



## Identifying Predictors of Career Calling in University Students: A Systematic Literature Review

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### Article Info

#### Article history:

Received September 25, 2024

Revised December 4, 2024

Accepted December 14, 2024

Available Online December 31, 2024

#### Keywords:

Career calling;  
Literature review;  
Predictor;  
Student;  
University;

### ABSTRACT

Career calling plays a crucial role in shaping an individual's career journey. It provides essential direction for students in their learning process and helps establish clear career goals. related to learning and a clear direction for career goals. This study aims to explore the whole and the predictor variables that can affect students' career calling. This study uses a systematic literature review combined with bibliometric analysis method by searching reputable journals through databases: ScienceDirect, Springer, SAGE Journals, Frontiers, MDPI, Wiley Online Library, and Taylor & Francis. Based on a series of systematic literature review methods in reputable journals, 11 relevant articles were obtained. The study results show that 13 factors can affect students' career calling. In conclusion, these factors are categorized into three parts: individual attributes, psychological factors, and environmental factors.



<https://doi.org/10.46627/silet>

## INTRODUCTION

Higher education plays a pivotal role in helping students choose a career path, influencing their long-term professional success (Fouad et al., 2016). Inaccurate career selection negatively impacted students. Students who choose the wrong path may need to secure employment. This situation can result in unsatisfactory employment or jobs that underutilize one's competencies—a scenario referred to as open unemployment. According to data from Badan Pusat Statistik (BPS), in 2023, the open unemployment rate among university graduates has increased compared to that in 2022. Thus, career selection is crucial for students, as it involves evaluating interests, talents, values, and life goals to determine a suitable career path. In this case, students are required to face challenges in finding meaningful career paths based on their interests and talents. To find a meaningful career path, students need to be successful, and one of the most critical tasks that affects the success of a student's career is to develop a fulfilling career (Dumulescu et al., 2015). Career calling is a crucial component of career development. Specific personality traits such as conscientiousness, extraversion, and openness to experience, along with self-efficacy in career decision-making, significantly influence deeper career exploration among university students, both in terms of self-reflection and engagement with professional environments (Lee, 2021).

The concept of "career calling" has attracted researchers' attention in career psychology and professional development over the past few decades. At the beginning of its appearance, Duffy Sedlacek (2007) introduced the career calling variable by associating it with the presence of a calling and searching for a calling. According to Duffy & Sedlacek (2007), career calling was initially introduced to the term "calling", which refers to a direct call from God to live a religious life. However, this definition has evolved in recent decades to include many spiritual and non-



religious meanings and has been applied to careers (Duffy & Sedlacek, 2010). According to experts, career calling has various definitions, and no definition thoroughly explains the definition of career calling in its entirety. Shimizu (2019) noted that diverse definitions pose challenges to understanding the concept of career calling. Research related to career calling faces difficulties in its definition, differentiation, generalization, and relevance (Thompson & Bunderson, 2019). Therefore, researchers have proposed an integrated conceptualization of calling (Thompson & Bunderson, 2019; Dobrow, 2004). In line with this, Beloborodova Leontiev (2024) stated that the understanding of the concept of career calling that still needs to be clarified causes researchers to experience difficulties in researching career calling variables, and this leads to the scarcity of intervention research related to career calling variables. On the other hand, research related to career calling interventions in students is very important to be researched because it has significant benefits for student career development.

According to Skarzyński and Noworol (2022), career calling plays an essential role for students because it can help align their skills and aspirations with the appropriate career path, thereby increasing their chances of success in both education and the world of work. Duffy (2014) stated that career calling provides a more precise direction in pursuing life and career goals based on their values. Career calling has a significant relationship with life planning and increases student learning engagement (Chen, 2023; Yuliawati & Andryan, 2022). The involvement of students in the meaningful learning process allows them to better understand and identify their vocations in a professional context (Rosa, 2017). Students with high career calling tend to report higher levels of life satisfaction, suggesting that career calling can positively impact an individual's psychological well-being (Dumulescu & Opre, 2015). Students with a career calling tend to be more motivated in learning, positively impacting their academic achievement and involvement in lecture activities. Ultimately, a good understanding of career calling can help students make informed decisions, create better opportunities, and make the transition to a professional world easier. Self-efficacy, civic engagement, and spirituality are significant contributors to developing a sense of calling among first-year college students. These factors work synergistically to foster intrinsic motivation, enabling students to clarify and pursue meaningful career goals (Rachel Abouras, 2021).

Based on the above description, career calling is essential for a student's career success. Career calling research is mainly conducted on employees, and there is yet to be a comprehensive study examining career calling in students. However, research conducted on employees cannot be directly generalized to students, considering the differences in the stages of career development between employees and students. The selection of predictor variables for career calling, derived from a comprehensive literature review, focuses on those with demonstrated impact on students' career decisions, addressing a gap in current research, such as job satisfaction, religiousness, life meaning, career decision self-efficacy, and vocational identity (Galles & Lenz, 2013; Simbo et al., 2013; Duffy & Sedlacek, 2010; Dumulescu et al., 2015). Research on career calling is also based on cross-sectional studies that only examine the relationship between predictor variables and career calling simultaneously. In addition, the definition of career calling in relevant studies tends to use a specific definition of "career calling", so it does not cover its entire concept.

