

**ROLE OF PERSONALITY ON CHOICE GOALS: MEDIATING
ROLES OF CAREER DECISION-MAKING SELF-EFFICACY
AND OUTCOME EXPECTATIONS AMONG SENIOR
SECONDARY SCHOOL STUDENTS**

Thesis Submitted for the Award of the Degree of

DOCTOR OF PHILOSOPHY

In

Education

By

Patal Kumar Murasing

Registration Number: 42000045

Supervised by

Dr. Rajib Chakraborty

Professor and Head of Department,

School of Education,

Punjab

Co-Supervised by

Dr. Navdeep Singh Raji

Assistant Professor

M.K. College of Education, Jalandhar

Punjab



LOVELYPROFESSIONALUNIVERSITY, PUNJAB

2026



DECLARATION

I, hereby declare that the presented work in the thesis entitled “Role of Personality on Choice Goals: Mediating Roles of Career Decision-Making Self-Efficacy and Outcome Expectations among Senior Secondary School Students” in fulfillment of degree of **Doctor of Philosophy (Ph.D.)** is outcome of research work carried out by me under the supervision of Dr. Rajib Chakraborty, Professor and Head of the Department, School of Education, Lovely Professional University, Phagwara, Punjab and co-supervisor Dr. Navdeep Singh Raji, Assistant Professor, M.K. College of Education, Jalandhar, Punjab. In keeping with general practice of reporting scientific observations, due acknowledgements have been made whenever work described here has been based on findings of other investigator. This work has not been submitted in part or full to any other University or Institute for the award of any degree.

Patal Kumar Mursasing

Patal Kumar Mursasing

Reg .No.42000045

School of Education,

Lovely Professional University,

Phagwara, Punjab, India.



CERTIFICATE

This is to certify that the work reported in the Ph.D. thesis entitled “Role of Personality on Choice Goals: Mediating Roles of Career Decision-Making Self-Efficacy and Outcome Expectations among Senior Secondary School Students” submitted in fulfillment of the requirement for the award of degree of **Doctor of Philosophy (Ph.D.)** in the School of Education, is a research work carried out by Patal Kumar Murasing, 42000045, is bonafide record of his/her original work carried out under our supervision and that no part of thesis has been submitted for any other degree, diploma or equivalent course.

Dr. RajibChakraborty

Professor and Head of Department,
School of Education,
Lovely Professional University
Phagwara, Punjab, India

Dr. Navdeep Singh Raji

Assistant Professor,
M.K. College of Education,
Jalandhar, Punjab, India

ACKNOWLEDGEMENT

It is very hard to make a formal statement of acknowledgement for the names which truly encouraged, helped and made me feel inspired.

I am indebted to my advisor **Dr. Rajib Chakraborty**, Professor, School of Education, Lovely Professional University, Punjab for his invaluable guidance, inspiring criticism, and benevolent attitude and for making all the precious time available for me despite his well occupied schedule. There are no words to thank my co-advisor **Dr. Navdeep Singh Raji**, Assistant Professor, M. K. College of Education, Jalandhar, Punjab. The thesis itself is a silent acknowledgement to her undying spirit and unending enthusiasm for work.

I would like to record my appreciation for **Dr. Pavitar Parkash Singh** (Sr. Dean), **Dr. Sujata Bhan** (Dean) Professor, School of Education, Lovely Professional University and **Dr. Vijay Kumar Chechi** (Deputy Dean) Professor, School of Education, Lovely Professional University, Punjab and **Dr. Rajib Chakraborty**, Head of the Department, School of Education, Lovely Professional University, Punjab for their valuable suggestions during the tenure of my research work.

Lastly, I express my deepest thanks to all those who contributed to this endeavor and helped me directly or indirectly throughout my studies.

My deep senses of reverence to my wife and son who bestowed me with their wishes.

Date: 04-03-2026

Patal Kumar Murasing

TABLE OF CONTENT

Declaration		i
Certificate		ii
Acknowledgment		iii
Table of Content		iv-x
List of Figures		xi-xii
List of Tables		xiii-xv
Abstract		xvi-xix
CHAPTER-1	INTRODUCTION	1-36
1.1	Introduction	1
1.2	Theoretical Frameworks of the Study	2
1.2.1	Social Cognitive Career Theory (SCCT)	2
1.2.2	Big Five Traits or Five Factor Model of Personality Theory (FFM)	3
1.2.3	Relevance of SCCT	4
1.2.4	Key Components of SCCT	5
1.2.5	Relevance of the FFM of Personality	6
1.2.6	Key Dimensions of FFM	6
1.2.7	Comprehensive Framework of FEM	8
1.2.8	High and Low Expressions of Big Five Traits or FFM	8
1.2.9	Integration of SCCT and FFM in the Present Study	11
1.2.10	CDMSE and its Potential Mediating Role on Choice Goals	12
1.2.11	Outcome Expectations and its Potential Mediating Role on Choice Goals	15
1.2.12	Interplay between CDMSE and Outcome Expectations	17
1.2.13	Importance of Studying Personality, CDMSE, OE and Choice Goals in Secondary School Students	18
1.3	Overview of Influencing Factors of Career Decision-Making: Personality, CDMSE, and Outcome Expectations	20

1.3.1	Personality	20
1.3.2	CDMSE (Career Decision-Making Self-Efficacy)	21
1.3.3	Outcome Expectations	23
1.4	Statement of the Problem	24
1.4.1	Challenges in Career Decision-Making among Senior Secondary School	26
1.5	Need of the Study	28
1.5.1	Enhancing Understanding of Career Decision-Making Dynamics	28
1.5.2	Addressing Career Decision-Making Challenges	28
1.5.3	Guiding Tailored Career Counseling Interventions	29
1.5.4	Promoting Academic and Career Success	29
1.5.5	Contributing to Educational and Vocational Policy	29
1.5.6	Advancing Research in Career Psychology	29
1.6	Significance of the Study	29
1.6.1	Theoretical Contributions	30
1.6.2	Practical Applications	30
1.7	Key Areas of Significance	30
1.7.1	Significance of Career Choice Goals in the Career Development	31
1.8	Key Variables of the Study	32
1.9	Objectives of the Study	33
1.10	Research Hypotheses	33
1.11	Operational Definition of Scales	34
1.11.1	Big Five Inventory (BFI-44)	35
1.11.2	Career Decision Making Self Efficacy Scale	35
1.11.3	Vocational Outcome Expectations Scale	35
1.11.4	Career Choice Goals Scale	36
1.12	Delimitations of the Study	36
CHAPTER-II	REVIEW OF LITERATURE	37-77

