

# Linking Boundaryless Career Orientation and Career Optimism: The Moderating Role of Career Decision Self-Efficacy and Career Adaptability

Santa Grace Meybiola Silalahi <sup>1</sup> Andi Ina Yustina <sup>2\*</sup> Andrianantenaina Hajanirina <sup>3</sup>

<sup>\*1</sup> Universitas Presiden, Bekasi, 17530, West Java, Indonesia

<sup>2,3</sup> Universitas Presiden, Bekasi, 17530, West Java, Indonesia

Email

[a.inayustina@gmail.com](mailto:a.inayustina@gmail.com) <sup>2\*</sup>

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## Abstract

This study investigates the correlation between boundaryless career orientation and career optimism and examines the potential moderating roles of two variables - career decision self-efficacy and career adaptability. A survey was conducted on 192 accounting students in Indonesia to collect data. The study used structural equation modelling with Smart-PLS to analyze data that are selected accordingly. The results indicate a positive association between boundaryless career orientation and career optimism, suggesting that career adaptability and optimism can be potential measures for students' attitudes and behaviors at graduation. This study also reveals that career decision self-efficacy and career adaptability effectively moderated the relationship between the two variables. Therefore, universities can provide an overview of the world of work by organizing company visits to expose students to the true process of business, the work environment, and especially, the world of work. Such exposure can encourage students to form positive attitudes toward their career decisions. This is, as with the career landscape rapidly changing, young people are increasingly adopting a boundaryless career orientation. Indeed, young graduates are focusing on expanding their careers externally through employability. Indonesia's millennial generation has also embraced this approach. It is now common for millennials to work two or three jobs simultaneously.

**Keywords:** Boundaryless Career Orientation; Career Decision Self-Efficacy; Career Adaptability; Career Optimism

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## Introduction

According to the study conducted by Gerli et al. (2015), previous research has not fully addressed the competencies required for developing boundaryless careers (Kost et al.,

2020; Nilawati et al., 2023). Additionally, although adaptability is crucial in today's job market, the role of self-efficacy and adaptability in moderating the relationship between boundaryless career orientation and career optimism has not been explored. It is worth noting that students nowadays tend to choose careers that are not necessarily related to their background due to job search competition and opportunism. The purpose of this study is to investigate how individuals can cultivate and enhance career optimism, and to gain insights into boundaryless career orientation. Specifically, the study aims to determine whether there is a positive relationship between boundaryless career orientation and career optimism, and whether career decision self-efficacy and career adaptability moderate this relationship.

Now with existing social economic contingencies, young people are expected to confidently pursue their career goals with positive outcomes (Ginevra et al., 2016, Creed et al., 2021). Young people like undergraduate students who will be preparing to pursue their career goals should be prepared to face an increasingly competitive labor market. Changes that arise and occur today trigger a paradigm shift that exists with the current condition of everyone in developing his career (Rojewski et al., 2017). The existence of technological advances that are increasingly developing and changes in organizational structure make changes to career patterns that cannot be predicted. According to Guan et al. (2019), that not only is the increase in competition in the world of work or organizations, but this rapid technological advancement has also made future careers less predictable. Increasing attitudes without limits and making an individual only attach importance and focus on subjective career success by doing individually successful career development (Wiernik & Wille, 2017) as it enhances students to career path (Pshembayeva et al., 2022).

The existence of a career landscape that is increasingly changing rapidly, boundaryless career orientation is widely adopted by young people or young workers. As mentioned by Santos et al. (2020), they argue that young graduates are now adopting boundaryless careers within themselves to focus on expanding their careers in external employability. Indonesia's millennial generation has also adopted a boundaryless career, Rob Bryson as country manager of professional recruitment company Robert Walters Indonesia said that it is very common for millennials today to have two to three jobs at once (Kompas.com, 2017). Individuals who adopt boundaryless careers on themselves, they are likely to choose not to stay in one organization. According to Sullivan & Arthur (2006), that boundaryless individuals will choose to cross organizational boundaries and relationships beyond borders in managing their careers to pursue career growth opportunities. Career attitudes lately have emphasized career mobility and appear to emphasize to transcend organizational boundaries or called boundaryless career (Santos et al., 2020). The individual has the mind-set that a person has a responsibility in making decisions for a future career and can manage his or her own career by not depending on

other people or organizations.

Understanding the impact of such a career orientation on individual careers can help individuals or employees to increase their satisfaction levels, have adaptive behaviors and increase self-esteem when they want making decisions for future occupation (Li et al., 2019, Gong et al., 2023). Career orientation is not new, it is currently the right thing to offer updates to valid scale to expand the framework with this seamless career (Bravo et al., 2017). From protean and also boundaryless career terms represents a lot has happened in the working environment lately that is none other than included in contemporary careers. As stated by Bravo et al. (2017), that career orientation shows that self-direction and internal values are what drive career decisions in this era of protean career and boundaryless career (Pshembayeva et al., 2022).

According to Chan & Mai (2015), that in recent years, career adaptability is needed by every individual in developing his career so that individuals can face various challenges in the course of his career or work. In improving career adaptability in college students, individuals must expand their social connections, or they can enlarge their circle of friends with many people during the transition (Wang & Fu, 2015). By expanding the social environment, individuals will be able to explore the social support they receive during their times of development and change. People who have good ability in career adaptability are ready to face everything in their career and this individual has a positive outlook and has optimism about the future of his career. Hirschi et al. (2015), presents that a person who is willing and able to adapt to changing conditions or environment, then it will positively affect the results of their adaptation that is in accordance with their work role. Adapting to the new workplace or work environment is a major task especially for graduate students who are just starting their first year in work. While getting to know the work environment, students who start the first year of their career must form a qualification for themselves in their work.

In consonance with Chui et al. (2020), they propose that career adaptability will be a mediator that has the potential to explain the relation among boundaryless career toward career optimism. Not only career adaptability, career decision self-efficacy is also proposed in previous research to be a mediator and as an important thing in making futurity occupation. Further, career decision self-efficacy makes individuals less likely to apply skills related to their career and are always looking for opportunities for their career (Penn & Lent, 2018). Career decision self-efficacy makes individuals less likely to apply skills related to their career and are always looking for opportunities for their career (Penn & Lent, 2018). According to Lent & Brown (2013), it can be interpreted that CDSE as essential and becomes conceptual motivation in making choice for futurity occupation. Individuals who have a boundaryless career in him usually show that he is a person who has confidence in his ability to choose his future career. Individuals with full confidence in their abilities and involved in career decisions are expected to continue to be motivated

in making their career decisions (Storme et al., 2019). Based on Li et al. (2019), that an individual who has a high career decision self-efficacy in himself will feel there are fewer obstacles to the career path. The individual is also likely to engage in career explorations that eventually make him confident in his career and have positive expectations on future career outcomes (Chui et al., 2020).

A recent study showed a negative influence caused by covid-19 which affects the career optimism of students (Biber et al., 2020). In employees building career optimism is one of necessary point because it can help to improve employee performance (Garcia et al., 2015). Not much different from employees, optimism in the conditions of the student's career growth has a positive relationship in his involvement with career planning actions. Optimism helps students on career planning as in the career exploration and vocational development of an individual. According to Wilkins-Yel et al. (2018), from his research showed that career adaptability has positively relation with educational contentment and precision. Satisfaction with his academics makes the students less likely to make him optimistic that he will finish his studies and continue his career planning. Career adaptability owned by students can be influenced by self-efficacy and optimism (Karacan–Ozdemir & Yerin Guneri, 2017). Optimistic students are likely to have high self-efficacy and career adaptability in their own future career choices or decisions and the student is confident of overcoming obstacles that may exist in his future career.