Therefore, this study has two main objectives. First, it aims to thoroughly discuss the definition of career calling to improve the understanding of career calling variables. Second, this study seeks to identify the antecedents of career calling variables, which will help to examine the factors contributing to student career calling. The benefits of this research are manifold. By advancing our understanding of career calling, this study provides insights that can inform educational policies, career counseling, and intervention programs tailored to students. Identifying key predictors of career calling will enable stakeholders to design strategies that enhance students' career development, ultimately contributing to their success in higher education and beyond. This research addresses gaps in the literature, offering a comprehensive framework to guide future studies and practices in fostering career readiness among university

students. Based on the diverse definitions and significance of career calling identified in the literature, this study systematically reviews and synthesizes current research to identify key predictors of career calling among university students. The following sections detail our methodological approach.

## RESEARCH METHOD

This study used a Systematic Literature Review (SLR) combined with a bibliometric analysis method by collecting journals that examine career-calling variables in students to identify predictors of career calling among undergraduate students. The SLR adopted the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) guidelines, which ensure a comprehensive and transparent review process. Subsequently, bibliometric analysis was conducted using VOSViewer to enable the visualization of current publication trends in the study of the student career calling. Initially, relevant articles were sourced from databases such as Scopus, which is widely considered a more comprehensive and reliable database. The articles collected for analysis in this study must meet the inclusion criteria that have been determined, including 1) the selected article is an article that examines the variables of student career calling, 2) the article has a range of publications between the last ten years (2014-2024), 3) the article is published in a reputable journal, 4) the article discusses the concept and definition of career calling, 5) the article examines the relationship between career calling variables and other variables with using student subjects. Articles that meet these requirements can be categorized as articles that can be analyzed because they follow the purpose of the research. Based on the PRISMA research method, it was found that 11 articles could be used to answer the purpose of the study, namely, to identify the antecedents of career-calling variables in students.

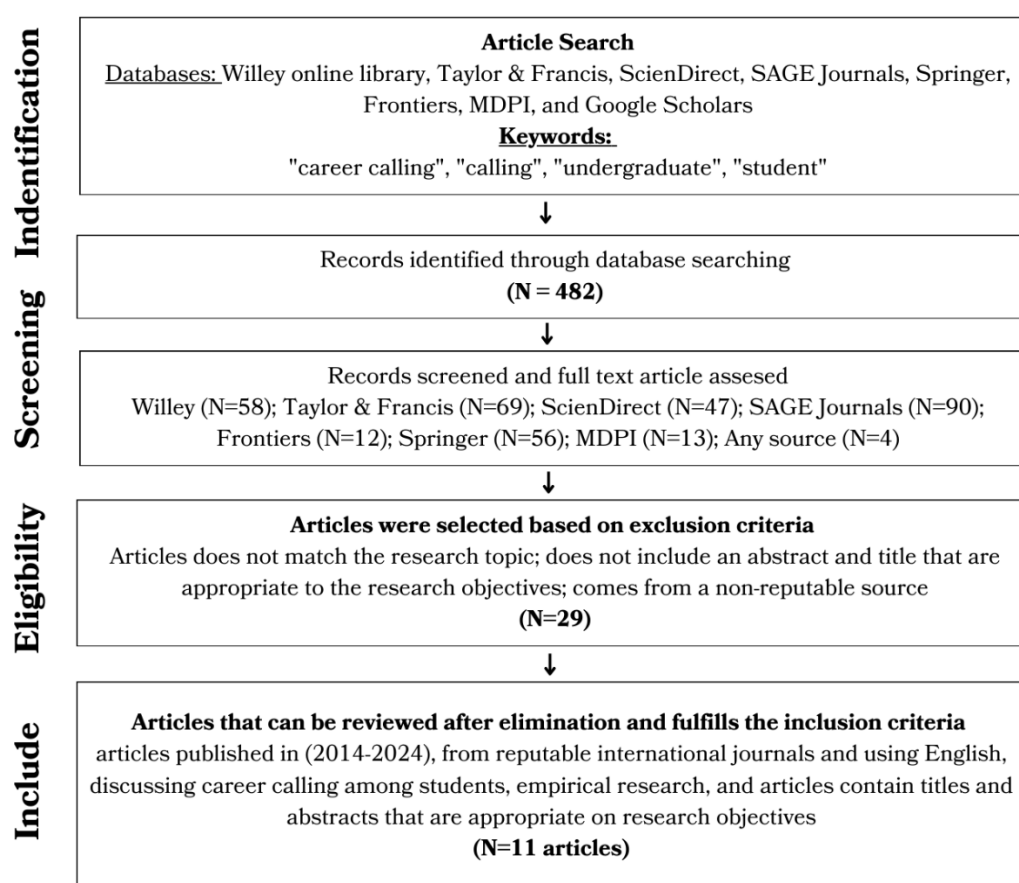


Figure 1. Research methods

## Result

### *Systematic Literature Review*

This study is structured to elucidate comprehensive definitions of career calling, followed by an in-depth examination of its predictor variables among students. Referring to the purpose of the research, the data were presented to clarify the findings obtained through the literature review. The following are the definitions of career calling from various figures, in the order of a year.

