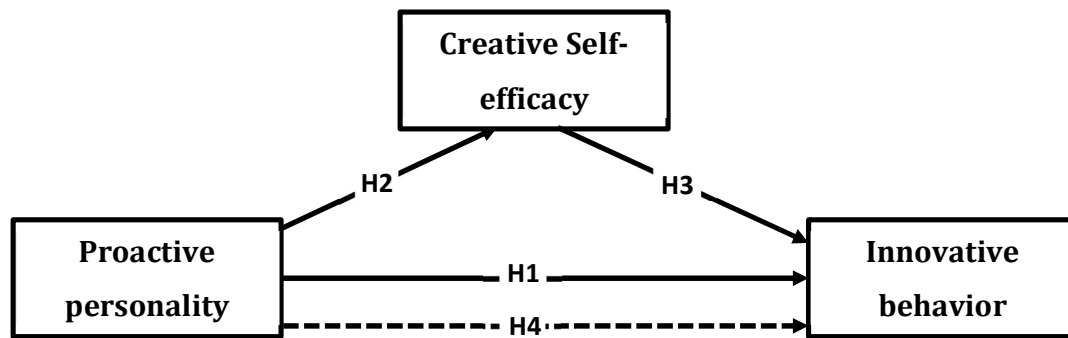


Figure 1. Study model

### Proactive personality

In this concept, proactive people are characterized by their constant desire to change their work environment as well as their organizational conditions to suit the competitive environment (Hundy, 1989). Proactive people usually take actions that are desirable, including active learning, displaying supportive behavior and committing to their organizations as well as providing helpful solutions (Maan et al., 2020). In addition to participating in organizational behavior with additional responsibilities, such as creating a constructive work environment and identifying new ideas (Cullen et al., 2014). A proactive person identifies opportunities and takes action to take advantage of them, showing initiative to do something worthwhile (grant, 2000). In this way, proactive personalities are more effective at helping others achieve their goals when they are exposed to new or challenging situations (Hu et al., 2020).

Among the five personality traits, the proactive personality is similar to some in its emphasis on gaining experiences (extroversion), achieving goals (conscience), and exploring what is unfamiliar (openness). However, it appears conceptually different due to the proactive personality's tendency to exert control to achieve results (Alikaj et al., 2020). People who are proactive tend to take the initiative to fix the obstacles that hinder their work (Loi et al., 2016). In other words, these people invest the majority of their energies into how they can make individual and organizational goals a reality by exhibiting behaviors that seek to improve things (Compell, 2000).

### Proactive personality and Innovative behavior

The concept of innovative behavior refers to the creation, promotion, and realization of new ideas within the workplace or work groups in order to maximize performance (Yuan & Woodman, 2010). It is a multi-stage process in which individuals identify a problem that generates ideas for them or solutions and work to strengthen and build support for it, and to produce a prototype that is applicable within the organization (Carmeli et al., 2006). Afterward, the ideas are promoted more widely and supportive activities are undertaken to provide the strength to make the idea a reality



(Cinyoz & Akdogan, 2011). During the final stage of innovation, the individual must demonstrate innovative behavior by producing a final model that is then analyzed and used in the workplace (Kanter, 1988), and innovative thinking can be initiated By pursuing behaviors that help identify opportunities, find gaps in performance, and seek appropriate solutions (Tastall, 2013). Thus, proactive personality behaviors influence innovative behavior at work (Kong & Li, 2018). The proactive individual contributes to the identification and shaping of work contexts that foster organizational innovation and support change (Amabile, 1998). There are also associations between people who are proactive and feel responsible for change, implementing new ideas, and solving problems (Fuller et al., 2006).

People who are proactive find new ways to complete their work through their drive and efficiency at work (Choi & Thomson, 2005). Proactive people are also good at providing support for new ideas and publicizing them (Schwaad et al., 2007). Proactive personalities also act as catalysts in initiating change and driving innovative behavior that strengthens the operations of their organizations (Giebels et al., 2016). Based on what was mentioned, the first hypothesis can be formulated:

*H1: Proactive personality is positively affecting Innovative behavior.*

#### **Mediator Role of Creative self-efficacy**

The term self-efficacy refers to the ability of an individual to create value-added outcomes (Gong et al., 2009; Tierney & Farmer, 2002). It's how people follow through on their assigned tasks and continue to work (Bandura, 1997). An individual's self-efficacy is one of the most important motivational factors that determine how well they will do in almost any endeavor, The development of self-efficacy is also important for improving performance (Heslin & Klene, 2006). An individual's self-efficacy refers to his or her capacity to produce significant effects. People who are aware they can make a difference feel empowered and take action, while people who feel helpless feel unhappy and are not motivated (Flammer, 2001). Researchers have shown that proactive personality results in proactive behavior and influences self-efficacy, which benefits both employees and companies (Lin et al., 2014). Proactive people have a high degree of self-efficacy, which boosts their engagement behavior and enhances their job satisfaction (Li et al., 2017). where An individual with proactive behavior has a greater motivation to learn new things, has a higher level of ability to learn, is confident in their ability to act, and adheres to virtues of self-confidence (Naz et al., 2020). Individuals with proactive personalities tend to seek out educational and work environments that complement them and strengthen them. Also, these individuals tend to shape their environments in ways that are more suitable for them (Brown & Hirschi, 2013). This means that proactive people have a high level of self-efficacy in changing and developing work (Li et al., 2016).