The study was conducted to try to illustrate the relation among boundaryless career along with career optimists to undergraduate who have been studied previously. Research conducted previously by Chui et al. (2020), shows how protean career influence undergraduate regarding their career plan. It's a suggestion from previous research to illustrate the relation amidst boundaryless career & career optimism, because boundaryless career is one of the career orientations in addition to protean career. When someone has mastered many points of view by moving jobs or having a boundaryless career, someone will know better to make which career decision is right for him (Liputan6.com, 2019). Our data is collected from students with accounting majors in Indonesia, both public universities and private universities. This research explores the underlying relation of boundaryless career orientation with career optimism by evaluating and looking at the possible effects arising from the moderator of career decision self-efficacy and career adaptability.

According to Sullivan & Arthur (2006), boundaryless career orientation is where an individual has a mindset without limits (Kost et al., 2020). These individuals imagine and consider themselves not limited to their career, they choose to pursue career opportunities or relationships outside the scope of their current career. boundaryless career indicates the circumstances of an individual liking where they have the opportunity to be moved or moved from an organization, job or from an area of expertise. As mentioned by Briscoe et al. (2006), if a person instills a boundaryless career attitude in himare people who are

enthusiastic to continue to create and also maintain an active relationship with people or things outside the boundaries of the existing organization (Nilawati et al., 2023).

Boundaryless career is also defined by where the individual who will manage the organization and other characteristics are the existence of organizational crosses or boundaries (Baruch & Vardi, 2016). Individuals have a willingness to have cross-border organizational relationships and pursue the existence of other job or career opportunities. An individual with a Boundaryless career will tend to seek opportunities from outside their current employer or organization. They will build many professional connections outside of the work environment or organization they have now (Stauffer et al., 2019). Individuals whose careers are supported by leadership motivation come by showing a boundaryless career attitude, while those driven by professional career motivation show a traditional career attitude (K. Y. Chan et al., 2012). In conformity with Uy et al. (2015), that the investigation conducted contains clear factors regarding boundaryless career attitudes (Kost et al., 2020).

As mentioned by Savickas & Porfeli (2012), give the understanding that career adaptability is a person's capability in dealing with all kinds of tasks and problems predictable, unpredictable, even because of changes that occur related to the role of work and working conditions (Ahmad & Nasir, 2023). According to Wilkins-Yel et al. (2018), that in students, this variable have a positive relationship to academic precision and satisfaction and it makes students less likely to be successful in their studies. In the academic process, students can face the challenges that exist and can increase a positive attitude with the capacity they have.

Career adaptability is the tendency of a people to have the ability to utilize and dominate future changes, responsibilities and comfort from new jobs and be able to overcome problems or obstacles that exist outside of career planning and job planning (Rottinghaus et al., 2005). The individual will be able to deal with unexpected things that may occur in his career planning and he is able to adjust and adapt to everything that happens in shaping a career and that happens if the person has career adaptability in that person. Conforming to Spurk et al. (2016), says there is a positive relationship that can be seen from career adaptability to perceived marketability of a person. Perceived marketability is the belief that individuals have in the value of themselves as well as their ability to work or be active both within and outside a group or organization (Ahmad & Nasir, 2023).

According to Savickas & Porfeli (2012), that development in an individual is driven how the person can adjust himself to the changing state by the way there is a construction on him or even others. Career construction theory shows and conceptualizes that CA is a thing that becomes an important source embedded in a person who is useful in to deal with future careers or current careers. Draw on the CCT that it can be a medium for mediation that could potentially explain the relationship between the above variables.

One of the central constructions in career construction theory (CCT), career adaptability is interpreted as the origin of a person in overcoming all changes, tasks in the current career and career in the future (Savickas & Porfeli, 2012).

As mentioned by Savickas & Porfeli (2012), that someone who has career adaptability will be able to form his own identity, they have a variety of skills and are also more dynamic in choosing a job choice. Self-confidence, curiosity and control are things that become a source of strength in individuals that can be used as a force to be able to adapt to career changes that occur today or in the future. Career adaptability have a connection to undergraduates in pursuing the fulfilment of their academy or presence (Wilkins-Yel et al., 2018). Students who can overcome their academic challenges can improve their positive attitude to the academic process, which is where every student needs themselves for their career journey later so that they are always optimistic in their career achievements.

According to Penn & Lent (2018), reveal this career decision self-efficacy CDSE moderating personal variables and also concerned to context to career goals, career choices and outcomes. By placing a CDSE in the individual will trigger him to think positively and optimistically in the future career they want. With self-efficacy present in an individual, it can help the person in a more capable way to make good and right decisions on him compared to his colleagues who show a low career decision self-efficacy in him (Ahmad & Nasir, 2021 ;Park & Park, 2020). A person can be said to have self-efficacy career decisions when the person has good confidence and can make decisions for the expected future career. Currently, the results of a low or high career decision self-efficacy that an individual has will be indicated by his ability to make decisions (Abdalla, 1995).

Formed on social cognitive career theory (SCCT), CDSE approaches to the attitude of a person who believes that he will succeed in overcoming everything that is mandatory and necessary in making decisions for a career in the future (Betz et al., 1996). According to Penn & Lent (2018) in SCCT, CDSE gives the influence of mediation to personal variables, matters concerned on choices and on career goals and outcomes. Every individual has the right and control to decide a career or a good thing in that person. Social cognitive theory explains that an individual In fact, someone is an active party in carrying out and making their own choices to advance the career progress of an individual (Ho & Sum, 2018).

Based on Taylor & Betz (1983), that career decision self-efficacy is a matter of personal beliefs relating to the ability of an individual to navigate the activities concerned in career decision making, for example by gathering information about a job and choosing a goal. Self-efficacy can be called something that can be related to self-adjustment and also how a person is confident in his ability to deal with something or master a condition. Self-efficacy is what can predict an individual's academic achievement, choices, and



performance index as evidence that he or she has succeeded in adaptability or mastering the condition (Rudolph et al., 2017). From previous research, career decision self-efficacy shows it has something to do with something like career decisions and commitments and also to something that leads to aspirations in terms of work (Rogers & Creed, 2011).

Optimism is defined as the thing inherent in man, where humans in general will expect positive things or events that happen to him rather than negative things in the future (Sharot, 2011). Expecting a lot of positive things to happen in his life now and in the future, the human being has a high level of optimism attached to it. As stated by Nguyen et al. (2016), that employees who have optimism have stronger leadership (related behavior) than pessimistic employees. In this case optimism indicates that it acts as a resource that makes employees successful without help from anyone. According to Santilli et al. (2017), that a person is supported by career optimism to give understanding the reasons why they are satisfied in their careers, jobs, and even their lives. Career optimism careers are used to explain why an individual can give themselves encouragement in seeking future career opportunities and students who will enter the workforce will have a positive attitude to their future career prospects. People like career scholars explain that a high level of career optimism will make individuals look new at their career opportunities realistically (Kim et al., 2014).

Career Optimism is the tendency of an individual in expecting maximum and best results or the person focuses on every good thing that exists in every process of forming his career (Rottinghaus et al., 2012). According to Haratsis et al. (2015), that an individual who has optimism with career potential and is interested in the future of their career, will feel that he or she is on a path to career success and they will jump in and engage in learning that leads them to the future of their dream career. People who are perceived and viewed as very optimistic and confident with his future desires or his career life then the person will take the right school with his goals and they also really like and enjoy with the path or direction of their own career choices (McIlveen et al., 2013). By having career optimism in him even having a high level in the person will make him confident with the future career choices he has already decided, the individual will tend to focus on the development of his future career because he is interested and very optimistic about his dream career.

Aside from protean career, Boundaryless career is a career orientation that is now attracting research attention that can be expanded and developed (Bravo et al., 2017). Individuals with boundaryless careers will usually be happy if they can work on something or project with people from different organizations and are very enthusiastic about new situations with new experiences that can be obtained from outside the organization (Uy et al., 2015). Such people are very involved with new projects, situations and experiences because the individual has a mindset without limits including his career. With many changes that arise in their careers by engaging in situations and even new

experiences, individuals are expected to have optimism and commitment in carrying out their work to show positive results. Optimism will tend to make employees to change so that employees can face all changes that occur in their work and show positive behavior in the work environment (Kool & van Dierendonck, 2012).

