



# Correlation between information seeking behavior and innovative work behavior among college students

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## ABSTRACT

**Background:** The role of creativity and innovation in the evolution of modern society is vital. Especially among university students, innovative work behavior is a major concern as they are considered as future agents of change. Various factors, both internal and external, influence innovative work behavior, with information seeking behavior playing a crucial role in this dynamic. **Methods:** This study adopted a correlational approach to explore the relationship between information seeking behavior and innovative work behavior among university students. The research sample included 539 students from various disciplines at various universities in the Greater Jakarta area. Data analysis used descriptive statistical techniques to provide an overview of the participants' demographic data, and Pearson Correlation was used to measure the relationship between the variables studied. In addition, a comparison of the mean scores of innovative work behavior based on demographic characteristics was studied using independent sample t-test and one-way ANOVA methods. **Results:** Analysis showed a positive and significant correlation between information seeking behavior and students' innovative work behavior. This finding is in line with previous research that emphasizes the importance of information-seeking behavior in supporting the process of creativity and innovation. In addition, there were significant differences in innovative work behavior based on students' field of study. **Conclusion:** This study highlights the urgency of developing information-seeking behavior among university students as one of the strategies to increase their level of innovative work behavior. The implications of these findings confirm the need to consider the role of information-seeking behaviors as an integral component of the higher education curriculum to help shape a generation of students who are competitive and innovative in an ever-evolving society.

**KEYWORDS:** college student; correlational; innovative work behavior; information-seeking behavior; multiple regression.

## 1. Introduction

Innovation and creativity are often considered the same (Scott & Bruce, 1994), but creativity is actually part of the innovation process, which is the phase where new useful ideas emerge (Amabile, 1996). Innovation itself is defined as the process or product that results from the ideas created (Tushman & Moore, 1982). Yuan & Woodman (2010) explain innovation as the implementation of creative ideas generated by individuals. Janssen (2000) defines innovative work behavior as individual efforts to create, introduce, and implement new ideas in the workplace, which provide benefits to individuals, groups, or organizations. Janssen also identified three stages in innovative work behavior: idea generation, idea promotion, and idea realization. Among university students, innovative work behavior is often referred to as innovative behavior (Okonkwo, 2014) and is

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important because university students are considered the main source of innovative generation (Martín et al., 2015; Law & Geng, 2018).

Innovative work behavior in individuals is influenced by internal and external factors. Internal factors include personality (Windiarsoh & Etikariena, 2017; Woods, Mustafa, & Anderson, 2018; Zuraik, Kelly, & Dyck, 2020), gender (Belghiti-Mahut, Lafont, & Yousfi, 2016; Mikhailova & Kaminskaya, 2016), problem-solving style (Scott & Bruce, 1994), motivation (Picci & Battistelli, 2008; Yi Dong & Xin Xin, 2013), and interpersonal skills (Carmeli, Meitar, & Weisberg, 2006). Meanwhile, external factors include job complexity (Shalley & Gilson, 2004), leader role (Kang, Solomon, & Choi, 2015), task type (Scott & Bruce, 1994), conflict (Janssen, 2003), organizational climate (Imran, Saeed, Anis-ul-Haq, & Fatima, 2010), and group composition (Hülshager, Anderson, & Salgado, 2009). In university students, factors such as level of autonomy and cognitive demands (Martín, Potočnik, & Fras, 2015), innovative thinking (Anderson, Potočnik, & Zhou, 2014), information-seeking behavior (Zhong, Hu, Zheng, Ding, & Luo, 2018), and innovative organizational climate in schools (Chang & Yang, 2012) become relevant.

From these various factors, this study focuses on information seeking behavior. Information is a crucial element in life because it is needed to answer questions, support ideas or arguments, and in decision making (Shukla & Lalrinenga, 2018). Information seeking behavior is defined as an individual's activity in seeking information to meet certain needs (Wilson, 2000). Case (2016) adds that this behavior is an individual's activity to find information to meet daily needs. The link between information seeking behavior and innovative work behavior is shown by Zhong et al. (2018) who found a significant relationship between the two in university students in China. Research by Gerken et al. (2016) on employees and by Xiao-fen et al. (2014) on university students also showed similar results, where there was a significant relationship between information seeking behavior and innovative work behavior. Zhong et al. (2018) also revealed that all six dimensions of information seeking behavior have a significant relationship with innovative work behavior, and the information utilization dimension is a strong predictor of individual innovative behavior. Therefore, the importance of information-seeking behavior among college students in supporting innovative work behavior is increasingly clear. The purpose of this study is to examine the relationship between information-seeking behavior and innovative work behavior in university students.

## 2. Methods

This study adopted a non-experimental approach, which means that no manipulation or control was performed by the researcher. Specifically, this study uses a correlational design, where participants are treated as a group and two variables are measured in each participant to evaluate the relationship between the variables under study (Gravetter & Forzano, 2016). The focus of this study is on information seeking behavior as the predictor variable and innovative work behavior as the outcome variable.

To measure information-seeking behavior, the researcher and team developed 36 items based on predetermined indicators, with a target total of 18 items. These items are structured in self-report form using a Likert scale that ranges from 1 to 4, where 1 indicates "never", 2 for "rarely", 3 for "often", and 4 for "always". Thus, the total score of this measuring instrument ranges from 18 to 72. The participants in this study were active undergraduate students studying at various universities in the Greater Jakarta area, including the University of Indonesia.