**Table 1.** Definition of career calling

| Year | Author           | Construct      | Description                                                                                                                                                                                                                                                                                                 |
|------|------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2007 | Duffy & Sedlacek | Calling        | Calling is a transcendent summons experienced as originating beyond the self, which directs an individual to approach a particular life role with a sense of purpose or meaningfulness.                                                                                                                     |
| 2009 | Dik et al.       | Calling        | Career calling is 1) a sense of transcendent summons or purpose in one's chosen career, 2) the career bringing a sense of meaning and purpose to one's life, and 3) the career serving a broader social purpose or good.                                                                                    |
| 2010 | Duffy & Sedlacek | Career Calling | "Career calling" is a broad, multifaceted construct encompassing religious and non-religious meanings. It is an essential personal variable that may influence students' career decision-making.                                                                                                            |
| 2010 | Steger et al.    | Calling        | Career calling emphasizes work's meaning and personal fulfilment rather than a strictly religious definition.                                                                                                                                                                                               |
| 2011 | Dobrow et al.    | Career Calling | Career calling is a strong, passionate pull toward a particular line of work that individuals feel deeply connected to work.                                                                                                                                                                                |
| 2011 | Hernandez et al. | Career Calling | Career calling is a strong religious or spiritual sense of being called by God to a particular career. It involves understanding the career choice arising from a relationship with God and the struggles and challenges in following that calling.                                                         |
| 2011 | Longman et al.   | Career Calling | Career calling is "an individual's awareness and use of their unique talents and strengths, clues to God's plan for their lives.                                                                                                                                                                            |
| 2013 | Galles & Lenz    | Calling        | Calling is an external summons to approach a life role in a manner oriented toward deriving a sense of purpose or meaningfulness."                                                                                                                                                                          |
| 2013 | Williams         | Career Calling | "career calling" is that the participants view their future careers as a calling from God, which is part of a more significant, meaningful life.                                                                                                                                                            |
| 2015 | Praskova et al.  | Career Calling | Career calling is "a salient career goal that is personally meaningful and oriented toward helping others".                                                                                                                                                                                                 |
| 2015 | Bott & Duffy     | Career Calling | "Career calling" is a sense of purpose or meaning in one's work that is predicted by an individual's search for life meaning and engagement in personal growth over time                                                                                                                                    |
| 2015 | Zhang et al.     | Career Calling | Career calling includes four key dimensions: a guiding force, a sense of meaning and purpose, altruism, and an active tendency. It also contains a unique "sense of duty" component that emerged from their Chinese sample, and the authors recognized that the effects of calling are not always positive. |
| 2015 | Praskova et al.  | Career Calling | Career calling is a construct that is positively associated with life satisfaction, perceived employability, work effort, career strategies, and emotional regulation.                                                                                                                                      |
| 2017 | Clinton et al.   | Career Calling | Career calling is called a form of work orientation that comprises relatively stable core beliefs about both work and life and is characterized by a combination of three key elements: an external summons to the work, a sense of                                                                         |



| Year | Author       | Construct      | Description                                                                                                                                                                                                                                                                                                  |
|------|--------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |              |                | significant meaning and purpose linked to personal goals, and a prosocial orientation to the work.                                                                                                                                                                                                           |
| 2020 | Rosa et al.  | Career Calling | Career calling is purposeful, meaningful, and passion-driven engagement in a career that one feels drawn to pursue and contributes to the greater good.                                                                                                                                                      |
| 2020 | Bloom et al. | Calling        | Career calling is a positive, ideal way of experiencing one's work that develops through discernment or exploration, shaping the individual's professional identity.                                                                                                                                         |
| 2020 | Chang et al. | Career Calling | Career calling is called "a transcendent summons, experienced as originating beyond the self, to approach a particular life role in a manner oriented toward demonstrating or deriving a sense of purpose or meaningfulness and that holds other-oriented values and goals as primary sources of motivation. |
| 2021 | Zhang et al. | Career Calling | Career calling is based on internal and external sources, including intrinsic interest, inner passion, or inner voice, and external sources, including the needs of society/nation and fulfilling family duty.                                                                                               |
| 2021 | Jia et al.   | Career Calling | Career calling is a psychological state that reflects individuals' passion for a job that is considered the meaning of their life.                                                                                                                                                                           |
| 2022 | Chen et al.  | Career Calling | Career calling as an individual's sense of purpose or meaning derived from their work, which they treated as a continuous variable in their analyses                                                                                                                                                         |

Based on a series of literature reviews, it is found that opinions from three leading figures, Duffy and Dik, Praskova, and Zhang, dominate discussions of the definition of career calling.