Individuals who have career optimism in themselves will help themselves to improve their performance in doing work (Garcia et al., 2015). One of the main parts is career optimism that must be formed in students because they must know career optimism and improve it in themselves to prepare for a positive career future. Career optimism is very important to be built on every employee because it will be able to help employees in improving their performance (Garcia et al., 2015). Therefore, it is very basic for a person to build career optimism in themselves including starting from the students to help him prepare for a positive future in his career planning. An optimistic attitude in a career is very important especially in achieving the desired career and a better career by being able to adjust to abilities or competencies and can also face changes that occur in future careers (Kost et al., 2020; Nilawati et al., 2023).

**H1:** Boundaryless career orientation is positively related to career optimism.

Boundaryless career is something that is managed by an individual himself rather than concerned with the organization, indicated by the cross of the organization and also full of uncertainty in higher employment (Baruch & Vardi, 2016). A person with a boundaryless career in himself can free the individual to make their choices as for the future of his career and they can choose for themselves in developing their skills. As believe by Hirschi & Valero (2017), that an individual who does not feel that he has control for himself in his or her career, it will be difficult for him to increase his sense of competence in themselves as well as have a low degree of efficacy also in themselves. However, people who have control over themselves in their career will be able to make decisions on their careers because they have a high degree of efficacy in them (Pshembayeva et al., 2022). These people are they are also people who participate in the search for something that can increase self-efficacy in themselves to make a big decision for their career (Cheung & Jin, 2016). By having control over their own career, individuals with boundarylessness on their career will be able to choose their future career according to what he or she wants because they have a great level of self-efficacy which person has in him to decide what career they want. As stated by Choi et al. (2015), that the belief in self-efficacy is a trust that a person has regarding his capability to make definite decisions. Thus, a person with a career decision self-efficacy in himself will refer himself to confidence in his own career decision making. Protean career orientation has been shown to have a positive relationship with CDSE (Li et al., 2019), this study will show whether boundaryless careers that are also part of career orientation have a positive



relationship also to career decision self-efficacy (Ahmad & Nasir, 2023).

**H2:** Boundaryless career orientation is positively related to career decision self-efficacy.

Career adaptability is the ability that a person has when their social and psychological aspects are always moving with the times to face and complete work transitions, personal trauma, and vocational development tasks (Li et al., 2019). According to Savickas & Porfeli (2012), mentions that there are some items that are seen as things that can help people adapt to changing circumstances and become resources that an individual must have to prepare for his career, namely attention, inquisitiveness, and reliance. Career adaptability should have a notable role for individuals in understanding the processes in a person's career judgment-making. With the concept of boundaryless career orientation that shows the existence of uncertainty and close nonconformity in employee and employer relationships, it takes adaptability and flexibility competence to maintain and develop this existing career (Rojewski et al., 2017). Career construction theory (CCT) provides a new perspective on the relationship between boundaryless career with career optimism which is career adaptability (Park & Park, 2020). Based on Savickas & Porfeli (2012), that the development of everyone is relate to impulses such as being able to adjust to all ever-changing circumstances in a self-construction way and the unification of the personal environment. In today's era, the ability of individuals to cope with changes that exist and occur today is very important (Coetzee & Harry, 2015). The changing work environment these days makes everyone must be able to overcome it, especially in pursuing a future career. Students must know and have career adaptability in themselves to prepare themselves for the future career they want (Ahmad & Nasir, 2023; Kost et al., 2020; Park & Park, 2020).

**H3:** Boundaryless career orientation is positively related to career adaptability.

In social cognitive career theory, it is said that CDSE (career decision self-efficacy) acts as a mediation variable amongst personal matter and related career outcomes such as career optimism (Penn & Lent, 2018). The existence of factors that make an individual have a career decision self-efficacy in him makes the individual will think optimistically about the future career they want. Career optimism will be formed in the individual by embedding career decision self-efficacy on him as a variable that mediates dependent and independent variable. People who believe in decisions taken about their goals and career prospects will lead him to positive results with career optimism that will exist (Ahmad & Nasir, 2023; Park & Park, 2020). According to Li et al. (2019), that a person who has a high career decision self-efficacy will make himself feel that there will only be fewer

obstacles that may exist in his future career. Therefore, such individuals will tend to always be positive and have career optimism on themselves. From recent studies show the positive relation of career decision self-efficacy on career optimism (Eva et al., 2020). In this research, researcher wanted the part of career decision self-efficacy in relationships among dependent and independent variables contained in this study. Through CDSE and career optimism that exists in someone with a high level as well, when taking a break in the career can form persistence in the desired career and chosen to be greater (Garcia et al., 2015).

**H4:** Career decision self-efficacy is positively related to career optimism.

In this era, everyone is faced with every change that occurs and must adjust himself to these changing situations including regarding future careers. According to Johnston (2018), that the adaptation that individuals make in response is an action intended for the planning and exploration of the individual's career. It requires career adaptability in a person because the person will look positively at the future of his career and that is what makes the individual in still a sense of career optimism in him for his future career. Career optimism is positively connecting with career adaptability and that has been demonstrated by previous research (Delle & Searle, 2022). The optimism embedded in an individual will stimulate him to show a good commitment to change, the individual can show positive attitudes and behaviors and be able to face changing conditions including in his work environment. According to Kool & van Dierendonck (2012), that career optimism provides a good and positive picture of the future, able to face challenges or obstacles and be able to adjust in work-related situations. Individuals who have a high level of career optimism and confidence in himself will have a positive outlook on the future of his career and he is able to adapt to what happens in his future career.

**H5:** Career adaptability is positively related to career optimism.

Traditional organization careers are historically associated with linear trajectories and rather, the boundarayless career orientation with unstable or unbound identities that usually go beyond existing work settings or patterns (Rojewski et al., 2017). The boundaryless career orientation emphasizes that they are individuals for all meanings in general or there is independence in themselves rather than dependence on the structure of the traditional organization career and principle (Gubler et al., 2014). By showing individuals with boundaryless career orientation who suppress themselves individualistically and take over their own development for their own careers, those individuals typically have a higher scale of career decision self-efficacy. According to Hirschi & Valero (2017), mention that for people who have low self-efficacy that makes

them feel unable to determine their own desires as in terms of career, then the person will find it difficult to determine their own qualifications. Another thing with people who have a boundaryless career on him, they tend to know what they want including in making decisions for his career so that he also knows to improve the qualifications in themselves. Furthermore, they will also often direct themselves to better know what they want to do and that can make the individual improve their career decision self-efficacy (Cheung & Jin, 2016).

**H6:** Career decision self-efficacy moderates the positive relationship between boundaryless career orientation and career optimism.

According to Arthur (2014), that boundaryless career is a movement that crosses boundaries looking for a separate employer or can be said to be people in their careers who may feel a future without limits and despite structural constraints. A person who has a boundaryless career in him is a person with a career that can reach several organizations or sectors and not just one. Another feature is that such people do not have a specific career space, but they have several different scopes. The role of career adaptability is very influential for people who have boundaryless career orientation on him because they must deal with a scope or environment that is always different in their career. As stated by Ocampo et al. (2018), that the existence of an adaptive career attitude will be characterized and shown by readiness in employees in the transition process or changes that occur both related to work within an organization and outside the organization. People who have a good adjustment to all conditions or environments that may be on the career trip with their own ability indicate that the person has a good career adaptability in him. All the effort and control that a person does in achieving his future career will form confidence in him in his future career that is worthy of the goalkeeper. When a person has a good career adaptability, directly it makes a positive outlook on career prospects, and it will make a sense of career optimism formed in him. Career optimists have a positive outlook or picture for the future and see an obstacle as a challenge which he was able to go through to pursue the desired goals and careers (Kool & van Dierendonck, 2012).

**H7:** Career adaptability moderates the positive relationship between boundaryless career orientation and career optimism.

