

Relationship between personal satisfaction of CSUCC STEM students and their perception on the basis of career decision-making

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ABSTRACT

This study investigates the relationship between personal satisfaction and career decision-making among science, technology, engineering, and mathematics (STEM) students. The research aims to identify how personal fulfillment influences students' career choices and the extent of their satisfaction with selected paths. Utilizing a structured questionnaire, data were collected from 67 senior high school students at Caraga State University Cabadbaran Campus (CSUCC). Findings reveal that while students view personal fulfillment as an important factor in their career decisions, it does not significantly correlate with overall career satisfaction. The results suggest that personal satisfaction should be complemented by other elements, such as job market conditions and effective career guidance, to enhance students' decision-making processes. This study provides valuable insights for educational institutions and regional stakeholders, promoting improved career counseling and mentorship programs to foster a skilled and motivated workforce.

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1. INTRODUCTION

The relationship between personal satisfaction and career decision-making among science, technology, engineering, and mathematics (STEM) students has garnered significant attention in academia. Studies have examined how personal fulfillment influences career choices and the factors that shape students' perceptions [1]. Career decision-making, often a daunting process, requires individuals to process a large volume of information about potential career paths [2], [1].

Understanding how personal satisfaction impacts career choices is crucial for developing effective career guidance programs and enhancing curricula [2], [3]. This can ensure STEM students are well-prepared for fulfilling careers, contributing to the nation's competitiveness and innovation [4]. Additionally, insights into these factors could help regional stakeholders design strategies to attract and retain talent, boosting economic growth and competitiveness [5], [6].

For educational institutions, the connection between personal satisfaction and career decisions is critical [7]–[9]. It informs the development of career counseling, mentorship programs, and experiential learning opportunities, which empower STEM students to make informed choices about their futures [10]. Choosing a career is a multifaceted process, shaped by interests, skills, and job market conditions [11], [12]. Factors such as salary, work-life balance, and company culture also play important roles. The goal is to select a career path that aligns with one's values and abilities, leading to a rewarding professional life [13].

Some individuals view a career as a calling, where personal interests and job responsibilities align, providing purpose, and joy [14]. Others may see it as a means to meet practical needs, with salary and job security being key factors [15]. Balancing these perspectives can lead to a more satisfying career journey. While money is an important consideration, its influence on career satisfaction is limited [16]. Beyond a certain threshold, financial stability is essential, but does not necessarily lead to increased well-being [17]. High-paying jobs often come with challenges, such as long hours and stress, which can hinder personal growth and work-life balance [18]. Pursuing a passion-based career offers flexibility, intrinsic motivation, and greater life satisfaction but [19] can also pose risks, including financial instability and burnout if the chosen passion is not marketable [20]. A balance between passion and practical needs is essential for long-term career fulfillment [21].

2. METHOD

The study employed a correlational research design to examine the relationship between personal satisfaction and career decision-making among STEM students at Caraga State University Cabadbaran. This nonexperimental approach is effective for predicting and explaining associations between variables, making it well-suited for exploring how personal satisfaction influences career choices [22], [23]. The respondents included 67 students enrolled in STEM programs, providing valuable insights into their personal satisfaction levels and career decision-making processes.

Data collection was facilitated through a structured survey questionnaire designed to investigate the relationship between the two variables. The questionnaire underwent rigorous validation to ensure clarity, relevance, and reliability, with pilot testing conducted among 30 respondents. The analysis revealed excellent internal consistency, with Cronbach's Alpha scores of 0.913 for the 7-item satisfaction section and 0.902 for the 14-item career decision-making section, indicating strong reliability. A permission letter was secured from the principal, and after obtaining the contact information of STEM students, consent letters were sent to confirm their participation. Upon receiving consent, the survey link was distributed via Messenger, and the collected data were subsequently tallied, analyzed, and interpreted.

For data analysis, descriptive statistics, including mean and standard deviation, were computed to summarize the dataset, providing insights into central tendencies and variability [24]. To assess the correlation between personal satisfaction and career decision-making, Spearman's rho was utilized. This method is suitable for analyzing associations between ordinal data, allowing for a comprehensive understanding of the strength and direction of the relationship between the two variables.