2.1	Introduction	37
2.2	A Critical Review of Research on Personality Traits	37
2.3	Reviews on Studies Examining the Career Decision-Making and Self-Efficacy/ Career Decision Making Self-Efficacy	41
2.4	Critical Evaluations of Studies Examining Outcome Expectations/Vocational Outcome Expectations and Choice	52
2.5	Reviews on Studies Examining the Relationship between Personality and Career Decision Making Self-Efficacy	59
2.6	Reviews on Studies Examining the Relationship between Career Decision Making Self-Efficacy and Outcome Expectation or Vocational Outcome Expectations	67
2.7	Overall Summary from the Literature Reviews	74
2.8	Research Gaps	75
2.9	Conceptual Framework	76
CHAPTER-III	RESEARCH DESIGN AND METHODOLOGY	78-111
3.1	Introduction	78
3.2	Research Design	78
3.2.1	Rationale for Choosing a Quantitative Approach	78
3.3	Sampling Design	79
3.3.1	Population	79
3.3.2	Sampling Frame	79
3.3.3	Sampling Technique	81
3.3.4	Sampling Procedure	82
3.3.4.1	Steps for Generating Random Samples	82
3.4	Sample	84
3.4.1	Inclusion Criteria of the Sample Subjects	84
3.5	Data Collection	84
3.5.1	Data Collection Procedure	84
3.5.2	Data Collection Tools Used in the Study	85

3.5.2.1	Personality Traits Inventory (BFI-44)	85
3.5.2.2	Career Decision-Making Self-Efficacy (CDMSE) Scale	86
3.5.2.3	Vocational Outcome Expectations (VOE) Scale	87
3.5.2.4	Career Choice Goals Scale	87
3.6	Scale Validation	88
3.6.1	Estimation of Scale and Item Content Validity Index of Career Choice Goals Scale	89
3.6.2	Estimation of Scale and Item Content Validity Index of Vocational Outcome Expectations	91
3.6.3	Estimation of Construct Validity and Reliability Analysis of the Tools Estimation of Construct Validity of Big Five Inventory 44 (BFI-44) and its Purification	94
3.6.4	Estimation of Construct Validity and Reliability Analysis of the Career Decision Making Self Efficacy Tool and its Purification	97
3.6.5	Validation of Revised Vocational Outcome Expectations (VOE-R) Scale	101
3.6.6	Validation of Career Choice Goals Scale	106
3.7	Statistical Technique Employed for Data Analysis	110
CHAPTER-IV	DATA ANALYSIS AND INTERPRETATIONS	112-186
4.1	Introduction	112
4.2	Descriptive Analysis	113
4.2.1	Descriptive analysis of demographical variable	113
4.2.2	Summary of Descriptive Statistics Estimation of Personality Traits in Senior Secondary School Students	118
4.2.3	Summary of Descriptive Statistics of Career Decision Making Self Efficacy (CDMSE), Vocational Outcome Expectations (VOE), and Choice Goals in Senior Secondary School Students	120
4.3	Correlational Analysis	122
4.3.1	Relationship between Personality and Choice Goals in senior secondary school students	122

4.3.2	Relationship between Personality and Career Decision-Making Self-Efficacy (CDMSE)	126
4.3.3	Relationship between Career Decision-Making Self-Efficacy (CDMSE) and Choice Goals	130
4.3.4	Relationship between Personality and Vocational Outcome Expectations (VOE)	131
4.3.5	Relationship between Vocational Outcome Expectations (VOE) and Choice Goals	134
4.3.6	Summary of Interpretations of Correlation Coefficient	135
4.4	Regression Analyses	136
4.4.1	Predictive role of Personality on Choice Goals	136
4.4.2	Predictive role of Personality on Career Decision-Making Self-Efficacy (CDMSE)	144
4.4.3	Predictive role of Career Decision-Making Self-Efficacy (CDMSE) on Choice Goals	152
4.4.4	Predictive role of Personality on Outcome Expectations	153
4.4.5	Predictive role of Outcome Expectations on Choice Goals	161
4.4.6	Summary of Interpretations of Regression Analyses	162
4.5	Mediation Analysis	164
4.5.1	Personality and Choice Goals, with Career Decision Making Self-Efficacy (CDMSE) as a mediator.	164
4.5.2	Personality and Choice Goals, with Vocational Outcome Expectation (VOE) as a mediator.	174
4.5.3	Overall Interpretations of Two Key Mediating Factors: Career Decision-Making Self-Efficacy (CDMSE) and Vocational Outcome	185
4.5.3.1	CDMSE as a Mediator	185
4.5.3.2	VOE as a Mediator	185

4.5.3.3	Comparison of Mediators	185
CHAPTER-V	CONCLUSIONS, EDUCATIONAL IMPLICATIONS, RECOMMENDATIONS, LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH	187-195
5.1	Introduction	187
5.2	Overview of the Study	187
5.3	Conclusions Related to Study Findings	188
5.3.1	Objective 1: To study the relationship between Personality and Choice Goals in senior secondary school students	188
5.3.2	Objective 2: To study the relationship between Personality and Career Decision Making Self-Efficacy in senior secondary school students	188
5.3.3	Objective 3: To study the relationship between Career Decision Making	188
5.3.4	Objective 4: To study the relationship between Personality and Outcome	188
5.3.5	Objective 5: To study the relationship between Outcome Expectations and Choice Goals in senior secondary school students	189
5.3.6	Objective 6: To study the predictive role of Personality on Choice Goals	189
5.3.7	Objective 7: To study the predictive role of Personality on Career Decision Making Self-Efficacy in senior secondary school students	189
5.3.8	Objective 8: To study the predictive role of Career Decision Making Self- Efficacy on Choice Goals in senior secondary school students	189
5.3.9	Objective 9: To study the predictive role of Personality on Outcome Expectations in senior secondary school students	189
5.3.10	Objective 10: To study the predictive role of Outcome Expectations on Choice Goals in senior secondary school students	190
5.3.11	Objective 11: To study the mediating roles of Career Decision Making Self-Efficacy and Outcome Expectations in Senior Secondary School Students.	190