The primary purpose of this study was to determine the variables that predict students' career calling. Based on a series of literature reviews, Table 2 presents the research results on career-calling predictor variables in students.

**Table 2.** Career calling predictor variables

| Predictors Variable |                      |              |                                   |                                        |
|---------------------|----------------------|--------------|-----------------------------------|----------------------------------------|
|                     | Variable             | Method       | Sample                            | Source                                 |
| Internal Source     | Character strengths  | Experiment   | 25 students                       | Stavropoulou et al. (2024)             |
|                     | Core self-evaluation | Quantitative | 420 nursing students, 83 students | Wang et al. (2023), Shen et al. (2021) |
|                     | Trait gratitude      | Quantitative | 624 students                      | Li et al. (2021)                       |
|                     | Self-concept         | Quantitative | 674 students                      | Lau et al. (2019)                      |
|                     | Career exploration   | Quantitative | 1321 students                     | Ran et al. (2023)                      |
|                     | Career adaptability  | Quantitative | 1321 students                     | Ran et al. (2023)                      |
|                     | Career engagement    | Quantitative | 213 students                      | Creed et al. (2015)                    |
|                     | Self-reflection      | Quantitative | 1321 students                     | Ran et al. (2023)                      |
|                     | Life planning        | Quantitative | 173 students                      | Yuliyawati & Andryan (2022)            |
|                     |                      |              |                                   |                                        |



| Predictors Variable    |                       |                            |              |                               |                                             |
|------------------------|-----------------------|----------------------------|--------------|-------------------------------|---------------------------------------------|
|                        |                       | Variable                   | Method       | Sample                        | Source                                      |
|                        |                       | Life meaning               | Quantitative | 443 students,<br>292 students | Duffy et al. (2014),<br>Bott & Duffy (2015) |
|                        |                       | Personal growth initiative | Quantitative | 443 students                  | Bott & Duffy (2015)                         |
|                        |                       | Vocational self-clarity    | Quantitative | 292 students                  | Duffy et al. (2014)                         |
| <b>External Source</b> | Environmental Factors | Parenting style            | Quantitative | 1.127 students                | Tian et al. (2021)                          |

An analysis of 11 key articles revealed the critical antecedent variables of career calling in students. Based on a systematic literature review, it was found that 13 variables predicted career calling, including character strengths, core self-evaluation, trait gratitude, self-concept, career exploration, career adaptability, career engagement, self-reflection, life planning, life meaning, personal growth initiative, vocational self-clarity, and parenting style. These 11 articles categorized the career calling antecedent variable into two sources: internal and external. Based on this, it can be concluded that most studies examine antecedent variables from career-calling and associate career-calling variables with personal variables or from within individuals.

### ***Bibliometric Analysis***

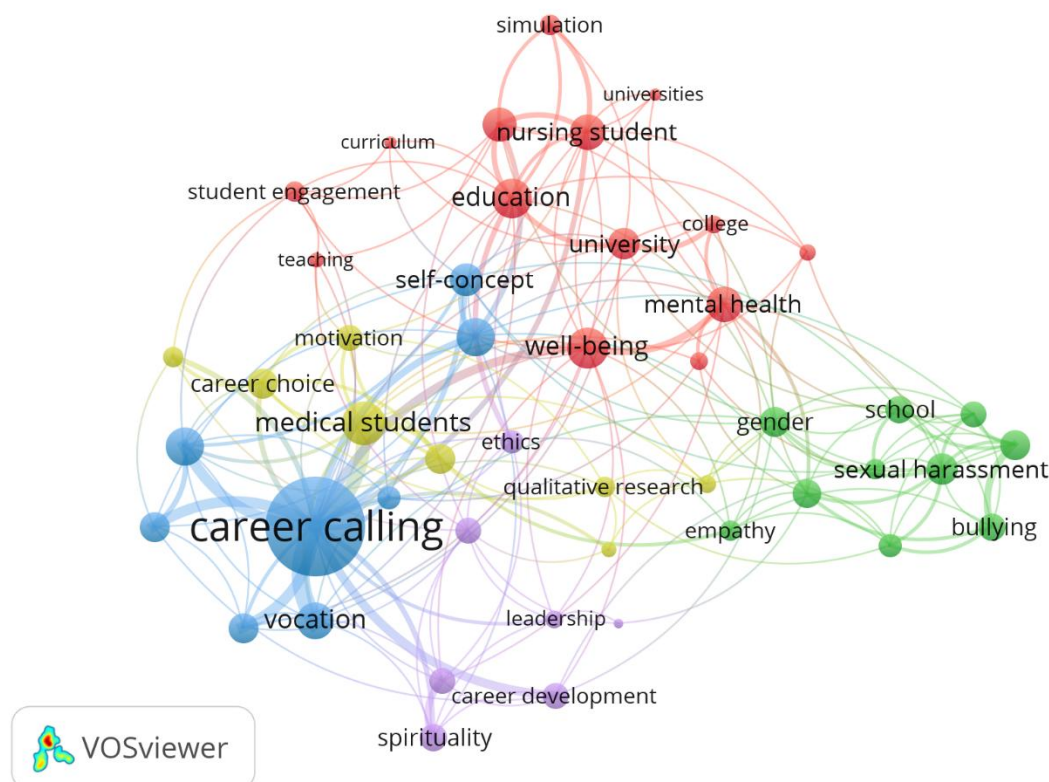
According to the Scopus database shows that there is a total of 4853 documents related to student career calling from all the time. Relevant articles were gathered from Scopus using keywords such as "career calling," "calling," "student," "undergraduate student," or "university student" within 2014-2024. After applying specific criteria for inclusion and exclusion, it can be seen in the following figure that there are 1671 research articles published during the 2014-2024 period, and the number of publications has increased over time.