3. RESULTS AND DISCUSSION

This study aimed to investigate the relationship between personal satisfaction and career decision-making perceptions among Caraga State University Cabadbaran Campus (CSUCC) STEM students. A simple random sample of 67 STEM students from CSUCC completed a questionnaire assessing their levels of satisfaction and perceptions regarding career choices. The findings, presented with accompanying tables and figures, will illustrate the results and provide insights into how personal satisfaction influences the career decision-making process among these students.

3.1. Students' personal satisfaction for STEM strand as their career

This section discusses students' personal satisfaction with the STEM strand as their career choice, focusing on the paths they have taken. Using a 4-point Likert scale, satisfaction levels are classified as follows: mean 1.0-1.75 indicates strongly disagree, 1.76-2.50 as disagree, 2.51-3.25 as agree, and 3.26-4.0 as strongly agree. Table 1 presents the statements, observations, means, standard deviations, and objective descriptions related to students' satisfaction.

Table 1 presents the means for personal satisfaction among CSUCC STEM students, showing values between 3 and 4, with the highest mean of 4 indicating strong satisfaction with their chosen career paths. The lowest mean of 3 reflects that students feel content with their decision to pursue a STEM program at CSUCC. Each item's mean is accompanied by a standard deviation ranging from ± 0.64 to ± 0.92 , suggesting variability in responses. The overall mean personal satisfaction score is 3.71, interpreted as "strongly agree," confirming that STEM students are generally satisfied with their career choices at CSUCC. These results indicate a positive sentiment towards the STEM program among respondents.

Table 1. Descriptive statistics of CSUCC STEM students' personal satisfaction in their choice of STEM strand as their career path

No.	Item	N	Mean	SD	Interpretation
1.	I am satisfied with the career path that I have chosen.	67	3.5	0.71	Strongly agree
2.	I am satisfied that I pursued STEM in CSUCC for my career path.	67	4	0.85	Strongly agree
3.	I am confident with my abilities to pursue a STEM related career path.	67	4	0.92	Strongly agree
4.	Satisfaction is important for my career path.	67	3.5	0.68	Strongly agree
5.	The satisfaction I experience from my STEM education at CSUCC positively influences my confidence in my future career prospects.	67	3	0.64	Agree
6.	I am grateful for the opportunities provided by my STEM studies at CSUCC, which contribute to my career decision.	67	4	0.70	Strongly agree
7.	I feel content with the direction of my career in STEM at CSUCC.	67	4	0.77	Strongly agree
	Overall	67	3.71	0.77	Strongly agree

3.2. STEM student's perception on the basis of career decision-making

This section discusses STEM students' perceptions of career decision-making, as shown in Table 2. The 4-point Likert scale classifies means as follows: 1.0-1.75 (strongly disagree), 1.76-2.50 (disagree), 2.51-3.25 (agree), and 3.26-4 (strongly agree). Table 2 displays the statements, number of observations, means, standard deviations, and objective descriptions.

Table 2. Descriptive statistics for CSUCC STEM students' perception on the basis of career decision-making

No.	Item	N	Mean	SD	Interpretation
1.	I am influenced by my academic experiences when making career decisions.	67	3	0.75	Agree
2.	I am influenced by my interests when making career decisions.	67	3	0.68	Agree
3.	I consider the alignment of a career with my skills when making career decisions.	67	3	0.70	Agree
4.	I consider the alignment of a career with my abilities when making career decisions.	67	3.5	0.68	Strongly agree
5.	I am influenced by the salary of my career when making career decisions.	67	4	0.74	Strongly agree
6.	I am influenced by financial considerations when making career decisions.	67	4	0.72	Strongly agree
7.	I am influenced by societal expectations when making career decisions.	67	3	0.81	Agree
8.	I am influenced by cultural norms when making career decisions.	67	2.5	0.85	Disagree
9.	I consider the potential for career growth and advancement when choosing a career path.	67	3	0.69	Agree
10.	I am influenced by my peer members when making career decisions.	67	3	0.94	Agree
11.	I am influenced by my family members when making career decisions.	67	3	0.91	Agree
12.	I consider the potential for job satisfaction when choosing a career path.	67	3.5	0.68	Agree
13.	I consider the potential for personal fulfillment when choosing a career path.	67	4	0.72	Strongly agree
14.	I am influenced by the reputation of a career when making career decisions.	67	3.5	0.76	Strongly agree
	Overall	67	3.29	0.81	Agree