5.4	Educational Implications of the Research Findings	190
5.5	Recommendations	192
5.6	Limitations	194
5.7	Suggestions for Future Studies	194
5.8	Conclusion	195
	REFERENCES	196-222
	APPENDIX	223-250

LIST OF FIGURES

Figure No.	Figures Title	Page NO.
1.1	Albert Bandura's Triadic Reciprocal Causation (Mutual influences between three sets of variables)	4
1.2	Basic building blocks of SCCT	5
1.3	The Big Five Personality Model of J. M. Digman (1990), by Shawn Bennett (SketchBubble).	7
2.1	Conceptual Framework	77
3.1	District Map of Tripura state/province of India	80
3.2	Distribution of Sample across CBSE administered Senior Secondary Schools in Tripura	82
3.3	Path Diagram of the Factor Structure of BFI-44	94
3.4	Path Diagram of the Factor Structure of CDMSE-17	98
3.5	Path Diagram of the Factor Structure of Revised Vocational Outcomes Expectation Scale	103
3.6	Path Diagram of the Factor Structure of Career Choice Goals Scale	108
4.1	Distribution of the Sample Subjects with respect to Gender	115
4.2	Distribution of the Sample Subjects with respect to Grade	115
4.3	Distribution of the Sample Subjects with respect to Stream	116
4.4	Distribution of the Sample Subjects with respect to Districts	116
4.5	Distribution of the Sample Subjects with respect to Schools	117
4.6	Mean scores of personality (Openness, Conscientiousness, Extroversion, Agreeableness, Neuroticism)	119
4.7	Mean scores of Career Decision-Making Self-Efficacy (CDMSE), Outcome Expectations (VOE) and Choice Goals	121
4.8	Mediation Analysis (Openness → CDMSE → Choice Goals)	164
4.9	Mediation Analysis (Conscientiousness → CDMSE → Choice Goals)	166

4.10	Mediation Analysis (Extroversion → CDMSE → Choice Goals)	168
4.11	Mediation Analysis (Agreeableness → CDMSE → Choice Goals)	170
4.12	Mediation Analysis (Neuroticism → CDMSE → Choice Goals)	172
4.13	Mediation Analysis (Openness → VOE → Choice Goals)	174
4.14	Mediation Analysis (Extroversion → VOE → Choice Goals)	176
4.15	Mediation Analysis (Agreeableness → VOE → Choice Goals)	178
4.16	Mediation Analysis (Agreeableness → VOE → Choice Goals)	181
4.17	Mediation Analysis (Neuroticism → OE → Choice Goals)	183

LIST OF TABLES

Table No.	Tables Title	Page NO.
1 .1	The Big Five Personality Model (Parks-Leduc et al., 2015)	10
3.1	Sampling Frame of the CBSE Affiliated School as Obtained from SARAS Portal, Govt. of India	80
3.2	List of the CBSE affiliated Secondary Schools in Tripura Visited for Final Data Collection	83
3.3	Item and Scale Content Validity Indices – Choice Goals Scale	89
3.4	Scale Content Validity Indices (SCVI)– Choice Goals Scale	90
3.5	Content Validity Benchmarks	90
3.6	Item and Scale Content Validity Indices (ICVI and SCVI) - Vocational Outcome Expectations	91-92
3.7	Scale Content Validity Indices (SCVI) - Vocational Outcome Expectations	92
3.8	Benchmarks for Validity Indices	92
3.9	Estimation of the Factor Loading of the Confirmatory Factor Analysis (n=544) - BFI-44	95
3.10	Goodness of Fit Estimates	96
3.11	Estimation of Convergent Validity through Average Variance Explained and Reliability Analysis	96
3.12	Estimation of Discriminant Validity through Factor Covariances	97
3.13	Estimation of the Factor Loading of the Retained Items of CDMSE-17 Scale during Confirmatory Factor Analysis (n=231)	98-99
3.14	Goodness of Fit Estimates	99
3.15	Estimation of Convergent Validity through Average Variance Explained and Reliability Analysis	100
3.16	Estimation of Discriminant Validity through Factor Covariances	100
3.17	Exploratory Factor Analysis (Trial-1) - Revised Vocational Outcomes Expectation Scale	101-102
3.18	Exploratory Factor Analysis (Trial-2) - Revised Vocational Outcomes Expectation Scale	102
3.19	Estimation of the Factor Loading of the Revised Vocational Outcomes Expectation Scale during Confirmatory Factor Analysis (n=217)	104
3.20	Goodness of Fit Estimates	104

3.21	Estimation of Convergent Validity through Average Variance Explained and Reliability Analysis	105
3.22	Estimation of Discriminant Validity through Factor Covariances	105
3.23	Exploratory Factor Analysis (Trial-1) - Career Choice Goals Scale	106
3.24	Exploratory Factor Analysis (Trial-2) - Career Choice Goals Scale	107
3.25	Estimation of the Factor Loading of the Career Choice Goals Scale during Confirmatory Factor Analysis (n=174)	108
3.26	Goodness of Fit Estimates	109
3.27	Estimation of Convergent Validity through Average Variance Explained and Reliability Analysis	109
3.28	Estimation of Discriminant Validity through Factor Covariances	110
4.1	Descriptive Analysis of Demographical Variables	113
4.2	Summary of Descriptive Statistics Estimation of Personality in Senior Secondary School Students	118
4.3	Summary of Descriptive Statistics Estimation of Career Decision-Making Self-Efficacy (CDMSE), Outcome Expectations (VOE) and Choice Goals in senior secondary school students	120
4.4	Relationship between Personality and Choice Goals in senior secondary school students	122
4.5	Relationship between Personality and Career Decision Making Self-Efficacy in senior secondary school students	127
4.6	Relationship between Career Decision Making Self-Efficacy and choice goals in senior secondary school students	130
4.7	Relationship between Personality and Outcome Expectations (OE) in senior secondary school students	131
4.8	Relationship between Outcome Expectations and choice goals in senior secondary school students	134
4.9	Regression Analysis between Openness personality type and Choice Goals	137
4.10	Regression Analysis between Conscientiousness personality type and Choice Goals	138
4.11	Regression Analysis between Extroversion personality type and Choice Goals	140