This bibliometric analysis from VOSViewer mapping visualization of 1671 papers was conducted using the keywords co-occurrence analysis, which is famous for helping to reveal the core research topic. To identify the co-occurrence keywords, the minimum keyword frequency was limited to five, leading to a total of 47 keywords used in visualization analysis, as displayed in Figure 2.

The analysis of network visualization shown in Figure 2 reveals that the keywords are closely related and clustered together in the database. The keywords were divided into 5 clusters, and each cluster represents a different research topic. In this context, larger nodes indicate a higher density of publications, while the distance between nodes reflects how closely the publications are cited across various fields of study. Career calling is situated in the blue cluster which includes terms like career adaptability, life meaning, longitudinal, resilience, self-concept, self-efficacy, and vocation. The result of this analysis also supports the findings obtained through the systematic literature review. The strong connection within this cluster indicates that the concept of career calling is often linked to intrinsic motivation and personal values. Career calling involves an individual's perception of their work as a meaningful part of their life purpose. Based on this network, it connects with well-being and mental health (red cluster), related to career choice and motivation (yellow cluster), influenced by social challenges such as gender dynamics and bullying (green cluster), and it ties into self-development and leadership (purple cluster).

### **Discussion**

There are two main topics of conversation in the discussion of this study. In the first discussion, the topic was the definition of career calling as a whole. Meanwhile, the discussion of the two issues that will be addressed is the predictor variable of students' career calling.



**Figure 2.** A network analysis of keywords co-occurrence

### Definition of Career Calling

Research on career calling in the last decade has been significantly dominated by the thinking of three central figures: Duffy, Dik, Praskova, and Zhang. The contributions of these three figures have formed a theoretical framework that underlies most empirical studies on career-calling variables in students. The definition of "career calling" has developed significantly since it first appeared. At the beginning of its appearance, Duffy and Sedlacek (2007) introduced the career calling variable by associating it with the presence of a calling and searching for a calling. According to Duffy and Sedlacek (2007), career calling was initially introduced as the term "calling", which refers to a direct call from God to live a religious life. However, this definition has evolved in recent decades to include many spiritual and non-religious meanings and has been applied to careers (Duffy & Sedlacek, 2010). Career calling is a construction that can be religious or non-religious, which historically means a direct call from God to a spiritual calling, and is applied to various career paths (Duffy et al., 2010).

Furthermore, Dik and Duffy (2009) define calling as "a transcendent summons, experienced as originating beyond the self, to approach a particular life role in a manner oriented toward demonstrating or deriving a sense of purpose or meaningfulness, and that holds other-oriented values and goals as primary sources of motivation." The concept of vocation has evolved from its religious roots to a broader definition that includes purpose and meaning at work (Galles & Lenz, 2013). Based on the scale developed by Dik and Duffy (2009), career calling is a concept that includes two main aspects: the presence of a calling and the search for a calling.

On the other hand, Praskova et al. (2015) stated that a career calling is defined as a career goal that is prominent, personally meaningful, and oriented to help others. In addition, career calling is stated to be an aspect of the job or work that a person considers important that is self-fulfilling and seeks to assist others, which means that career calling is an important career objective for people who seek to make an impact in society's social sphere (Praskova et al., 2015). This goal is significant in terms of the self and includes the willingness to enhance in a positive way. This illustrates that career-seeking is mostly focused on one's accomplishments and what

good one can do for others or for the society within which such an individual resides. Supporting this notion, Kim (2017) broadens the definition by stating that career calling makes sense at a very personal level, which instills a need to help others, and this resonates with an individual's happiness and contentment. Further, career calling is a response to the meaning of life and places considerable importance upon self-fulfillment according to Bott (2015), which suggests that career calling is the end product of an arduous quest for meaning and one's development, and supports the assertion that career calling is a worthwhile pursuit of the individual in this case. It can be observed that as it relates to career calling, career calling is a construction that contains several components, including personal attitudes, goals or life plans, and broader redemptive themes. This is consistent with a definition of career calling as a goal that is personally significant and is directed towards the service of other people.