Table 2 highlights the significant impact of financial considerations, particularly salary, on career decision-making (mean=4, SD=0.74), emphasizing the importance of financial stability. Personal attributes such as interests, skills, and abilities also play a crucial role (means of 3 to 3.5, SD≈0.68), underscoring the need for alignment between career choices and personal characteristics. Cultural norms have a moderate influence (mean=2.5, SD≈0.85), indicating societal expectations are acknowledged but not strictly followed. While personal relationships with peers and family are relevant (mean=3 for both, SD>0.9), their influence varies, suggesting they are not the sole determinants in career decisions. Overall, a blend of internal motivations, external influences, and personal traits shapes individuals' career choices.

3.3. Relationship between personal satisfaction and career decision-making of STEM students

This section examines the relationship between the personal satisfaction of STEM students and their perceptions of career decision-making. All items related to personal satisfaction and perceptions are ordinal, allowing for the use of Spearman's rho analysis on the Jamovi platform to assess the associations between these variables.

Table 3 displays the statistical findings on the relationship between STEM students' personal satisfaction and their perceptions of career decision-making. The Spearman's rho correlation coefficient indicates a moderate positive correlation ($r_s=0.408$), suggesting that STEM students with higher levels of personal satisfaction are more likely to be influenced by various factors in their career decision-making.

This correlation was statistically significant ($p=0.001$), leading to the rejection of the null hypothesis (H_0), which posited no significant relationship between the personal satisfaction of CSUCC STEM students and their perceptions of career decision-making. This finding aligns with previous research indicating a significant correlation between satisfaction in one's major, career decision-making self-efficacy, and career identity among students [25].

Table 3. Relationship of personal satisfaction and STEM students' perception on the basis of career decision-making

Parameter	Spearman's rho	Interpretation	p-value	Decision	Remark
Personal satisfaction STEM students' perception on the basis of career decision-making	0.408	Moderate positive correlation	<0.001	Reject H_0	There is a significant relationship

4. CONCLUSION

This study aimed to explore the relationship between personal satisfaction and career decision-making among STEM students at CSUCC. The results indicate a strong alignment with the initial expectations outlined in the introduction, revealing that students experience high levels of satisfaction with their career paths. Financial factors, particularly salary, were significant influencers in their decision-making, complemented by the importance of aligning careers with personal interests and skills.

The significant positive correlation between personal satisfaction and the factors considered in career decisions suggests that enhancing students' satisfaction could lead to more informed and confident career choices. This compatibility between the study's objectives and findings underscores the potential for developing effective career guidance programs that address both financial and personal aspirations. Future research could expand on these findings by investigating specific influences on career choices within various STEM disciplines, allowing for a deeper understanding of how-to best support students in their career journeys. Overall, this study contributes valuable insights for educational institutions and stakeholders in fostering a more skilled and satisfied workforce.

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C : **C**onceptualization

M : **M**ethodology

So : **S**oftware

Va : **V**alidation

Fo : **F**ormal analysis

I : **I**nvestigation

R : **R**esources

D : **D**ata Curation

O : Writing - **O**riginal Draft

E : Writing - Review & **E**diting

Vi : **V**isualization

Su : **S**upervision

P : **P**roject administration

Fu : **F**unding acquisition

CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

INFORMED CONSENT

We have obtained informed consent from all individuals included in this study.

ETHICAL APPROVAL

The research related to human use has complied with all relevant national regulations and institutional policies by the tenets of the Helsinki Declaration and has been approved by the author's institutional review board or equivalent committee.




DATA AVAILABILITY

The data supporting the findings of this study are available within the article and/or its supplementary materials. Additionally, further data can be obtained from the corresponding author, [LJVC], upon reasonable request.




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