4.12	Regression Analysis between Agreeableness personality type and Choice Goals	142
4.13	Regression Analysis between Neuroticism personality type and Choice Goals	143
4.14	Regression Analysis between Openness personality type and CDMSE	144
4.15	Regression Analysis between Conscientiousness personality type and CDMSE	146
4.16	Regression Analysis between Extroversion personality type and CDMSE	147
4.17	Regression Analysis between Agreeableness personality type and CDMSE	149
4.18	Regression Analysis between Neuroticism personality type and CDMSE	150
4.19	Regression Analysis between CDMSE and Choice Goals	152
4.20	Regression Analysis between Openness personality type and OE	153
4.21	Regression Analysis between Extroversion personality type and VOE	155
4.22	Regression Analysis between Agreeableness personality type and OE	156
4.23	Regression Analysis between Neuroticism personality type and OE	158
4.24	Regression Analysis between VOE and Choice Goals	159
4.25	Mediation Analysis (Openness → CDMSE → Choice Goals)	161
4.26	Mediation Analysis (Conscientiousness → CDMSE → Choice Goals)	164
4.27	Mediation Analysis (Extroversion → CDMSE → Choice Goals)	166
4.28	Mediation Analysis (Agreeableness → CDMSE → Choice Goals)	168
4.29	Mediation Analysis (Neuroticism → CDMSE → Choice Goals)	170
4.30	Mediation Analysis (Openness → VOE → Choice Goals)	172
4.31	Mediation Analysis (Conscientiousness → VOE → Choice Goals)	174
4.32	Mediation Analysis (Conscientiousness → VOE → Choice Goals)	176
4.33	Mediation Analysis (Extroversion → VOE → Choice Goals)	179
4.34	Mediation Analysis (Agreeableness → VOE → Choice Goals)	181
4.35	Mediation Analysis (Neuroticism → OE → Choice Goals)	183

ABSTRACT

Adolescence, a critical period for career exploration, is marked by the challenges of aligning personal aspirations with future educational and occupational goals. This phase necessitates an understanding of the personal and psychological factors that shape students' decisions, especially as they transition from school to higher education or the workforce. Recognizing these complexities, this research investigates how personality traits and mediating psychological constructs contribute to the clarity, achievability, and specificity of career choice goals.

Grounded in Five-Factor Model (FFM) of Personality and Social Cognitive Career Theory (SCCT), the study integrates two robust theoretical frameworks for providing detailed information regarding interplay among personality and career decision-making processes. FFM classifies personality into five fundamental dimensions: Agreeableness, Openness, Neuroticism, Conscientiousness, and Extraversion, each independently influencing individual preference, behaviors, and motives. These traits influence how students perceive opportunities, set goals, and navigate challenges. SCCT complements this framework by emphasizing the psychological mechanisms underlying career-related decisions, particularly the roles of self-efficacy (CDMSE) and outcome expectations (VOE). Together, these frameworks bridge the gap between personality and psychological readiness, offering insights into how intrinsic and extrinsic factors converge to shape career aspirations.

The study employs a quantitative research design, targeting 568 senior secondary students from Central Board of Secondary Education (CBSE)-affiliated schools in Tripura, India. The sample, drawn through stratified random sampling, represents diverse socio-economic and cultural backgrounds, ensuring the generalizability of findings within the regional context. Information collected through specified and validated instruments: Revised Vocational Outcome Expectations Scale (VOES), Big Five Inventory (BFI-44) for personality traits, Career Choice Goals Inventory (CCGI), and Career Decision-Making Self-Efficacy Scale (CDMSE-SF). These tools underwent rigorous validation, including confirmatory factor analysis (CFA), to ensure their relevance and reliability for the Indian adolescent population. Statistical analyses were performed using IBM SPSS and JAMOVI software, which facilitated correlation, regression, and mediation analysis to examine both direct and indirect

relationships among variables.

Findings reveal that personality traits significantly impact career decision-making self-efficacy, vocational outcomes and career choice goals. A pivotal finding of the study is the mediating role of CDMSE in linking personality traits to career choice goals. CDMSE is measure of person's confidence in their capacity to conduct tasks like considering options, obtaining data, coming to conclusions, and establishing reasonable goals. The analysis underscores that higher levels of CDMSE enable students to translate personality-driven tendencies into actionable and specific career goals. For instance, students with high Openness or Extraversion demonstrate increased confidence in navigating the complexities of career decision-making, resulting in clearer and more attainable aspirations. Similarly, Conscientious students leverage their disciplined approach to strengthen their self-efficacy, enabling systematic goal achievement.

Vocational Outcome Expectations (VOE) also plays a mediating role in the predictive relationship existing between personality and career choice goals. VOE encompasses beliefs about the anticipated rewards and benefits of career choices, such as financial stability, job satisfaction, and personal fulfillment. The findings highlight that students with positive outcome expectations are more likely to pursue ambitious and meaningful career goals. These expectations motivate students to invest in their career development, particularly when supported by personality traits like Extraversion and Agreeableness, which enhance optimism and proactive engagement with future opportunities.

The study advances theoretical understanding by integrating personality traits into SCCT, thus extending its application to adolescent populations in the Indian context. In addition to providing a nuanced viewpoint on career development, it emphasizes the significance of personality-driven self-efficacy and expectancies in forming career plans. This integration bridges individual differences and psychological constructs, providing a holistic framework for understanding career decision-making processes. Moreover, the research fills a notable gap in the literature, as previous studies have predominantly focused on adults or college students, neglecting the unique developmental needs and challenges faced by adolescents in senior secondary education.