Zhang (2015), "career calling" is understood to have four dimensions". Master of Science student career choice has four dimensions according to Zhang (2015): guiding force, meaning and purpose, altruistic, and active tendencies. Career calling which is a drive that appears in an individual's professional life to give a sense of direction and the purpose of work, adds to the meaning and sense of purpose of many individuals, and motivates people to actively seek their career objectives and goals as well makes work more important and enjoyable, more often than not a desire to help other people and positively impact the society (Zhang et al., 2015). In addition, when I ask such a question to the students. Zhang (2021) stated that a career calling is something internal (like personal values and interests) and external (like society or culture), which will help the student make the transition from university to the workplace.

Based on the explanation of the definition of career calling from the three figures above, it can be concluded that the meaning of the concept of career calling from each character complements the other. Based on these three figures, it can be concluded that the definition of career calling based on the three articles is that career calling is a career goal that is personally meaningful and oriented toward helping others (Praskova, 2015), which involves a transcendent calling for a specific career, providing meaning in life, and serving the community (Dik et al., 2009; Zhang, 2015). These three figures emphasize that career calling is a concept that is personally meaningful and often related to a larger or altruistic goal and that it significantly impacts individual career decisions and satisfaction. These definitions demonstrate that the notion of calling has its roots in the religious vocation of a person but, with time, gets transformed to become a more multi-faceted idea that contains a lot of the aspects of the meaning of life and also has a higher utility.

## Career Calling Predictors

### Internal Source and External Source

According to the theoretical model by Dobrow et al. (2020) that elaborates the relationship of a calling to a good life, individuals' calling is that there are two types of calling: internally focused and externally focused. The main feature of the two categories lies on the calling source, whether it originates with in the person known as internal or outside the person commonly called external.

#### 1. Internal sources

The attributes of an individual that explain the career calling. In this case, the internal sources were subdivided in two ways: individual and psychological. On the contrary.

#### 2. External sources

Predictors from beyond the individual assist in the development of a career calling. Environmental factors can predict culturally shaped career calls, mostly in students. The cultural Lens Approach emphasizes the need for culturally sensitive interventions to foster a sense of calling, recognizing that cultural contexts alter the interpretation of work as a calling (Dik et al., 2019). For analytical purposes of result interpretation of this study, this study categorized different types of mussel farming factors that can make students feel a career calling. In terms of previous research and theory, it is implied that this study divides

the antecedent factors of career-calling into individual traits, personal components, and the environment's influence (Zhu et al., 2021).

### **Individual Characteristics**

Personality aspects play a significant role in success when it comes to occupational choice and enactment (Ozora 2016). Everybody, in one way or another, adjusts their vocation that cuts across all the individual characteristics that they possess. As per Table 2, there are known to be four predictor variables that come from the single individual characteristics that can enhance students' career calling. This is consistent with the findings of induction traits in individuals, character strength, self-concept, core self-evaluation, and gratitude traits have been found to build and also be factored into the existence of career calling in the students population (Lau et al., 2020; Li et al., 2023; Shen et al., 2021; Stavropoulou et al., 2024; Wang et al., 2023).

#### **1. Character Strength**

A recent study performed by Stavropoulou et al. (2024) focused on career Calling and Character Strength and found an impact of character strength on an individual's career calling. Character strength can enhance students' career calling (Stavropoulou et al. 2024). Character development enhances career calling in students (Allan & Duffy, 2014). Persistent character strengths such as perseverance and optimism are likely to enhance individual's career pursuance among students (Harzer & Ruch, 2013).

#### **2. Self Concept**

A self-concept or self-definition of a student has an impact on the existence of a career calling among the students, which may enhance their chances of job readiness as per research by Lau et al. (2020) This is because a developed self-concept is one of the factors that can determine a high level of student career calling, and eventually relates to increased students' work readiness (Lau et al. 2019). Another study highlights that the level of self-concept clarity provides essential contributions to the process of making related career decisions as it enhances professional self-efficacy as well as the ability to establish relevant career objectives, which is part of career calling as such (Teixeira et al., 2005). As can be seen in network visualization using VOSViewer, self-concept is placed within the same cluster as career calling, indicating that these two concepts are interconnected.

#### **3. Core Self-Evaluation**

Core self-evaluation with respect to career calling in students has also been identified as a self-evaluation factor in individuals as core evaluations of self (Shen et al., 2021; Wang et al., 2023). Support for core self-evaluation was reported by two studies conducted by Shen et al. (2021) and Wang et al. (2023), stating that core self-evaluation increases career calling in students, which in the end is beneficial to students' careers. Students with self-reflection and positive self-evaluation are likely to identify their interests, values, and factors of aptitude, enabling them to choose the most suitable profession. Core self-evaluation may enhance student career calling, and positive student career calling may enhance student engagement (Wang et al., 2023). The core self-evaluation construct can serve as a potential detached antecedent predictor of career calling in students proposing optimal strategies to deal with their career decision-making difficulties (Shen et al., 2021).

#### **4. Trait Gratitude**

For instance, besides engaging in a positive evaluation and self-reflection, positive gratitude traits also factors into the students' sense of career calling which eventually may assist them in securing purposeful employment (Li et al., 2023). Positive gratitude traits, in particular, link gratitude to higher prosocial motivation (Ma, Tunney, & Ferguson, 2017). Such motivation is part and parcel of career calling (Duffy & Dik, 2013). Character traits such as trait gratitude can also reposition workers' perspective of work from being just a job to that of a calling (Alkozei et al., 2011).

