**AN ANALYSIS OF EMOTIONAL AND COGNITIVE ATTITUDES OF NON-ALIGNED STRAND STUDENTS IN CHOOSING ICT-BASED COLLEGE PROGRAMS**

**ABSTRACT**

This study aimed to determine the emotional and cognitive attitudes of Senior High School (SHS) graduates from non–Information and Communications Technology (ICT) strands—Humanities and Social Sciences (HUMSS), General Academic Strand (GAS), and Science, Technology, Engineering, and Mathematics (STEM)—in their decision to pursue ICT-based college courses. Despite the academic alignment suggested by the Philippine K–12 curriculum, a notable shift is observed as students from non-ICT strands opt for ICT-related programs, indicating that other influencing factors are at play. Data were collected from 65 respondents using a validated Likert-scale survey, and a descriptive-correlational research design was employed. Descriptive statistics and Pearson correlation analysis were utilized to analyze the data. Results revealed strong emotional motivations, including passion for technology and curiosity, as well as significant cognitive factors such as perceived job opportunities, global relevance, and logical career growth. A moderately strong positive correlation (r = 0.72) between emotional and cognitive attitudes suggests that both affective and rational elements jointly influence student course selection. The study concludes that a balanced approach to academic advising, one that acknowledges both emotional engagement and logical career evaluation, is essential in supporting cross-strand transitions into ICT programs.

**Keywords:** *emotional attitudes, cognitive attitudes, educational decision-making, ICT courses, non-ICT strands*

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**INTRODUCTION**

In an increasingly technology-driven world, factors such as educational priorities and career relevance are reshaping how SHS graduates choose their college courses (Galvan et al., 2024). In the Philippines, the courses in Information and Communications Technology (ICT) have become more appealing to students looking for potential career opportunities. Although the K–12 curriculum was designed to align SHS strands with specific college courses, many students from non-ICT strands such as HUMSS, GAS, and STEM still choose to pursue ICT-related programs, reflecting a broader trend of cross-strand transitions (Gaviola et al., 2023).

DepEd (2016) highlighted the need for proper strand alignment to maximize continuity of learning; however, in the selection of college courses, more is usually involved than academic readiness. As Almario (2021) notes, emotional factors such as passion for computers, fear of unemployment, and peer influence—as well as cognitive factors like logical evaluation of the job market and self-assessment of skills—play a crucial role in students' career decisions. Emotional attitudes are affective reactions that affect preferences, and cognitive attitudes are rational evaluation processes (Ajzen, 1991).

While studies such as those by Almario (2021) and Gaviola et al. (2023) have examined the decision-making behaviors of Filipino students—particularly those who shift tracks—not many have employed a comparative framework that distinctly analyzes emotional and cognitive factors influencing their course choices. In the time when digital transformation is the key concept in many industries, it is crucial to understand why students shift to ICT fields – even though they are not academically prepared for it – for educational planning and student support purposes.

Therefore, this study examines the emotional and cognitive influences on the non-aligned strand SHS students’ choice to join ICT-based college courses. Through this, it hopes to provide valuable insights on the ways of enhancing career guidance and curriculum interventions for future generations.

**Statement of the Problem**

This study seeks to understand the emotional and cognitive attitudes of Senior High School graduates from non-ICT strands in choosing ICT-related college programs. Specifically, it aims to address the following questions:

1. What emotional factors influence the decision of non-ICT strand students to pursue ICT-based college courses?
2. What cognitive factors contribute to the choice of ICT programs among these students?
3. Is there a significant relationship between students’ emotional and cognitive attitudes in their course selection?

**Objectives of the Study**

This research aims to:

1. Identify the emotional factors that influence SHS students from non-ICT strands in selecting ICT-related college programs.
2. Determine the cognitive factors that shape their decisions to pursue ICT courses.
3. Examine the relationship between emotional and cognitive attitudes in the context of student decision-making toward ICT programs.