Practical implications of the findings are profound, particularly for educators, counselors, and policymakers. The strong influence of CDMSE underscores the need for targeted interventions that build students' confidence in career decision-making. Programs incorporating experiential learning, career exploration workshops, and mentorship opportunities can significantly enhance self-efficacy. For example, initiatives that simulate real-world career challenges can empower students to approach decision-making with greater confidence and resilience. Similarly, interventions addressing VOE can align students' aspirations with realistic and rewarding career pathways. Career counseling sessions can focus on helping students visualize the long-term benefits of their career choices, fostering a sense of purpose and motivation.

The findings also emphasize the importance of personalized career guidance. Understanding the interplay between personality traits and psychological readiness allows educators to tailor interventions to individual needs. For instance, students with high Openness may benefit from opportunities that encourage exploration and creativity, such as internships or project-based learning. In contrast, students with high Conscientiousness may thrive in structured programs that emphasize goal-setting and systematic planning. Those with high levels of Neuroticism may require additional emotional support and confidence-building activities to overcome anxiety and indecision.

This study also contributes to educational policy by providing evidence-based recommendations for integrating career development into the school curriculum. Policies that mandate career counseling, psychological support, and skill-building workshops can address the diverse needs of students, ensuring that all have access to resources that support their aspirations. Furthermore, the study highlights the importance of involving parents and community stakeholders in career decision-making process. Collaborative efforts can create supportive ecosystem that reinforces students' confidence and aligns their goals with societal and economic opportunities.

For investigating relationships between variables, research utilizes significant statistical methods, including regression, correlation, descriptive statistics, and mediation analysis. Descriptive statistics provide an overview of the sample characteristics, while inferential analyses establish the strength and direction of

associations. Mediation analysis, in particular, illuminates the indirect pathways through which personality traits influence career choice goals via CDMSE and VOE. The use of validated scales and a representative sample ensures the reliability and generalizability of findings, contributing to the robustness of the research.

Research investigation recognizes some drawbacks despite its contributions. The application of self-reported data enhances the potential of response biases such as inaccurate self-assessments or social desirability. Furthermore, the cross-sectional design makes it more difficult to draw conclusions about causality or to document the long-term effects of psychological and personality traits on professional advancement. By utilizing longitudinal designs while employing objective metrics to evaluate self-reported data, future research might circumvent these limitations. Expanding the study to include diverse educational contexts and cultural settings would further enhance the generalizability of findings.

Current research offers an in-depth examination of the factors affecting profession choice aspirations in senior secondary school students. By integrating personality traits with psychological mediators, it underscores essential importance of self-efficacy and outcome expectations in influencing career goals. Results underscore the requirement for a comprehensive approach to career guidance that takes into account individual variances, psychological preparedness, and environmental elements. As students navigate the complexities of career decision-making, the insights from this research can empower them to align their aspirations with achievable outcomes, ensuring a fulfilling transition from school to work or higher education. The study's theoretical contributions and practical implications make it a valuable resource for advancing the understanding of adolescent career development and supporting students in realizing their potential.

Keywords: Adolescent career development, Career decision-making self-efficacy (CDMSE), Career counseling, Career guidance, Career choice goals (CCG), Five-Factor Model (FFM), Personality traits, Social cognitive career theory (SCCT), Senior secondary school students, Vocational psychology, Vocational outcome expectations (VOE).

CHAPTER I

INTRODUCTION

1.1 Introduction

The process of career decision-making in adolescence is crucial and intricate, particularly for senior secondary school students who face the critical task of aligning their aspirations with future career goals. This phase is characterized by significant challenges, including navigating external expectations, understanding personal preferences, and managing the psychological pressures associated with life-shaping decisions (Savickas, 2013). Central to this process are Choice Goals, which represent the specific career paths or educational milestones students aim to achieve (Lent et al., 1994).

Research in career development emphasizes the significance of personality traits in influencing career decisions and overall decision-making capabilities. The FFM of Personality, encompassing traits like conscientiousness, agreeableness, openness, extraversion, and neuroticism, offers an extensive framework for comprehension of how inherent personality characteristics shape students' aspirations and strategies (McCrae and Costa Jr, 1997). These traits not only influence career preferences but also affect motivation, persistence, and adaptability when faced with challenges (John et al., 2008).

Building upon the SCCT (Social Cognitive Career Theory), the roles of CDMSE as well as Outcome Expectations emerge as critical mediators in this dynamic. CDMSE denotes an individual's confidence in their capacity to make informed and efficient career choices, while outcome expectations denote the perceived consequences or rewards associated with specific career paths (Lent et al., 1994). Together, these constructs act as psychological mechanisms that bridge the relationship among personality traits as well as Choice Goals, highlighting the dual impact of individual and contextual elements on professional development.

Thus, the concept of Choice Goals - the specific career paths or educational milestones that students strive to achieve - has garnered significant attention in career development research (Lent et al., 1994). Similarly, character attributes, as described

by the FFM (Five-Factor Model), alongside psychological constructs such as CDMSE (Career Decision-Making Self-Efficacy) as well as Outcome Expectations, are essential for comprehension of how individuals make informed career decisions.

1.2 Theoretical Frameworks of the Study

This study is grounded in two key theoretical frameworks: the Social Cognitive Career theory (SCCT) and the Five Factor Model (FFM) of Personality. These frameworks together offer a comprehensive foundation for understanding the relationships between personality traits, CDMSE, OE, and Choice Goals.

Lent, Brown, and Hackett (1994) created the SCCT, which highlights the dynamic interaction of behavioral, contextual, and individual elements in career development. Its core constructs—self-efficacy, outcome expectations, and personal goals—provide a structured approach to understanding how psychological mechanisms shape career decision-making.

The FFM, also known as the Big 5 personality model, categorizes personality traits into 5 dimensions: conscientiousness, agreeableness, openness, extraversion, and neuroticism. These traits influence individuals' behaviors, preferences, and decision-making styles, making the FFM a valuable framework for studying how personality impacts career-related processes.