## Psychological Factors

Psychological factors can determine an individual's career success (Tartas et al. 2011). Based on Table 2. Eight variables predict student career calling based on psychological factors, namely career exploration, career adaptability, career engagement, self-reflection, life planning, life meaning, personal growth initiative, and vocational self-clarity (Ran et al., 2023; Creed et al., 2015; Yuliyawati & Andryan, 2022; Duffy et al., 2014; Bott & Duffy, 2015).

### 1. Career Exploration

According to Ran et al. (2023), career exploration seems to have the highest influence on the career calling in individuals compared to all the other variables. This supports the claim of career exploration in the development of an individual's career (Ran et al., 2023). A positive correlation has been established between the effects of career exploration and changes in the students' career calls (Zhang et al. 2022). Career exploration interventions help to raise the self-concept and maturity needed for one to develop a career calling (Lau, 2019). The sense of calling can be associated with other career outcomes, self-efficacy expectations among others, and career exploration can enhance these sense of calling (Domene 2012; Kaminsky 2015).

### 2. Career Adaptability

Career adaptability can turn out to be of importance in addressing the students' career calling (Ran et al. 2023). When it comes to the students, career adaptability may enhance the involvement in the learning process and the satisfaction from life, which would then enhance their calling (Akkermans, 2018). Apart from being a passion for career calling, Praskova (2014) further stated that a career calling and career adaptability have a direct positive relationship, while career calling is a predictor of career adaptability. Career adaptability and career calling also belonging within the same cluster in the network analysis using VOSViewer and that means there is significant relationship between the concepts.

### 3. Career Engagement

Research conducted by Creed et al. (2015) revealed that career engagement can enhance career calling among students. This high career engagement, in terms of zeal and commitment towards work, particularly commands, makes students feel more connected with their career calling (Creed et al., 2015). Healthy engagement assists young adults in determining and realizing their career aspirations that, many of the developmental tasks must be accomplished in the young adulthood stage (Mulyana & Puspitadewi, 2015). Further some literature support that also career calling can facilitate the individual to develop proactive behavior and engagement in the process of career development (Hirschi, 2012). Employees' engagement at work has been shown to correlate positively with their wellbeing (Muhadi & Izzati, 2020).

### 4. Self-Reflection

There is a positive relationship between self-reflection and career calling; students with positive self-reflection present students with positive career calling (Ran et al., 2023). Lengelle (2016) highlights that self-reflection is necessary for developing career identity, and this must be carefully managed to prevent the transformation of self-reflection into detrimental contemplation. Furthermore, Bott & Duffy (2015) found that personal growth results from self-reflection, which significantly predicts the experience of career calls in students. This suggests that college students who engage in self-reflection are more likely to seek meaning in life and engage in self-improvement, thereby increasing their sense of calling.

### 5. Life Planning

Studies have exhibited that life planning is a predictor variable which affects the students' career calling. Life planning deficiency has a correlation with the perceptions of adequate plans and the career calling experience (Yuliyawati & Ardyan, 2022). Many people see vocation as providing a sense of purpose to their lives, which in some circumstances, may be

enhanced by actions directed towards preparation for one's career, career planning and exploration (Shen et al., 2018).

#### **6. Life Meaning**

It was mentioned in two studies that life meaning has potential to predict students' notions of career calling (Duffy et al., 2014; Bott & Duffy, 2015). Bott & Duffy (2015) have shown that the search for meaning in life and the personal growth aspects positively predict career calling among college students' population. A similar theory is applicable to career calling stating that the more individuals strive to find meaning and seek out ways to develop themselves, the greater the chances of career calling. Furthermore, Zhang (2016) suggested that having an overview of what one's future job entails can increase the person's meaning of life and sense of having a career calling. This research confirms that working in such an area where you understand clearly the future of work and its significance, is a sure way to develop a career calling. Duffy (2010) also observed a moderate positive correlation between the meaning of life and the presence of a career calling. This concept also implies that the meaning of life has fundamental significance in shaping why individuals seeks career calling. Career calling can be predicted by life meaning, and can also be evidenced by career calling among students (Praskova et al., 2014). Network analysis using VOSViewer shows that life meaning and career calling placed within the same cluster, indicating that these two concepts has correlation.

#### **7. Personal Growth Initiatives**

Bott & Duffy (2015) two-wave longitudinal study and integrated structural equations modeling suggested for the first time that a career calling is a project over time which is framed within the need for meaning in life and self-actualization as well. In particular, students with the willingness to extend themselves will seek additional skills and knowledge pertinent for their target careers (Bott and Duffy 2015). More specifically, the individuals who feel the need to improve themselves and to find meaning in their lives are likely to have a career calling at a later stage (Bott, 2015). Women enrolled in personal growth initiatives were also found to positively correlate with vocational identity and actively career develop, both of which are factors in developing a career calling (Robitschek, 1999). Personal growth initiatives compel the individual to make positive progress that is relevant and will help them find and live their calling (Yuliawati 2022).