**Significance of the Study**

This study is significant in contributing to the broader understanding of how emotional and cognitive attitudes jointly shape the educational decisions of Senior High School students, particularly those transitioning from non-ICT strands into ICT-based college programs. By investigating both affective motivations and rational evaluations, the research highlights the multifaceted nature of course selection. The findings have implications for career guidance, educational policy, and curriculum planning, especially in the context of the Philippine K–12 educational system where strand-to-program alignment is emphasized. Recognizing that students are not solely guided by strand alignment but also by their passions and perceptions of future opportunities is critical for developing responsive educational interventions. Furthermore, the study provides empirical evidence that can guide academic institutions in designing support mechanisms tailored to non-ICT strand students who choose ICT fields, helping ensure smoother transitions and improved retention in technology-related programs.

**Scope and Delimitations**

This study was limited to SHS graduates from non-ICT strands who are currently enrolled in ICT-related college programs within selected higher education institutions in Ilocos Norte. The findings may not be generalizable to all SHS graduates nationwide. Additionally, the study utilized self-reported data through a Likert-scale survey, which may be subject to social desirability bias. Other potential influencing factors, such as socioeconomic background and school resources, were not examined in this study.

**Review of Related Literature**

Education decision-making is a complicated process which depends on a variety of internal and external factors. Ajzen’s (1991) theory of planned behavior states that attitudes, subjective norms, and perceived behavioral control are the factors, which have an impact on people’s decisions, where attitudes are both emotional and cognitive. In educational institutions, affective judgments such as interest or fear will tend to be concomitant with cognitions about career prospects and future employment.

The interplay between emotional desires and rational considerations in career decision-making has been highlighted by several Philippine studies. Galvan et al. (2024) noted that Senior High School students often face challenges balancing personal interests and concerns about job security when choosing college courses. Similarly, Gaviola et al. (2023) found that students from non-aligned strands tend to switch courses driven by both passion and an analytical assessment of industry trends.

International research supports these findings. Lent, Brown, and Hackett’s (1994) Social Cognitive Career Theory considers career interests and decisions to be a function of both personal feelings (affective factors) as well as objective appraisals of what to expect from an opportunity. Additionally, Savickas (2013) has pointed the role of career adaptability, which implies that students tend to be more influenced by emotional and cognitive adaptability ( enthusiasm, anxiety, planning, decision-making, etc.).

Regarding ICT programs, Galvan et al. (2024) noted a growing interest among Filipino students driven by passion for technology and the perceived global demand for ICT professionals. Meanwhile, Almario (2021) observed that Filipino youth tend to make pragmatic course decisions based on labor market considerations, highlighting the strong cognitive element in their academic choices.

In addition, the Department of Education (2016) has continually emphasized the need to match Senior High School tracks with future studies and careers however, the patterns of the real-world indicate that emotional reasons can win over this alignment, particularly when the students change their interests or feel better opportunities elsewhere.

Collectively, these studies indicate that it is important to comprehend the balance between emotional and cognitive attitudes, for effectively influencing the educational and career choice of students, even more so for students who join ICT fields without an ICT background.

**METHODOLOGY**

**Research Design**

This study employed a descriptive-correlational research design. This design was appropriate as it enabled the researcher to describe the emotional and cognitive attitudes of the respondents and examine the potential relationship between them.

**Population and Sample**

The respondents consisted of sixty-five (65) Senior High School (SHS) graduates from non-ICT strands, specifically from the HUMSS, GAS, and STEM tracks. These students were currently enrolled in ICT-based programs in selected higher education institutions in Ilocos Norte. A purposive sampling technique was used to ensure that only students from non-ICT strands were included.