1.2.1 Social Cognitive Career Theory (SCCT)

SCCT, which was created by Lent, Brown, and Hackett (1994), highlights how behavioral, contextual, and personal elements interact dynamically to shape a person's career. Three fundamental constructs are at the center of SCCT:

- **Self-Efficacy:** Confidence in one's ability to perform specific career-related tasks.
- **Outcome Expectations:** Beliefs about the consequences of pursuing certain career paths.
- **Personal Goals:** The aspirations and objectives individuals strive to achieve in their careers.

SCCT posits that self-efficacy as well as OE significantly influences the formulation of career goals. By exploring the mediating roles of CDMSE and OE, this study aligns with SCCT's emphasis on the psychological mechanisms that guide career decision-making.

1.2.2 Five-Factor Model (FFM) of Personality

The FFM, also referred to as the Big 5, categorizes personality traits into 5 dimensions: **Conscientiousness, Agreeableness, Openness, Extraversion, and Neuroticism** (McCrae and Costa Jr., 1997). These traits influence how individuals approach career-related tasks, such as goal-setting and decision-making. For instance:

- **Conscientiousness** is associated with structured and ambitious career goals.
- **Openness** fosters the exploration of diverse career paths.
- **Neuroticism** may hinder career planning due to anxiety or indecision.

This study integrates the SCCT and the FFM to provide a comprehensive framework for analyzing the interplay between psychological and personality-driven factors in career decision-making. By combining these two frameworks, the study examines how personality traits influence students' career Choice Goals through the mediating roles of CDMSE and Outcome Expectations.

The FFM explores how personality dimensions—conscientiousness, extraversion, agreeableness, openness, and neuroticism shape behaviors and preferences, offering insights into students' career-related tendencies. By integrating FFM, this study investigates how these traits impact career Choice Goals, particularly when mediated by CDMSE and outcome expectations.

The SCCT complements this perspective by emphasizing the psychological mechanisms underlying career decision-making. Its core constructs self-efficacy, OE, as well as goals - provide a structured approach to understanding how students form and pursue their career aspirations.

Together, SCCT and FFM create a holistic framework for exploring the intricate relationships between personality traits, CDMSE, outcome expectations, and Choice Goals. This integration bridges theoretical insights with practical applications,

offering a deeper understanding of how personal and psychological factors influence students' career decision-making processes and development.

1.2.3 Relevance of SCCT

Lent, Brown, and Hackett (1994) created the Social Cognitive Career Theory (SCCT), which highlights the dynamic interaction of behavioral, contextual, and individual elements in determining career growth (Figure 1).

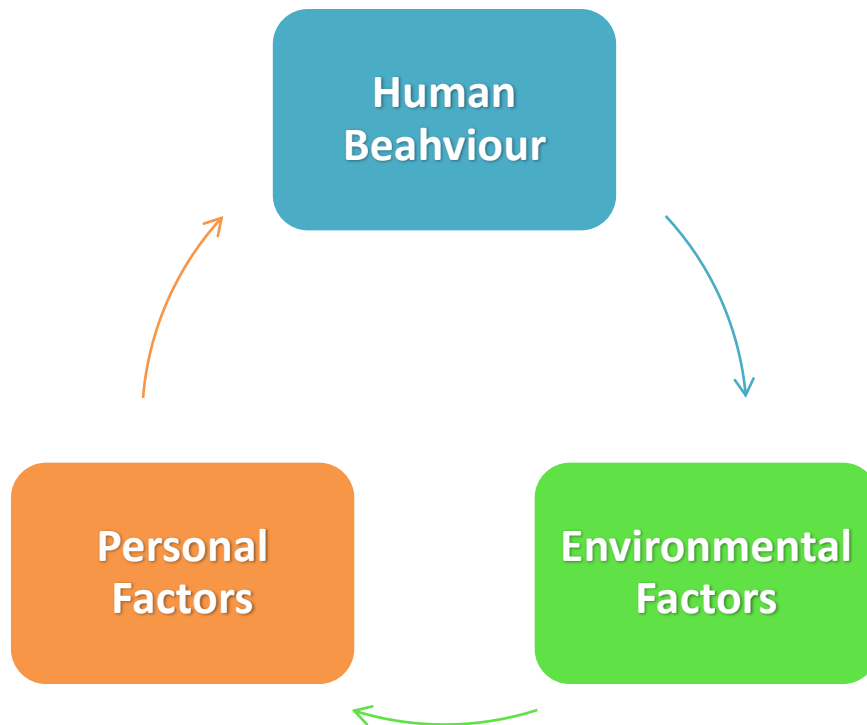


Fig.1.1 Albert Bandura's Triadic Reciprocal Causation (Mutual influences between three sets of variables)

This theory highlights three core constructs: **self-efficacy**, **outcome expectations**, and **personal goals**, which collectively influence career-related decision-making (Figure 2). SCCT posits that individuals' career decisions are influenced by their belief in their ability to perform specific tasks (self-efficacy), their expectations about the outcomes of their actions (outcome expectations), and their aspirations or goals.

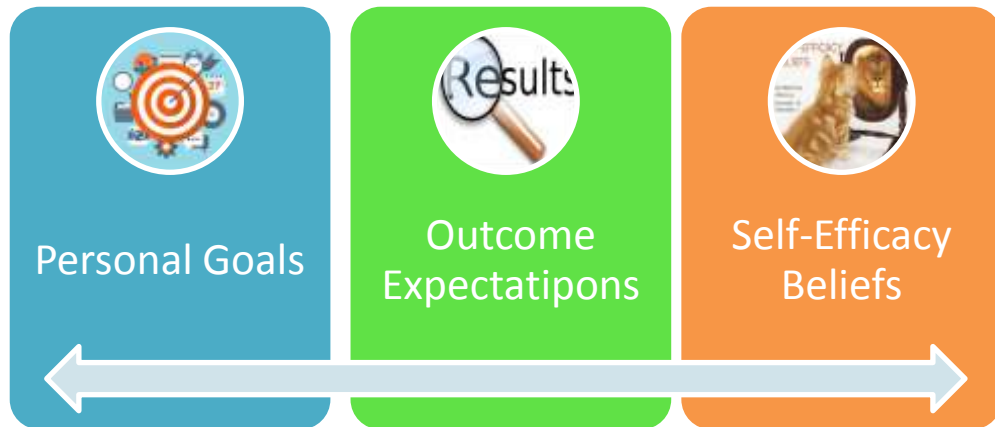


Fig.1.2 Basic building blocks of SCCT

Self-efficacy, a psychological construct pivotal in career development, is derived from Albert Bandura's SCT (social cognitive theory). Self-efficacy, according to Bandura (1977), is the conviction that one can plan and carry out the actions necessary to handle potential circumstances.