#### **8. Vocational self-clarity**

Duffy et al. (2014) investigated the role of vocational self-clarity as a measure of career calling among students. The study's findings revealed that vocational self-clarity positively correlated with some when predicting individual career calling variables. Individuals with more self-clarity are more proactive in information search regarding different careers and have less hopelessness as well are likely to pursue a career that is more aligned with their interests and value more (Duffy et al., 2014). Also, the result of network analysis using VOSViewer has shown there is relationship between vocation and career calling concept as they are placed within the same cluster.

### **Environmental Factors**

From the review of the literature, one study analyzed the career calling antecedents variable in students with individual external constructs as related variables. For this reason, Tian et al. (2021) carried out this study and sought to determine the impact of variables of parenting styles on students as a predictor of career calling. Effective learning environments can improve student satisfaction as well as motivation and academic performance (Dastidar, 2021). Studies have shown that the existing parenting styles can be considered as a predictor of as well as an influencing factor in the development of the career calling among children students (Tian et al., 2021). It has been established that parenting styles shape and predict students' career calling (Tian et al., 2021). This is due to the fact that parenting styles are important in students because they determine, to an extent, the parental engagedness that would positively affect the children's

academic achievement (Fakude & Maseko, 2024). An affectionate parenting mode will make students feel warmth and respect, enhance their affects and add value and meaning to their careers apart from themselves (Dik et al., 2009). This can motivate the learners to focus on their future careers in order to enhance their vocations (Tian et al., 2021).

Previous research, such as that conducted by (Tian et al. 2021), has shown that parenting style can be an important predictor in shaping career calling in students. They emphasized that loving parenting styles, such as warm and supportive parenting, play a significant role in building students' self-respect, value and meaning in their careers. In addition, this study also linked parenting styles with parental involvement that can improve students' academic achievement. Other studies, such as the one by Fakude and Maseko (2024), support this view by showing that the level of parental involvement in parenting has a direct impact on students' motivation towards education and, ultimately, their careers. However, my research findings offer a new angle that has not been widely discussed by previous studies, namely how students' perceived parenting styles can be influenced by contextual factors such as local culture, socio-economic level and access to education. In this study, it was found that not only is a warm and supportive parenting style important, but also consistency between parents' expectations and the emotional support they provide. For example, students who felt that their parents had clear career-related expectations but provided consistent emotional support showed stronger career calling than students who felt their parents' expectations were not matched by emotional support. In addition, this study also identified that the influence of parenting style on students' career calling differs between students from urban and rural areas. In rural areas, limited access to quality education and career information causes students to rely more on the role of parents in shaping their career motivation. In contrast, in urban areas, students tend to have more external resources that can replace the role of parents, such as guidance from school or career information from digital media. The position of this research finding is to expand the understanding of the role of parenting styles in shaping students' career calling, by emphasizing the importance of contextual factors that have not been widely discussed in previous research. Thus, this study makes a new contribution by showing that the impact of parenting style is not universal, but rather influenced by the social, cultural and economic conditions surrounding the student. This opens up opportunities to design more contextualized and relevant interventions, especially in supporting the development of career calling of students in various backgrounds.

## CONCLUSION

As per the stages of the literature review and bibliometric analysis that have been performed, it can be stated that there are three suitable figures for the job calling definition referent: Duffy & Dik, Praskova, Zhang. Hence, based on the literature review that has been carried out in this study categorizes antecedent variables influencing career calling among students into individual factors, psychological factors, and environmental factors. Based on a systematic literature review, it was found that 13 variables predicted career calling, including character strengths, core self-evaluation, trait gratitude, self-concept, career exploration, career adaptability, career engagement, self-reflection, life planning, life meaning, personal growth initiative, vocational self-clarity, and parenting style. Based on these results, antecedent variables that can affect individual career calling from external sources still need to be researched compared to variables related to internal sources. The result is also relevant to bibliometric analysis, which shows that career calling has a strong relationship with concepts related to intrinsic motivation and personal values and is influenced by social challenges.

These findings can be material for further research to examine interventions to increase students' career vocations. Further research should expand the scope by including underrepresented variables such as cultural and socioeconomic backgrounds and exploring the role of part-time work experience or internships in shaping career calls. On the other hand, longitudinal studies are needed to understand the development of career calling over time and to identify factors that can predict student career calling more broadly.

## ACKNOWLEDGEMENTS

The research team expressed their deep gratitude to the various parties who contributed significantly to this research. First, thanks are addressed to the State University of Surabaya, in this case, through Lembaga Penelitian dan Pengabdian Masyarakat (LPPM) for significant financial support through competitive research grants in 2024. This support allowed the research team to conduct the research smoothly and obtain optimal results. In addition, the research team also expressed their appreciation to all parties who were not directly mentioned for their valuable contributions. With the contributions of all parties already mentioned, this scientific article was possible. We hope that this research contributes positively to the development of science.

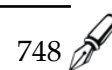
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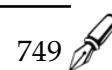
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