## Research Design and Method

The questionnaire will be distributed to respondents (undergraduate accounting students) via link. Researchers use this method to make it easier for researchers to distribute questionnaires to students and questionnaires will automatically collect after

respondents have finished giving their answers. Questionnaires created and distributed to respondents using two languages are Indonesian and English. In this study, researchers used sampling methods from Hair et al. (2010) to determine the sample size. The independent variable used in the study is boundaryless career, which will be measured using thirteen questions taken from (Rojewski et al., 2017). Researchers measured using a 5 point Likert-type scale which is 1 signifies "strongly disagree" and 5 signify "strongly agree". The sample question of this variable is "I enjoy working with people outside of my circle of friends".

The moderating variable used in the study is Career Adaptability and Career Decision Self Efficacy. For Career adaptability was measured with a scale consisting of eleven items and it was adopted from (Rottinghaus et al., 2005). Researchers measured using a 5 point Likert-type scale which is 1 signifies "strongly disagree" and 5 signify "strongly agree". The sample question of this variable is "I can adapt to change in the world of work". Meanwhile, for Career Decision Self-efficacy was measured with a scale be contained of eight items adopted from (Ho & Sum, 2018). The sample question of this variable is "I am able to choose a career that will fit my interests". For the moderating variable, researchers measured using a 5-point Likert-type scale which is 1 signifies "strongly disagree" and 5 signify "strongly agree". Another variable is Career Optimism which is a dependent variable. This variable was measured using eleven items and it was adopted from (Rottinghaus et al., 2005). The sample question of this variable is "I get excited when I think about my career". Researchers measured using a 5-point Likert-type scale which is 1 signifies "strongly disagree" and 5 signify "strongly agree".

SEM (Structural Equation Model) - PLS (Partial Least Square) is a statistical analysis used by researchers to analyze the relationship between variables with each other or with indicators. Researchers choose to use SEM-PLS because this type of statistical analysis can operate with large samples or small samples but can also work on complex construction as well (Sarstedt et al., 2014). In testing complex and multilevel hypotheses, many researchers choose to use SEM. SEM is commonly used to describe latent variable hypotheses with their indicators, between latent constructs or analyzing measurement errors directly. Researchers use Smart-PLS 3.0 software to test the relationships between variables or estimate even if they use small samples that can help with complex research models.

## Results and Discussion

### *Statistical Result*

Researchers spread questionnaires to students using existing social media. Researchers send G-forms that have been created through social media applications such as Line, Whatsaap, Telegram, Instagram, LinkedIn, and others. In this study, as many as 600 questionnaires were distributed to accounting students in Indonesia, both private

universities and public universities. Of the number of questionnaires distributed, the questionnaires that were successfully filled out by the respondents were a total of 192 questionnaires. In the study there is a bias that makes researchers must throw as many as 54 questionnaires, so that the total data that can be used by researchers as many as 138 questionnaires. From the questionnaire collected, there were 25% of respondents with male gender or 34 people and 75% of respondents with female gender or as many as 104 people. Most of the respondents who filled out the questionnaire were accounting students who were 21 years old. From the entire data available, respondents with the age of 18 years there are 5% with a total of 7 people, age 19 years there are 9% with a total of 13 people, age 20 years there are 29% with a total of 40 people, age 21 there are 46% with a total of 64%, age 22 there are 8% with a total of 11 people, age 23 there is 1% with a total of 1 person and lastly for the age of 23 there is 1% with a total of 2 people.

Furthermore, respondents who were students from public universities with a percentage amounted to 32% with a total of 44 people and for students from private universities with a percentage of 68% with a total of 94 people. Respondents who were in the first year amounted to 7 people (5%), second year amounted to 15 people (11%), and third year amounted to 36 people (26%), and finally for the final year amounted to 80 people (58%). Details for the demographic data of the respondents can be seen in table 1.

**Table 1. Demographics Data**

Descriptions	Frequency (n)	% of Respondents
<b>Gender</b>		
Male	34	25%
Female	104	75%
<b>Age</b>		
18	7	5%
19	13	9%
20	40	29%
21	64	46%
22	11	8%
23	1	1%
24	2	1%
<b>University Based</b>		
State University	44	32%
Private University	94	68%
<b>Year of Study</b>		
First year	7	5%
Second year	15	11%
Third year	36	26%
Final year	80	58%

In descriptive analysis this will show the mean and also SD (standard deviation) for all variables such as independent variable is boundaryless career orientation (BC). Then there is dependent variable is career optimism (CO). The last for moderating variables is career adaptability (CA) and career decision self-efficacy (CDSE). Table 2 will show the mean and standard deviation for each variable.

**Table 2. Mean and Standard Deviation**

Items	Mean	SD
BC	3.52	1.24
CDSE	4.21	0.80
CA	4.05	0.85
CO	3.86	1.11

In quantitative studies, validity becomes an instrument used in research to measure the concepts contained in the research. The researchers had a disengaged and convergent test that aimed to assess the validity of the model. As stated by Hair et al. (2014), that researchers used outer loading and AVE to test convergent validity. According to Hair et al. (2019), that convergent validity can be supported if on each indicator it has a value of more than 0.70 and for a significant p value loading less than 0.05. If the loading value of 0.4 to 0.7 can affect the average variance extracted (AVE) value to be lower than 0.5 then the researcher can lower it or remove it.

**Table 3. Lower Order Convergent Validity**

Items	Loading **	AVE**
Boundaryless Career		
BC 2	0.779	0.541
BC 4	0.702	
BC 5	0.686	
BC 8	0.770	
Career Decision Self-efficacy		
CDSE 1	0.691	0.591
CDSE 4	0.734	
CDSE 5	0.799	
CDSE 7	0.843	
Career Adaptability		
CA 2	0.811	0.600
CA 4	0.717	
CA 5	0.783	
CA 9	0.786	
Career Optimism		
CO 1	0.844	0.669
CO 2	0.835	
CO 10	0.775	

\*\* Significant at  $p < 0.05$

In this study, the researcher had to discard some indicators because they influenced the value of the extracted average variance (AVE). Where when the AVE is on a par to or bigger than 0.5, it can be adequately bound (Hair et al., 2019). It is indicated from Table 4 that the average variance extracted value of this study passed the minimum or adequate criteria because everything was above 0.5. Not only shows average variance extracted (AVE), Table 3 also shows outer loading that has a value above 0.5. From the table, it indicates that the AVE value of the smallest is 0.541 (boundaryless career orientation)) and the highest AVE value is 0.669 (career Optimism). According to Heale & Twycross (2015), that reliability is the ability of an instrument in a study to measure the consistency



and accuracy of measurements. A variable is said to be adequate or reliable, judging from the extent to which the answer to the question is always consistent or stable. In this study, researchers used cronbach's alpha ( $\alpha$ ) and composite reliability (CR). To decide the internal consistency of an instrument, cronbach's alpha is the most common test to use. If cronbach's alpha value is on a par to or above 0.7 then it is acceptable, but if cronbach's alpha value is deficient than 0.6 then it is not good. The application of composite reliability (CR) values is a rare one to analyze measurement models on the reliability of internal consistency (Hair et al., 2019). If the composite reliability (CR) value is between 0.7 - 0.9 then it can be estimated that it is the ideal value. Table 5 indicates that cronbach's alpha value is good because it has a value above 0.7 and for composite reliability (CR) which is ideal because the value is between 0.7 - 0.9 which meets the criteria and is considered valid.

**Table 4. Reliability of Lower-order**

Items	$\alpha$	CR
BC	0.724	0.825
CA	0.778	0.857
CDSE	0.769	0.852
CO	0.753	0.858

Researchers will conduct a discriminant validity test after conducting a convergent validity and reliability test. In this study, researchers used Fornell-Larcker criteria following (Hair et al., 2019). Fornell-Larcker compares the square roots of the AVE with the correlation of variables in the same column. The square value of the extracted variance average (AVE) should be bigger than the value of other constructions or variable correlations. As stated by Fornell & Larcker (1981), that if the percentage of the square root of AVE is higher than the relation value among variables that are in the same column then the study is considered to have valid discriminants. Table 5 shows the results of the discriminant validity test using the Fornell-Larcker criteria.