Within the context of career development based on Bandura's social cognitive theory (1986), Robert W. Lent, Steven D. Brown, and Gail Hackett in 1994, in their theory (SCCT) explain three interconnected aspects—self-efficacy, outcome expectations, and personal goals (Lent et al., 1994).

Within the context of this study, SCCT provides a robust framework to examine how CDMSE, as a self-efficacy concept, and the association among personality traits and job choice goals are mediated by outcome expectations. Addressing the interaction of personal traits and social-cognitive factors, SCCT offers insights into the processes through which students form and pursue their career aspirations.

1.2.4 Key Components of SCCT:

- i. **Self-Efficacy:** The conviction that one can accomplish career-related tasks, including evaluating career possibilities, establishing objectives, and conquering obstacles (Bandura, 1986).
- ii. **Outcome Expectations:** The belief about the likely outcomes of engaging in particular career behaviors, such as achieving job satisfaction or financial stability (Lent et al., 1994).
- iii. **Goals:** The personal objectives that guide individuals' career paths and decision-making processes.

According to SCCT, the development of profession choice goals is strongly influenced by outcome expectations and self-efficacy beliefs. In this study, SCCT enables the investigation of how CDMSE as well as outcome expectations moderate the association between career choice goals and personality factors. It highlights how important one's beliefs are while choosing a career, which is particularly relevant for senior secondary school students who are in a developmental stage of forming their career aspirations.

SCCT's focus on self-efficacy aligns with the study's examination of CDMSE as a mediator among personality traits and career choice goals. Students having elevated CDMSE are more likely to have confidence in navigating career choices and setting meaningful career goals (Betz and Hackett, 1986).

SCCT underscores the importance of outcome expectations, which are crucial in understanding how students' beliefs about the consequences of career choices influence their goals (Lent and Brown, 2006). The study can explore how these expectations are shaped by personality traits and CDMSE.

Incorporating SCCT, the study can analyze how self-efficacy and OE operate within the broader context of personality traits to guide career decision-making, making it an appropriate theoretical framework.

1.2.5 Relevance of the FFM of Personality

The FFM, also referred to as the Big 5 personality traits, is one of the most widely used frameworks for understanding personality. It divides personality into five major categories: Conscientiousness, Agreeableness, Openness, Extraversion and Neuroticism (McCrae and Costa Jr, 1997). These traits are often referred to by the acronym "OCEAN" or "CANOE." Each trait captures a distinct aspect of personality (as shown in Figure 1.1).

Each of these dimensions/traits influences how individuals perceive and approach their career paths, impacting their career choice goals.

1.2.6 Key Dimensions of FFM

- i. **Openness:** Creativity, curiosity, and a willingness to explore new ideas and career paths.

- ii. **Conscientiousness:** Goal-oriented behavior, responsibility, and the ability to plan and organize career-related tasks.
- iii. **Extraversion:** Sociability, assertiveness, and energy in social interactions, which can affect career preferences for roles involving teamwork or leadership.
- iv. **Agreeableness:** Empathy, cooperation, and interpersonal harmony, influencing careers in social and helping professions.
- v. **Neuroticism:** Emotional instability, which can affect decision-making and career choices, leading to more stress or avoidance behaviors in decision-making.

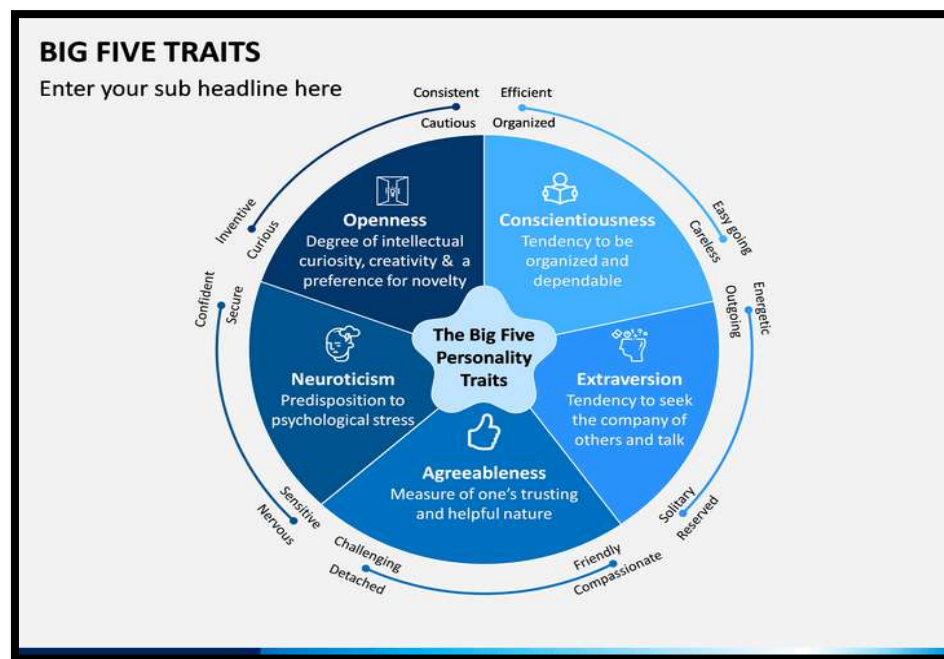


Fig.1.3 The Big Five Personality Model of J. M. Digman (1990), by Shawn Bennett (SketchBubble). Sources: <https://www.sketchbubble.com/>

In the present study, the FFM of personality, also referred to as the Big Five, has been chosen as the primary framework for assessing personality traits. This decision is grounded in several key considerations that align with the study's objectives, particularly in understanding how personality traits influence CDMSE, vocational outcome expectations, and career choice goals among secondary school students. While other models, such as the RIASEC model or the MBTI (Myers-Briggs Type Indicator), offer valuable insights into personality and career choices, the FFM is uniquely suited to this study for the following reasons:

1.2.7 Comprehensive Framework of FFM

The FFM provides an integrative view of personality, offering insights into how various traits influence career-related behaviors such as goal-setting and persistence (Judge et al., 2001). This is crucial for a study examining the mediating role of CDMSE.