A self-efficacy is an individual's belief that she or he is capable of achieving creative results (Tierney & Farmer, 2004). It is expected that high levels of CSE should be associated with higher levels of innovative behavior, due to two main reasons. First, individuals with high levels of CSE will feel confident in their skills and knowledge to generate ideas and implement them at work (Jiang & Gu, 2017). Second, those with high CSE scores are better positioned to handle challenges and uncertainties encountered when applying new ideas in the workplace (Richter et al., 2012). According to self-efficacy, employees believe they can convince others to accept and adopt their



(or others') new ideas (Ng & Lucianetti, 2016). In addition Academics with a high sense of self-efficacy tend to be effective in create a new ideas, also when have a strong sense of self-efficacy, students benefit from information who give it to be innovative (Hsiao et al., 2011). The managers can improve workplace innovation by developing a personality that supports self-efficacy and distributes leadership responsibilities (Jönsson et al., 2021).

A proactive personality can enhance creativity by developing self-efficacy to come up with new ideas and make changes at work (Fuller et al., 2006), having such a personality allows the proactive individual to continue developing services and improving organizational results in an innovative way (Seibert et al., 2001). Additionally, self-efficacy plays a positive and supportive role in the relationship between proactive personality and innovative behavior (Choi et al., 2021). People with higher self-efficacy and proactive personality characteristics are more likely to come up with and adopt new ideas (Tierney & Farmer, 2002; Gong et al., 2009; Fuller et al., 2006). Based on what was mentioned, the first hypothesis can be formulated:

**H2:** *Proactive personality is positively affecting Creative self-efficacy.*

**H3:** *Creative self-efficacy is positively affecting Innovative behavior.*

**H4:** *The relationship between Proactive personality and Innovative behavior is mediated by Creative self-efficacy.*

#### Problem statement

This study examined the relationship between proactive personality and creative behavior, where the purpose was to determine the extent to which proactive personality can contribute to improving creative behavior. By using creative self-efficacy as a mediating variable, since the university has many experiences, the research sample needs to understand how their experience and personalities influence behavior of others. The study's problem is therefore to determine whether proactive personalities influence creative behavior? What role does creative self-efficacy play in this?

#### Method

The educational sector was targeted as a population in this study; specifically the academics working at the Southern Technical University with their various specializations were targeted as the target population. There were 750 academics at Southern Technical University, according to Saunders et al. (2019) minimum acceptable number of the target population is 254. Accordingly, 300 questionnaires were distributed, of which 265 were retrieved, and 256 were valid for analysis. Furthermore, the response rate for this study was 85%. The questionnaire was translated and distributed to the respondents for their understanding (the intended research sample). The final sample included 190 males and 66 females. Also, 106 of them had a Ph.D. and 150 had a master's degree in the field of specialization. Of them, 88 were from administrative and accounting specialties. 105 from engineering specialties, and 63 from medical specialties.

The issue of bias is normal in HR studies, particularly with regard to surveys geared toward self-reports. As an answer to the problem, some safeguards were implemented, such as ensuring the confidentiality of information for respondents, and formulation of (reverse translation) scale items (Podsakoff et al., 2003). To measure proactive personality, the 10-item Seibert et al. (1999) scale was used e.g., I am constantly on the lookout for new ways to improve my life, with a reliability of 0.88. Moreover, the innovative behavior at work was measured by six items e.g., I am developing adequate plans and schedules for the implementation of new ideas; this scale was



developed by Scott & Bruce (1994), which obtained a good reliability coefficient of 0.89. Finally, Tierney and Farmer (2002) CSES Scale was used to measure creative self-efficacy, which consisted of three items e.g., I feel that I am good at generating novel ideas, with a reliability coefficient of 0.83. 5-point Likert quintuple scale was relied on, which is graded according to the following answers (not completely agree “1”, disagree “2”, agree to some extent “3”, agree “4”, completely agree “5”).

### Results

This study relied on several measures previously used in the previous literature, which are characterized by reliability and validity. Therefore, the loading factor, Cronbach's alpha ( $\alpha$ ), average variance extracted (AVE), and composite reliability (CR) were adopted for the convergent validity test. The AVE value must be greater than 0.5, while the Cronbach's alpha and consistency reliability (CR) must be greater than 0.7. In addition, the loading factor should be more than 0.5 (Hair et al., 2010). Table 1 shows that all criteria were met, indicating model reliability, with AVE greater than 0.5 and  $\alpha$  & CR greater than 0.7, while all loading factors were greater than 0.7.