**Table 5. Discriminant Validity**

Items	BC	CA	BC*CO_CA	CDSE	BC*CO_CDSE	CO
BC	0.736					
CA	0.627	0.775				
BC*CO_CA	-0.205	-0.116	1.000			
CDSE	0.554	0.669	-0.118	0.769		
BC*CO_CDSE	-0.227	-0.115	0.687	-0.201	1.000	
CO	0.654	0.659	-0.252	0.699	-0.196	0.818

In this study, researchers conducted an analysis on structural models by looking at the influence between independent variables, namely boundaryless career (BC) and Career optimism (CO) as a dependent variable. This is done to see if boundaryless career as an independent variable affects career optimism. Researchers will conduct tests for the collinearity and the coefficient of determination (R<sup>2</sup>) at this later stage. At this stage to perform the collinearity test, the tester uses The Inner Variance Inflation Factor (VIF).

This model must be highly regarded because so as not to deviate from the results of regression (Hair et al., 2019).

Table 6. Inner VIF Values

Items	VIF
BC	1.801
BC*CDSE_CO	1.972
CDSE	1.965
BC*CA_CO	1.919
CA	2.213

The next step that the researchers took was to look at the R-Square (R<sup>2</sup> of 0.630 value). This value shows that the R-Square value in career optimism is 0.630 which means that the value is still relatively moderate. Because if the value of R-Square (R<sup>2</sup>) is between 0.75 then it is considered substantial, some between 0.50 is considered moderate, and there is between 0.25 considered weak (Hair et al., 2019). The value of R-square (R<sup>2</sup>) which ranges from 0-1, which means that the higher value indicates the greater the presence of interpretive ability.

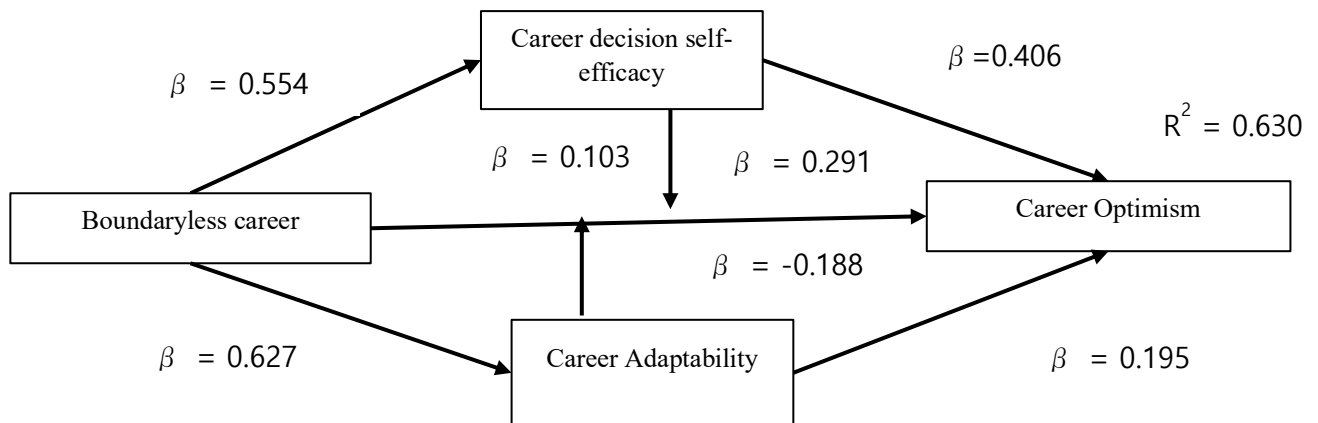


Figure 1. Full Model

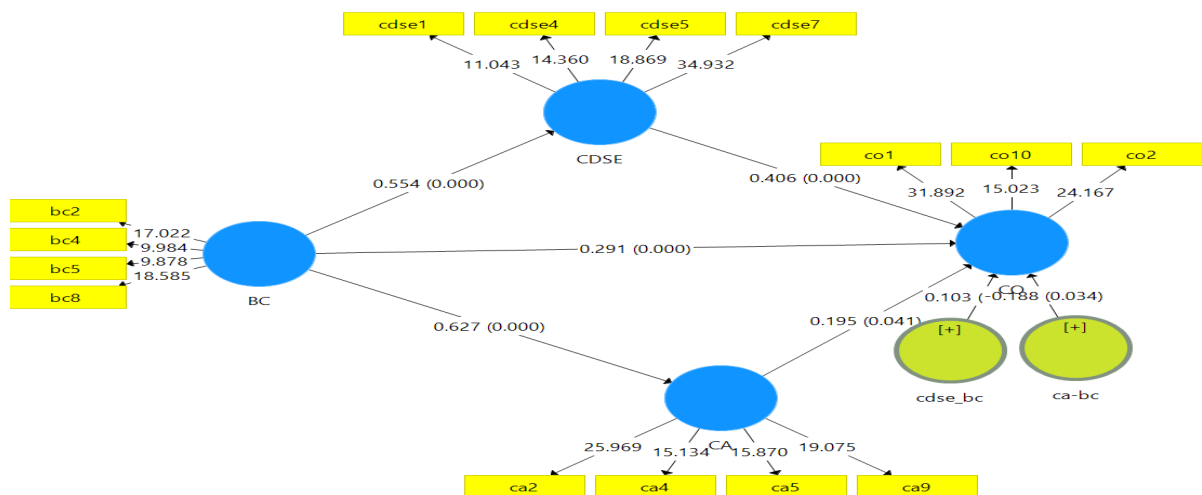


Figure 2. Full Model (SmartPLS)

The examiner performs the next step, which is to look at the value of the effect size. The effect size has a use for the tester which is to calculate how much the free variable affects the bound variable. If the value of the effect size is between 0.02 then it is categorized as weak, if it is between 0.15 then it is categorized as medium, and if the value is between 0.35 then it is categorized as strong (Hair et al., 2019). For this test, the value of f-Square in boundaryless career is at 0.127 which can be categorized as moderate.

The coefficient path is used by testers to test existing hypotheses as well as test whether the relationship between variables is significant or not. In table 6, the results of the coefficient path have been shown and indicate that hypothesis 1 is supported, boundaryless career orientation has a positive update on career optimism ( $\beta = 0.291$ ;  $p < 0.05$ ). In hypothesis 2, it is also shown that this hypothesis is supported, boundaryless career orientation has a positive effect on career decision self-efficacy ( $\beta = 0.554$ ;  $p < 0.05$ ). Likewise, in the next hypothesis, it is shown that hypothesis 3 is supported, boundaryless career orientation has a positive effect on career adaptability ( $\beta = 0.627$ ;  $p < 0.05$ ). Furthermore, hypothesis 4 is also supported, it is shown that career decision self-efficacy has a positive effect on career optimism ( $\beta = 0.406$ ;  $p < 0.05$ ). Then it was also shown that hypothesis 5 is supported, career adaptability has a positive effect on career optimism ( $\beta = 0.195$ ;  $p < 0.05$ ). For hypothesis 6, career adaptability acts as a moderating variable that strengthens the relationship between boundaryless career orientation and career optimism. in table 7 it is shown that hypothesis 6 is not supported ( $\beta = 0.103$ ;  $p < 0.05$ ). For hypothesis 7, career adaptability acts as a moderating variable that strengthens the relationship between boundaryless career orientation and career optimism ( $\beta = -0.188$ ;  $p < 0.05$ ).