**Research Instrument**

The research instrument used was a survey questionnaire divided into three parts: Part I focused on demographic profiles, Part II measured emotional attitudes, and Part III assessed cognitive attitudes. Each item in Parts II and III was rated using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

**Data Collection Procedure**

The researcher obtained appropriate approval from institutional ethics committees and coordinators of the schools that were involved. After approval, the questionnaires were sent in both printed and online formats to the respondents based on their availability. The study was voluntary, and all the respondents signed an informed consent form prior to answering the questionnaire. The respondents were assured that all collected data would be handled under strict confidentiality and that it will only be used for academic purposes. Afterward, data collection, the responses were encoded, arranged and ready for statistical analysis.

**Data Analysis**

To analyze the collected data, the researcher employed the use of descriptive statistics, which included frequency, percentage, mean and standard deviation in describing the emotional and cognitive attitude of the students. To find out the association between emotional and cognitive factors, Pearson’s correlation coefficient was applied.

**RESULTS AND DISCUSSION**

The findings of this study provide valuable insights into the emotional and cognitive attitudes of Senior High School students from non-ICT strands in choosing ICT-based college programs.

**Emotional Attitudes of Respondents**

For emotional attitudes, the highest-rated item was “I feel passionate about using computers and technology,” which had a mean of 4.18, followed by “I was excited to explore ICT even if it was not part of my SHS strand” with a mean of 4.03. These results suggest that intrinsic motivations such as curiosity and enthusiasm for technology strongly influence students’ decisions. Interestingly, items related to external pressure, such as family or peer influence, received lower ratings, indicating that the students’ choices were largely self-driven rather than socially compelled. Moreover, the inclusion of “I feel more confident emotionally when dealing with technology-based subjects” among emotional factors reinforces the idea that students’ self-assurance in engaging with technology also plays a role in their decision-making process.

*Table 1. Emotional Attitudes of Respondents*

|  |  |  |
| --- | --- | --- |
| Emotional Item | Mean | Descriptive Interpretation |
| I feel passionate about using computers and technology. | 4.18 | Agree |
| I was excited to explore ICT even if it was not part of my SHS strand. | 4.03 | Agree |
| I feel anxious about succeeding in other fields, so I chose ICT. | 3.35 | Neutral |
| I chose ICT because I wanted to challenge myself emotionally. | 3.55 | Agree |
| I feel more confident emotionally when dealing with tech-based subjects. | 3.55 | Agree |
| I was influenced by my friends or classmates who were also taking ICT. | 3.02 | Neutral |
| I chose ICT because I enjoy problem-solving through digital means. | 3.43 | Agree |
| I felt unmotivated in my original strand, and ICT gave me renewed interest. | 3.46 | Agree |
| My personal interest in video games or apps influenced me to take ICT. | 3.58 | Agree |
| I felt pressured by family to shift to ICT. | 2.65 | Neutral |

Descriptive Range Equivalent:

4.20–5.00 = Strongly Agree

3.40–4.19 = Agree

2.60–3.39 = Neutral

1.80–2.59 = Disagree

1.00–1.79 = Strongly Disagree

**Cognitive Attitudes of Respondents**

In terms of cognitive attitudes, students most strongly agreed with statements highlighting practical and future-oriented reasoning. The highest mean scores were recorded for items such as “I selected ICT because it provides logical career growth opportunities” (M = 3.83) and “I understand how ICT connects to global job markets” (M = 3.82). This implies that many students assessed their decisions using career-related and market-driven logic. Other significant factors included salary potential, the relevance of ICT in the modern world, and students’ self-evaluation of their analytical skills. These results affirm that cognitive reasoning, particularly relating to employability and career development, holds a substantial influence in course selection, slightly exceeding emotional factors in terms of importance.