**Table 1. Assessment of the measurement model**

Construct	Items	Loadings	AVE	CR	Cronbach's $\alpha$
Proactive personality	pp1	0.838	0.563	0.879	0.893
	pp2	0.715			
	pp3	0.716			
	pp4	0.801			
	pp5	0.707			
	pp6	0.673			
	pp7	0.731			
	pp8	0.801			
	pp9	0.782			
	pp10	0.720			
Innovative behavior	ib1	0.731	0.600	0.844	0.886
	ib2	0.801			
	ib3	0.782			
	ib4	0.734			
	ib5	0.828			
	ib6	0.768			
Creative self-efficacy	cse1	0.801	0.597	0.727	0.788
	cse2	0.782			
	cse3	0.734			

Table 2 presents the descriptive statistics and the correlation between the variables. The results indicated that the mean of the variables was at an average level for the three variables, which ranged between (2.25-3.33), and this indicates that creativity and innovation in the workplace in the academic sector need to be reviewed and studied. The table also showed that the standard



deviation of the variables was slight discrepancies between the respondents' opinions. Finally, the results indicate that there are positive correlations between the three variables at the level of significance (0.05), and this supports the hypotheses of current study.

**Table 2. Descriptive statistics and correlations**

Variables	Mean	SD	1	2	3
1 Proactive personality	3.33	0.911	1		
2 Innovative behavior	3.25	0.885	0.421**	1	
3 Creative self-efficacy	3.34	0.813	0.533**	0.352**	1

In addition, the results suggest that the data is valid for conducting other statistical analyzes, especially testing the study hypotheses because the correlation was less than 0.9.

For the purpose of testing the hypotheses of the current study model, Path Analysis was carried out in the Amos program. Accept or reject the hypothesis on the basis of the C.R and P values, as the critical value must exceed  $\pm 1.96$ , while the P value must be less than 0.05, to accept the hypothesis. Table 4 shows the results of hypothesis testing.

**Table 3. Testing hypotheses**

Path	Estimate (S.E)	C.R	P	Label
Proactive personality → Innovative behavior	0.242 (0.042)	5.506	***	Supported
Proactive personality → Creative self-efficacy	0.299 (0.035)	8.374	***	Supported
Creative self-efficacy → Innovative behavior	0.318 (0.029)	10.102	***	Supported
Proactive personality → Creative self-efficacy → Innovative behavior	0.072 (0.012)	6.381	***	Supported (Partial mediation)

Through the results shown in the table above, it is clear to us that all hypotheses have been supported. As there was a positive effect of the proactive personality on the innovative behavior. There was also a positive effect of the proactive personality on creative self-efficacy. There is an effect of creative self-efficacy on innovative behavior. Finally, it turns out that there is a partial mediation role (because of the acceptance of the H1) of creative self-efficacy in the positive relationship between proactive personality and innovative behavior. The results confirm that the relationship between proactive personality and innovative behavior will be better explained by the presence of creative self-efficacy.

## Discussion

### Theoretical and Practical Implications

It is possible to use this study to learn more about proactive personalities and the benefits they provide to organizations. Proactive personality traits play different roles in organizational change based on how work is developed and motivated to do what is best for the organization, By doing



this, management can respond flexibly to work conditions and develop positive change behaviors in a proactive manner (Lamm et al., 2015). This, these traits increase the interest and support provided to those studying the topic of organizational behavior. In addition, self-efficacy is a key component of the organization and academic practices that support the achievement of growth in the academic field, and therefore, it helps those interested in finding ways to change work for the better, having a high self-efficacy in academics provides a comprehensive understanding and enhances knowledge Students and workers in this field (Li et al., 2016; Fuller et al., 2018). This study can also be considered an important contribution to the literature because it discusses how innovative behavior in the workplace can be refined by looking at proactive personality traits in the work environment, and how well organizations can develop ideas that support development and competition. This study is a great contribution to the academic literature since it sheds light on how innovation in the academic field can be improved. As a result, we find that individuals with a proactive personality are more likely to achieve intercultural adaptability and also develop than those with a low level of this trait. Academics therefore need to employ these traits in order to successfully achieve innovation.

#### Limitations and future research directions

There are also limitations to the study, which may provide opportunities for future research. First, there is the possibility of bias in the sample due to loyalty to the workplace among academics; a second limitation is that the study sample is mainly composed of highly knowledgeable academics, so it is likely to be restricted to a limited set of demographic characteristics. As a third point, this study examined the proactive personality alone rather than comparing it to any other type of personality. Thus, future research could include other types of personality. Finally, the role of gender difference between males and females has not been addressed in this research with respect to the characteristics of males and females, which can be addressed in future research. Future research also can draw from a larger sample from a number of universities to produce more generalized results.

#### Conclusion

This study contributes to the growing body of literature on personality traits, specifically the proactive personality, by connecting it to innovative behavior in universities and highlighting its positive effects on workflow. Also, a study found that self-efficacy also mitigated academics' negative effects and enabled them to innovate and rely on their own abilities, since self-efficacy helps boost the morale of academics and gives them confidence to implement change and generate new ideas that work towards developing universities and raising the level of academic education.

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