**Table 7. Hypotheses Result**

Items	Path Coefficient	P Value	Supported
Direct Effect			
BC - CO	0.291	0.000	Yes
BC - CDSE	0.554	0.000	Yes
BC - CA	0.627	0.000	Yes
CDSE - CO	0.406	0.000	Yes
CA - CO	0.195	0.039	Yes
Indirect Effect			
BC*CDSE_CO	0.103	0.282	No
BC*CA_CO	-0.188	0.028	Yes

## Discussion

This exploration was conducted to test the intercourse between boundaryless career orientation and career optimism and there are also two other variables as moderator variables, namely CDSE & CA. This study uses undergraduate students, who are still active in learning, namely first-level students to fourth-level students. This research shows that boundaryless career orientation have a positive relationship with career optimism. With the concept of boundaryless career that can make the future of a career

unpredictable, individuals need to build confidence to reach the desired career peak. It is with this confidence that individuals can be expected to create other career-related opportunities that can be achieved in the future and positive circumstances about such future careers will foster career optimism in individuals (Ahmad & Nasir, 2021). Therefore, hypothesis 1 is supported.

The second hypothesis is also supported by stating that boundaryless career has a positive relationship towards career decision self-efficacy (Ahmad & Nasir, 2023). Li et al. (2019), mentioned that an individual who has a high career decision self-efficacy in himself will feel that he has only a few obstacles on his career path. An individual with a boundaryless career and a high career decision self-efficacy will be able to run well in his career path because he knows his capacity and has the confidence to take every right action related to his career. According to Abessolo et al. (2017), that boundaryless careers tend to value work related to autonomy and independence. Individuals can choose and decide on the path for the future career they want.

Undergraduate students are very important to know and explore how the picture of the career world where the individual will enter the world later, therefore an individual must have career adaptability in him especially in his early career. According to Chan & Mai (2015), that career adaptability skills are needed to face the various challenges that exist in the career sphere later and to improve well-being. Career adaptability will have a more mind-set for things that can help shape and run a subjective career, especially in the context of boundaryless career orientation. Hypothesis 3 is also supported.

Career decision self-efficacy owned by an individual will make him have the confidence to dare to take and carry out actions that are related to his career decisions. People who care about their future tend to be often involved in making decisions that determine the good and positive outcomes that exist in their future (Ahmad & Nasir, 2021). Situations that cause positive things about future careers show opportunities and achievements that lead to career optimism in the individual. Hypothesis 4 is supported by the fact that career decision self-efficacy has a positive relationship towards career optimism. It is also supported by Chatterjee et al. (2015), that career self-efficacy has a positive intercourse to career optimism.

Hypothesis 5 is also supported which states that career adaptability has a positive relationship to career optimism. According to Ginevra et al. (2017), that the positive attitude or optimism shown by the individual towards his future that can affect the individual's career adaptability. Persons who have an elevated level of career optimism in themselves will be able to shape their career and be able to participate in the work environment or career later which makes the individual can adapt or adjust to changes that happen in the scope of work later.

This study shows similar results to previous research that both moderator variables career decision self-efficacy and also career adaptability can mediate well the relationship

between protean career orientation and CO (Chui et al., 2020). Disparate from previous studies using protean career orientation as an independent variable, this study uses boundaryless career as an independent variable and the yields remain the same which shows that both moderator variables successfully mediate the relationship between boundaryless career and career optimism. For hypothesis 6 is not supported which states that career decision affect the relationship between boundaryless career toward career optimism. Therefore, Hypothesis 7 is supported which states that career adaptability affect the relationship between boundaryless career toward career optimism.

Based on the results of the study showing theoretical implications, this analysis was conducted to see and show the positive relationship between boundaryless career orientation and career optimism. Researchers conducted this study to answer the call of previous research to conduct further studies by changing the career orientation used previously, namely protean career orientation to use boundaryless career orientation as an independent variable (Chui et al., 2020). By using career decision self-efficacy and career adaptability as two mediator variables in this study and the results show that career decision self-efficacy and also career adaptability can mediate the relationship of boundaryless career to career optimism well. From this research we can find out and provide knowledge about boundaryless careers and other variables. Be able to know things such as individual awareness such as identity from oneself, how the ability to engage in decisions for oneself, the ability of an individual to adapt and also an attitude of optimism that affects career or self. According to McIlveen et al. (2013), that by bringing together knowing of the situation or world of work, career adaptability and also career optimism is made as a potential measure for students as a perception of attitudes and behaviors at graduation.

For practical implications, the study suggests that career decision self-efficacy and career adaptability as well as career optimism have important roles for students including in their career orientation. To be faced in situations that form career optimism in students, the university can provide an overview of the world of work by making a visit to a company to aim to show students the true process of business, environment and world of work. It can give students into situations that can give encouragement to students in forming career optimism and career decision self-efficacy and also their career adaptability. Visits or workshops given by the university can simplify the expansion of career orientation including boundaryless career orientation formed on them. In improving career decision self-efficacy and adaptability among students, universities can help provide activities or classes that make students in a place that can make them improve self-efficacy career decisions and adaptability.

In addition to providing classes or training, parties from the university can provide guidance to students such as lecturers provide direction or guidance to students in order to encourage students to set their career choices. It is a key for undergraduate students to

have career decision self-efficacy and career adaptability in them, so that the individual has the ability to prepare for his future career. It can all help students in preparing for the future and their readiness to face and overcome changes in their work in the future. Finally, this research is intended to help show and clarify the relationship between boundaryless career, CDSE, career adaptability, and career optimism.

## Conclusions

This study attempts to investigate the relationship between boundaryless career orientation and career optimism, with the moderating effects of career decision self-efficacy and career adaptability. The results showed that boundaryless career orientation was positively related to career optimism, and career adaptability acted as a moderator, strengthening this relationship. However, career decision self-efficacy did not have a significant moderating effect. While this study focused only on boundaryless career orientation, it still provides valuable insights into career development. Future research should consider other career orientations and expand the sample size. This study can help students better prepare for their future careers and improve their career decision self-efficacy and adaptability. Ultimately, this research contributes to a better understanding of how career orientations can impact an individual's career development. The study focused solely on boundaryless career orientation, and future research can consider other career orientations such as disengaged and traditional career orientation. Additionally, future research can expand the sample size by considering respondents from multiple organizations and countries. The researchers suggest that future studies can also use other career orientations to identify an individual's future career development and expand the findings in general. Despite its limitations, the study provides valid results and makes a significant contribution to readers.

## Reference

- Abdalla, I. A. (1995). Arab business administration students: attributes and career decision making self-efficacy expectations. *International Journal of Career Management*, 7(6), 27–35. <https://doi.org/10.1108/09556219510098082>
- Abessolo, M., Hirschi, A., & Rossier, J. (2017). Work values underlying protean and boundaryless career orientations. *Career Development International*, 22(3), 241–259. <https://doi.org/10.1108/CDI-10-2016-0167>
- Ahmad, B., & Nasir, N. (2021). Positive career shocks and career optimism: testing the mediating role of career decision-making self-efficacy. *Journal of Asian Business and Economic Studies*. <https://doi.org/10.1108/jabes-07-2021-0110>
- Arthur, M. B. (2014). The boundaryless career at 20: Where do we stand, and where can we go? *Career Development International*, 19(6), 627–640. <https://doi.org/10.1108/CDI-05-2014-0068>
- Baruch, Y., & Vardi, Y. (2016). A Fresh Look at the Dark Side of Contemporary Careers:



- Toward a Realistic Discourse. *British Journal of Management*, 27(2), 355–372. <https://doi.org/10.1111/1467-8551.12107>
- Betz, N. E., Klein, K. L., & Taylor, K. M. (1996). Evaluation of a short form of the career decision-making self-efficacy scale. *Journal of Career Assessment*, 4(1), 47–57. <https://doi.org/10.1177/106907279600400103>
- Biber, D. D., Melton, B., & Czech, D. R. (2020). The impact of COVID-19 on college anxiety, optimism, gratitude, and course satisfaction. *Journal of American College Health*, 0(0), 1–6. <https://doi.org/10.1080/07448481.2020.1842424>
- Bravo, J., Seibert, S. E., Kraimer, M. L., Wayne, S. J., & Liden, R. C. (2017). Measuring Career Orientations in the Era of the Boundaryless Career. *Journal of Career Assessment*, 25(3), 502–525. <https://doi.org/10.1177/1069072715616107>
- Briscoe, J. P., Hall, D. T., & Frautschy DeMuth, R. L. (2006). Protean and boundaryless careers: An empirical exploration. *Journal of Vocational Behavior*, 69(1), 30–47. <https://doi.org/10.1016/j.jvb.2005.09.003>
- Chan, K. Y., Ho, M. ho R., Chernyshenko, O. S., Bedford, O., Uy, M. A., Gomulya, D., Sam, Y. L., & Phan, W. M. J. (2012). Entrepreneurship, professionalism, leadership: A framework and measure for understanding boundaryless careers. *Journal of Vocational Behavior*, 81(1), 73–88. <https://doi.org/10.1016/j.jvb.2012.05.001>
- Chan, S. H. J., & Mai, X. (2015). The relation of career adaptability to satisfaction and turnover intentions. *Journal of Vocational Behavior*, 89, 130–139. <https://doi.org/10.1016/j.jvb.2015.05.005>
- Chatterjee, S., Afshan, N., & Chhetri, P. (2015). Exploring the Linkage Between the Components of Motivational Systems Theory and Career Decisiveness: The Mediating Role of Career Optimism. *Journal of Career Assessment*, 23(4), 597–614. <https://doi.org/10.1177/1069072714553081>
- Cheung, R., & Jin, Q. (2016). Impact of a Career Exploration Course on Career Decision Making, Adaptability, and Relational Support in Hong Kong. *Journal of Career Assessment*, 24(3), 481–496. <https://doi.org/10.1177/1069072715599390>
- Choi, B. K., Moon, H. K., & Chun, J. U. (2015). Impression management motive and voice: Moderating effects of self-monitoring, self-efficacy, and voice instrumentality. *Asian Journal of Social Psychology*, 18(3), 225–235. <https://doi.org/10.1111/ajsp.12095>
- Chui, H., Li, H., & Ngo, H. Y. (2020). Linking Protean Career Orientation with Career Optimism: Career Adaptability and Career Decision Self-Efficacy as Mediators. *Journal of Career Development*, 49(1), 161–173. <https://doi.org/10.1177/0894845320912526>
- Coetzee, M., & Harry, N. (2015). Gender and hardiness as predictors of career adaptability: An exploratory study among Black call centre agents. *South African Journal of Psychology*, 45(1), 81–92. <https://doi.org/10.1177/0081246314546346>
- Creed, P. A., Sawitri, D. R., Hood, M., & Hu, S. (2021). Career Goal Setting and Goal Pursuit in Young Adults: The Role of Financial Distress. *Journal of Career Development*, 48(6), 801–816. <https://doi.org/10.1177/0894845319897136>
- Delle, E., & Searle, B. (2022). Career Adaptability: The Role of Developmental Leadership and Career Optimism. *Journal of Career Development*, 49(2), 269–281. <https://doi.org/10.1177/0894845320930286>
- Eva, N., Newman, A., Jiang, Z., & Brouwer, M. (2020). Career optimism: A systematic review and agenda for future research. *Journal of Vocational Behavior*, 116(May 2018), 0–1. <https://doi.org/10.1016/j.jvb.2019.02.011>
- Fornell, C., & Larcker, D. F. (1981). Fornell, C. and Larcker, D.F. (1981), “Evaluating structural equation models with unobservable variables and.pdf. *Journal of Marketing Research*, XVIII(February), 39–50.

- Garcia, P. R. J. M., Restubog, S. L. D., Bordia, P., Bordia, S., & Roxas, R. E. O. (2015). Career optimism: THE roles of contextual support and career decision-making self-efficacy. *Journal of Vocational Behavior*, 88, 10–18. <https://doi.org/10.1016/j.jvb.2015.02.004>
- Gerli, F., Bonesso, S., & Pizzi, C. (2015). Boundaryless career and career success: The impact of emotional and social competencies. *Frontiers in Psychology*, 6(SEP), 1–17. <https://doi.org/10.3389/fpsyg.2015.01304>
- Ginevra, M. C., Pallini, S., Vecchio, G. M., Nota, L., & Soresi, S. (2016). Future orientation and attitudes mediate career adaptability and decidedness. *Journal of Vocational Behavior*, 95–96, 102–110. <https://doi.org/10.1016/j.jvb.2016.08.003>
- Ginevra, M. C., Sgaramella, T. M., Ferrari, L., Nota, L., Santilli, S., & Soresi, S. (2017). Visions about future: a new scale assessing optimism, pessimism, and hope in adolescents. *International Journal for Educational and Vocational Guidance*, 17(2), 187–210. <https://doi.org/10.1007/s10775-016-9324-z>
- Gong, Z., Gilal, F. G., Gilal, R. G., & Jahanzeb, A. (2023). Protean career orientation and job search: investigating the mediating role of career optimism in mentoring relationships. *Global Knowledge, Memory and Communication*. <https://doi.org/10.1108/GKMC-11-2022-0267>
- Guan, Y., Arthur, M. B., Khapova, S. N., Hall, R. J., & Lord, R. G. (2019). Career boundarylessness and career success: A review, integration and guide to future research. *Journal of Vocational Behavior*, 110, 390–402. <https://doi.org/10.1016/j.jvb.2018.05.013>
- Gubler, M., Arnold, J., & Coombs, C. (2014). Organizational boundaries and beyond: A new look at the components of a boundaryless career orientation. *Career Development International*, 19(6), 641–667. <https://doi.org/10.1108/CDI-11-2013-0143>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis: A Global Perspective*. Pearson Education.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24.
- Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106–121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Haratsis, J. M., Hood, M., & Creed, P. A. (2015). Career Goals in Young Adults: Personal Resources, Goal Appraisals, Attitudes, and Goal Management Strategies. *Journal of Career Development*, 42(5), 431–445. <https://doi.org/10.1177/0894845315572019>
- Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-Based Nursing*, 18(3), 66–67. <https://doi.org/10.1136/eb-2015-102129>
- Hirschi, A., Herrmann, A., & Keller, A. C. (2015). Career adaptivity, adaptability, and adapting: A conceptual and empirical investigation. *Journal of Vocational Behavior*, 87, 1–10. <https://doi.org/10.1016/j.jvb.2014.11.008>
- Hirschi, A., & Valero, D. (2017). Chance Events and Career Decidedness: Latent Profiles in Relation to Work Motivation. *Career Development Quarterly*, 65(1), 2–15. <https://doi.org/10.1002/cdq.12076>
- Ho, E. S. C., & Sum, K. W. (2018). Construction and Validation of the Career and Educational Decision Self-Efficacy Inventory for Secondary Students (CEDSIS). *Journal of Psychoeducational Assessment*, 36(2), 162–174. <https://doi.org/10.1177/0734282916674135>
- Johnston, C. S. (2018). A Systematic Review of the Career Adaptability Literature and Future Outlook. *Journal of Career Assessment*, 26(1), 3–30.