Descriptive statistical analysis was used to describe participants' demographic data such as age, gender, semester, major, residence, and activities, resulting in means, frequencies, and percentages. Pearson correlation was used to assess the relationship between information seeking behavior as the predictor variable and innovative work behavior as the outcome variable. This analysis technique is used to see the difference

between two groups in one characteristic group classification based on the average score. In this study, researchers will use this analysis technique to see the difference in innovative work behavior scores based on gender, age, and activities. This analysis technique is used to see the difference between several groups in one characteristic group classification based on the average score. In this study, researchers will use this analysis technique to see the difference in innovative work behavior scores based on semester, discipline, and place of residence.

### 3. Results and Discussion

#### 3.1 Relationship between information seeking behavior and innovative work behavior

To evaluate the relationship between information seeking behavior and innovative work behavior in 539 participants, researchers utilized the Pearson's correlation statistical method. In addition, this Pearson's correlation technique was used to assess the relationship between six aspects of information-seeking behavior and innovative work behavior. The six dimensions of information seeking behavior include information needs, information sources, information evaluation, information retrieval, information utilization, and information ethics. Below are attached the results of the statistical correlation analyses between the variables in this study.

Table 1. Correlation test results between information seeking behavior, each dimension of information seeking behavior, and innovative work behavior

Variables	<i>r</i>	<i>p</i>
Information Search Behavior	0.53	.000**
Dimensions of Information Search Behavior		
Information Needs	0.46	.000**
Information Sources	0.32	.000**
Evaluating Information	0.51	.000**
Information Retrieval	0.33	.000**
Information Use	0.35	.000**
Information Ethics	0.41	.000**

Note. \*\* $p < 0.01$  (2-tailed)

From the data listed in table 1, it can be seen that there is a significant and positive correlation between information-seeking behavior and innovative work behavior ( $r = .53$ ,  $p < .01$ ), indicating that the higher one's information-seeking behavior, the more likely one will exhibit high innovative work behavior. Similar findings were also seen in the six dimensions of information-seeking behavior that were significantly related to innovative work behavior, including the dimensions of information needs ( $r = .46$ ,  $p < .01$ ), information sources ( $r = .32$ ,  $p < .01$ ), information evaluation ( $r = .51$ ,  $p < .01$ ), information retrieval ( $r = .33$ ,  $p < .01$ ), information use ( $r = .35$ ,  $p < .01$ ), and information ethics ( $r = .41$ ,  $p < .01$ ).

#### 3.2 Overview of information search behavior based on participant demographic data

Table 2. Overview of Information Search Behavior based on Demographic Data

Characteristics	Data	Frekuensi (N=539)	M	Sig.
Gender	Female	354	90.02	$t = .12$
	Male	185	89.89	$p = .904$
Age	18-21 years old	455	89.64	$t = -1.59$

	22-25 years old	84	91.79	p = .790
	4	193	89.98	
Semester	6	154	88.68	F = 1.24
	8	189	90.96	p = .295
	10	3	83.67	
Major	Health Sciences	122	89.43	
	Science and Technology	189	87.56	F = 9.32
	Social Sciences and Humanities	228	92.27	p = .000*
Place of Residence	With immediate family	365	90.4	
	With other family relatives	14	91.93	
	Alone (boarding house/apartment/contract/dormitory)	160	88.84	F = 1.26 p = .286
Activities that are followed / done	Activity	254	88.7	t = -1.27
	No activity	264	90.28	p = .203

Note. \*p<0.05(2-tailed)

The statistical analyses used to evaluate the differences in information seeking behavior scores were independent sample t-test and one-way ANOVA. Based on the data in the table, it can be seen that the demographic characteristic that showed significant differences in information seeking behavior was field of study ( $F=9.32$ ,  $p<.05$ ). Specifically, the social and humanities field of study had a higher mean score (92.27) compared to the health ( $M = 89.43$ ) and science and technology (87.56) fields of study. However, other characteristics such as gender ( $t = .12$ ,  $p>.05$ ), age ( $t = -1.59$ ,  $p>.05$ ), semester ( $F = 1.24$ ,  $p>.05$ ), residence ( $F = 1.26$ ,  $p>.05$ ), and student activities ( $F = -1.27$ ,  $p>.05$ ) showed no significant differences.

This study aims to explore the relationship between information seeking behavior and innovative work behavior among university students. The analysis showed a significant correlation between the two behaviors, in accordance with the findings of previous studies by Xiao-fen, et al. (2014) and Zhong, et al. (2018), which showed that individuals with good information-seeking behavior tend to have good innovative work behavior as well.

In addition, the picture of information seeking behavior shows differences based on the demographic characteristics of the participants, especially the field of study that shows significant differences. Social and humanities fields of study tend to show higher innovative work behavior, perhaps due to the role and learning environment that encourages students in these fields to always seek new knowledge related to the development of their field of study (Kerins, Madden, & Fulton, 2004). Therefore, it is important for students in the social and humanities to maintain their information seeking behavior to support the development of their innovative work behavior.

#### 4. Conclusions

This study produced significant findings, showing a positive and meaningful correlation between information seeking behavior and innovative work behavior among university students. Analysis using Pearson's Correlation statistical method corroborates this finding by confirming that the higher one's information seeking behavior, the higher the level of innovative work behavior. This finding is in line with previous studies that emphasize the important role of information seeking behavior in supporting creativity and innovation. The implications of this study point to the importance of raising awareness

and developing information-seeking behavior among university students as one of the strategic steps to increase their level of innovative work behavior.

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### **Conflicts of Interest**

The authors declare no conflict of interest.

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