*Table 2. Cognitive Attitudes of Respondents*

|  |  |  |
| --- | --- | --- |
| Cognitive Item | Mean | Descriptive Interpretation |
| I selected ICT because it provides logical career growth opportunities. | 3.83 | Agree |
| I understand how ICT connects to global job markets. | 3.82 | Agree |
| I believe ICT offers more job opportunities than my original SHS strand. | 3.77 | Agree |
| I find ICT more relevant and practical compared to other college programs. | 3.74 | Agree |
| I chose ICT because I believe it offers higher salary potential. | 3.66 | Agree |
| I analyzed the employment trends before choosing ICT. | 3.66 | Agree |
| I chose ICT after researching future-proof careers. | 3.66 | Agree |
| I compared my skills to the demands of ICT-related courses. | 3.65 | Agree |
| I think ICT matches my logical and analytical thinking skills. | 3.63 | Agree |
| I assessed my academic performance and found ICT to be more suited to me. | 3.54 | Agree |

Descriptive Range Equivalent:

4.20–5.00 = Strongly Agree

3.40–4.19 = Agree

2.60–3.39 = Neutral

1.80–2.59 = Disagree

1.00–1.79 = Strongly Disagree

**Correlation Between Emotional and Cognitive Attitudes**

 Pearson correlation analysis revealed a moderately strong positive relationship (r = 0.72) between emotional and cognitive attitudes, indicating that students who are emotionally engaged with ICT are also likely to have rational justifications for their choice. This supports the assertions of Ajzen’s (1991) Theory of Planned Behavior and Lent et al.’s (1994) Social Cognitive Career Theory, both of which emphasize the combined role of affective and evaluative factors in behavioral decision-making. Overall, these findings show that the decision to pursue ICT among non-ICT strand students results from a combination of passion, self-assurance, and pragmatic evaluation of future career benefits.

*Table 3. Cognitive Attitudes of Respondents*



**CONCLUSION**

This study analyzed the emotional and cognitive attitudes of Senior High School students from non-ICT strands in relation to their decision to pursue ICT-based college programs. The findings revealed that both emotional and cognitive attitudes significantly influence students’ decisions. Emotional factors, such as a passion for technology and a sense of excitement about exploring ICT, were highly rated, while cognitive factors such as better job opportunities, relevance to the global labor market, and logical career growth had a slightly higher overall influence. A moderately strong correlation (r = 0.72) between emotional and cognitive attitudes confirms that students’ choices are influenced by an integration of both affective and rational considerations. These insights highlight the importance of recognizing both dimensions in educational planning and student advising. Furthermore, the study suggests that higher education institutions offering ICT programs should consider the emotional and cognitive readiness of non-ICT strand students and provide proactive support systems. The growing trend of cross-strand transitions also reflects the increasing attractiveness of ICT careers to Filipino youth, regardless of their initial SHS track.

**RECOMMENDATIONS**

Considering the study’s findings and conclusions, several recommendations are presented. First, career guidance programs should be enhanced to address both emotional motivations and rational evaluations, helping students make more informed and balanced decisions when selecting ICT-related college programs. Second, higher education institutions are encouraged to create supportive mechanisms—such as mentoring initiatives and orientation programs—designed specifically for students from non-ICT strands. These initiatives can help ease their transition into ICT fields, even if academic difficulties have not yet been observed. Third, Senior High School educators should facilitate reflective career planning activities that help students clarify their interests, goals, and perceived strengths in relation to future academic and professional pathways. Fourth, institutions may also revisit admission policies and consider more inclusive approaches that account for the increasing number of non-ICT strand students entering ICT programs. Finally, future researchers are encouraged to explore the deeper motivations behind student decisions by using qualitative methods such as interviews or focus group discussions. Expanding the geographic scope of the study is also recommended to improve the generalizability of the findings across different regions and contexts.

**Disclaimer (Artificial Intelligence)**

Author(s) hereby declares that generative AI technologies such as Large Language Models, etc. have been used during the writing or editing of manuscripts. This explanation will include the name, version, model, and source of the generative AI technology and as well as all input prompts provided to the generative AI technology

**Details of the AI usage are given below:**

 1. Perplexity

 2. ChatGPT

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