<https://doi.org/10.1177/1069072716679921>

- Karacan–Ozdemir, N., & Yerin Guneri, O. (2017). The Factors Contribute to Career Adaptability of High-School Students. *Egitim Arastirmalari - Eurasian Journal of Educational Research*, 2017(67), 183–198. <https://doi.org/10.14689/ejer.2017.67.11>
- Kim, B., Jung, S. H., Jang, S. H., Lee, B., Rhee, E., Cho, S. H., & Lee, S. M. (2014). Construction and initial validation of the planned happenstance career inventory. *Career Development Quarterly*, 62(3), 239–253. <https://doi.org/10.1002/j.2161-0045.2014.00082.x>
- Kool, M., & van Dierendonck, D. (2012). Servant leadership and commitment to change, the mediating role of justice and optimism. *Journal of Organizational Change Management*, 25(3), 422–433. <https://doi.org/10.1108/09534811211228139>
- Kost, D., Fieseler, C., & Wong, S. I. (2020). Boundaryless careers in the gig economy: An oxymoron? *Human Resource Management Journal*, 30(1), 100–113. <https://doi.org/10.1111/1748-8583.12265>
- Lent, R. W., & Brown, S. D. (2013). Social cognitive model of career self-management: Toward a unifying view of adaptive career behavior across the life span. *Journal of Counseling Psychology*, 60(4), 557–568. <https://doi.org/10.1037/a0033446>
- Li, H., Ngo, H. yue, & Cheung, F. (2019). Linking protean career orientation and career decidedness: The mediating role of career decision self-efficacy. *Journal of Vocational Behavior*, 115(June), 103322. <https://doi.org/10.1016/j.jvb.2019.103322>
- McIlveen, P., Burton, L. J., & Beccaria, G. (2013). A Short Form of the Career Futures Inventory. *Journal of Career Assessment*, 21(1), 127–138. <https://doi.org/10.1177/1069072712450493>
- Nguyen, Q., Kuntz, J. R. C., Näswall, K., & Malinen, S. (2016). Empowering leadership will be more strongly related to resilient behaviours at higher levels of proactive personality. *New Zealand Journal of Psychology*, 45(2), 13–21.
- Nilawati, L., Kismono, G., Handoko, T. H., & Rosari, R. (2023). Konseptualisasi dan pengembangan pengukuran sikap karier protean: Pendekatan teori kognitif sosial karier. *EKUITAS (Jurnal Ekonomi Dan Keuangan)*, 7(1), 81–101. <https://doi.org/10.24034/j25485024.y2023.v7.i1.4958>
- Ocampo, L., Acedillo, V., Bacunador, A. M., Balo, C. C., Lagdameo, Y. J., & Tupa, N. S. (2018). A historical review of the development of organizational citizenship behavior (OCB) and its implications for the twenty-first century. *Personnel Review*, 47(4), 821–862. <https://doi.org/10.1108/PR-04-2017-0136>
- Park, S., & Park, S. Y. (2020). Career adaptability of South Korean engineering students. *European Journal of Training and Development*, 44(4/5), 469–488. <https://doi.org/10.1108/EJTD-10-2019-0181>
- Penn, L. T., & Lent, R. W. (2018). The Joint Roles of Career Decision Self-Efficacy and Personality Traits in the Prediction of Career Decidedness and Decisional Difficulty. *Journal of Career Assessment*, 27(3), 457–470. <https://doi.org/10.1177/1069072718758296>
- Pshembayeva, E., Pfeyfer, N., Uaikhanova, M., & Bubenchikova, A. (2022). Career success: Analysis and development of career opportunities in students. *Frontiers in Education*, 7. <https://doi.org/10.3389/educ.2022.999541>
- Rogers, M. E., & Creed, P. A. (2011). A longitudinal examination of adolescent career planning and exploration using a social cognitive career theory framework. *Journal of Adolescence*, 34(1), 163–172. <https://doi.org/10.1016/j.adolescence.2009.12.010>
- Rojewski, J. W., Pisarik, C., & Han, H. (2017). Classifications of college students' protean and boundaryless orientation to work. *International Journal for Educational and Vocational Guidance*, 17(3), 329–346. <https://doi.org/10.1007/s10775-016-9337-7>
- Rottinghaus, P. J., Buelow, K. L., Matyja, A., & Schneider, M. R. (2012). The career

- futures Inventory-Revised: Measuring dimensions of career adaptability. *Journal of Career Assessment*, 20(2), 123–139. <https://doi.org/10.1177/1069072711420849>
- Rottinghaus, P. J., Day, S. X., & Borgen, F. H. (2005). The career futures inventory: A measure of career-related adaptability and optimism. *Journal of Career Assessment*, 13(1), 3–24. <https://doi.org/10.1177/1069072704270271>
- Rudolph, C. W., Lavigne, K. N., & Zacher, H. (2017). Career adaptability: A meta-analysis of relationships with measures of adaptivity, adapting responses, and adaptation results. *Journal of Vocational Behavior*, 98, 17–34. <https://doi.org/10.1016/j.jvb.2016.09.002>
- Santilli, S., Marcionetti, J., Rochat, S., Rossier, J., & Nota, L. (2017). Career Adaptability, Hope, Optimism, and Life Satisfaction in Italian and Swiss Adolescents. *Journal of Career Development*, 44(1), 62–76. <https://doi.org/10.1177/0894845316633793>
- Santos, G. G., Ferreira, A. P., & Pinho, J. C. (2020). Career attitudes and employability: analysis of mediation via career strategies. *Employee Relations*, 42(2), 417–436. <https://doi.org/10.1108/ER-09-2018-0249>
- Sarstedt, M., Ringle, C. M., Smith, D., Reams, R., & Hair, J. F. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy*, 5(1), 105–115. <https://doi.org/10.1016/j.jfbs.2014.01.002>
- Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80(3), 661–673. <https://doi.org/10.1016/j.jvb.2012.01.011>
- Sharot, T. (2011). The optimism bias. *Current Biology*, 21(23), R941–R945. <https://doi.org/10.1016/j.cub.2011.10.030>
- Spurk, D., Hirschi, A., & Kauffeld, S. (2016). A New Perspective on the Etiology of Workaholism: The Role of Personal and Contextual Career-Related Antecedents. *Journal of Career Assessment*, 24(4), 747–764. <https://doi.org/10.1177/1069072715616127>
- Stauffer, S. D., Abessolo, M., Zecca, G., & Rossier, J. (2019). French-Language Translation and Validation of the Protean and Boundaryless Career Attitudes Scales: Relationships to Proactive Personality, Career Adaptability, and Career Satisfaction. *Journal of Career Assessment*, 27(2), 337–357. <https://doi.org/10.1177/1069072717748962>
- Storme, M., Celik, P., & Myszkowski, N. (2019). Career Decision Ambiguity Tolerance and Career Decision-Making Difficulties in a French Sample: The Mediating Role of Career Decision Self-Efficacy. *Journal of Career Assessment*, 27(2), 273–288. <https://doi.org/10.1177/1069072717748958>
- Sullivan, S. E., & Arthur, M. B. (2006). The evolution of the boundaryless career concept: Examining physical and psychological mobility. *Journal of Vocational Behavior*, 69(1), 19–29. <https://doi.org/10.1016/j.jvb.2005.09.001>
- Taylor, K. M., & Betz, N. E. (1983). Applications of self-efficacy theory to the understanding and treatment of career indecision. *Journal of Vocational Behavior*, 22(1), 63–81. [https://doi.org/10.1016/0001-8791\(83\)90006-4](https://doi.org/10.1016/0001-8791(83)90006-4)
- Uy, M. A., Chan, K. Y., Sam, Y. L., Ho, M. ho R., & Chernyshenko, O. S. (2015). Proactivity, adaptability and boundaryless career attitudes: The mediating role of entrepreneurial alertness. *Journal of Vocational Behavior*, 86, 115–123. <https://doi.org/10.1016/j.jvb.2014.11.005>
- Wang, Z., & Fu, Y. (2015). Social support, social comparison, and career adaptability: A moderated mediation model. *Social Behavior and Personality*, 43(4), 649–660. <https://doi.org/10.2224/sbp.2015.43.4.649>
- Wiernik, B. M., & Wille, B. (2017). Careers, Career Development, and Career

Management. The Sage Handbook of Industrial, Work and Organizational Psychology (2nd Ed.). Sage. <https://www.researchgate.net/publication/332949979>

Wilkins-Yel, K. G., Roach, C. M. L., Tracey, T. J. G., & Yel, N. (2018). The effects of career adaptability on intended academic persistence: The mediating role of academic satisfaction. *Journal of Vocational Behavior*, 108(November 2016), 67–77. <https://doi.org/10.1016/j.jvb.2018.06.006>