1. **Applicability to Career Decision-Making:** Traits like conscientiousness and extraversion directly correlate with career behaviors, making the FFM particularly suitable for linking personality with self-efficacy and vocational outcomes (Barrick and Mount, 1991b).
2. **Universality and Cross-Cultural Stability:** One of the strengths of the Five-Factor Model is its universality and demonstrated stability across diverse cultures and populations (McCrae and Costa Jr., 1997). The FFM's cross-cultural stability ensures reliable assessments across diverse student populations (McCrae and Costa Jr., 1997). a key consideration for this study of secondary school students from various backgrounds.
3. **Well-Suited for Adolescents and Career Development Studies:** The FFM has been successfully applied to studies involving adolescents and young adults, making it highly relevant for the current research focusing on secondary school students (Soto et al., 2011).
4. **Reliability and Ease of Measurement:** Compared to other models like the MBTI, which has been criticized for its lack of test-retest reliability and predictive validity (Pittenger, 2005), the FFM is widely regarded for its consistency and ease of measurement. The FFM traits are easily accessed through well-established, psychometrically sound instruments such as the NEO Personality Inventory, which provides reliable and valid assessments that are suitable for research in educational settings (McCrae and Costa J., 1997).

1.2.8 High and Low Expressions of Big Five Traits or FFM

The FFM of personality traits Conscientiousness, Agreeableness, Openness, Extraversion as well as Neuroticism-can each are expressed at high or low levels, which describe the extent to which an individual exhibits certain characteristics.

- **High levels** of a trait mean that the individual strongly exhibits the characteristics associated with that trait. For instance, whilst someone with a high Conscientiousness score is very structured and trustworthy, someone with a high Openness score is highly imaginative and inquisitive.
- **Low levels** of a trait mean that the individual exhibits fewer of the characteristics associated with that trait. For instance, someone low in Extraversion is more reserved and prefers solitude, while someone low in Agreeableness may be more competitive and less cooperative.

The Big Five personality traits encompass Conscientiousness, Agreeableness, Openness, Extraversion and Neuroticism, each with high and low levels that manifest differently:

- **Openness:** High levels indicate creativity, curiosity, and a willingness to explore new ideas and experiences. Individuals are imaginative and open-minded. Low levels suggest practicality, preference for routine, and resistance to change, with individuals being more conventional and down-to-earth.
- **Conscientiousness:** High levels are associated with organization, reliability, and a strong sense of duty. These individuals are disciplined, goal-oriented, and meticulous. Low levels indicate impulsiveness, disorganization, and a lack of reliability, with individuals being more spontaneous and carefree.
- **Extraversion:** High levels reflect sociability, assertiveness, and high energy. Extraverts are outgoing, enthusiastic, and thrive in social settings. Low levels correspond to reserve, quietness, and a preference for solitude, with individuals being more introspective and independent.
- **Agreeableness:** High levels denote kindness, empathy, and a cooperative nature. Agreeable individuals are compassionate, trusting, and helpful. Low levels suggest antagonism, skepticism, and a competitive nature, with individuals being more critical and self-centered.
- **Neuroticism:** High levels are characterized by emotional instability, anxiety, and moodiness. These individuals are prone to stress and negative emotions. Low levels indicate emotional stability, calmness, and resilience, with individuals being more relaxed and less affected by stress.

Table 1.1 The Big Five Personality Model (Parks-Leduc et al., 2015)

Trait	High Level	Low Level
Openness	Imaginative, creative, curious, open to new experiences	Practical, routine-oriented, resistant to change
Conscientiousness	Organized, disciplined, goal-oriented, reliable	Impulsive, disorganized, careless
Extraversion	Sociable, assertive, energetic, outgoing	Reserved, quiet, solitary
Agreeableness	Kind, empathetic, cooperative, trusting	Suspicious, uncooperative, antagonistic
Neuroticism	Anxious, emotional, prone to stress	Calm, emotionally stable, resilient

A clear overview of the Big Five traits and how they manifest at high and low levels is shown in the table (Table 1.1).

In this present study, the FFM of traits theory is utilized as the theoretical model to provide a robust framework for examining how different personality traits influence career choice goals through the mediating effects of CDMSE and outcome expectations.

The FFM is particularly relevant for understanding how personality traits influence career choice goals. For example, students with high conscientiousness are more likely to set structured, ambitious goals as well as pursue career paths requiring discipline, whereas those with high neuroticism may experience more career-related anxiety, leading to indecision or avoidance (Judge et al., 2001). This study can explore how these personality traits shape career decision-making behaviors, including career choice goals.

Integrating the FFM, the study acknowledges that personality traits significantly influence students' perceptions of their abilities, expectations, and career aspirations, which directly inform their career decision-making process.

1.2.9 Integration of SCCT and FFM in the Present Study

Combining SCCT and the FFM provides a comprehensive framework to understand how personality traits (FFM) interact with self-efficacy as well as outcome expectations (SCCT) to shape career choice goals. The integration allows the study to:

- Examine how conscientiousness, openness, and extraversion can influence students' self-efficacy as well as result expectations, thereby shaping their career aspirations.
- Investigate how neuroticism might reduce CDMSE, leading to less defined career goals or avoidance of specific career paths.
- Focus on career choice goals as the central outcome, influenced by both intrinsic factors (personality traits) and psychological factors (self-efficacy, outcome expectations).

SCCT explains the psychological processes behind career decision-making, while the FFM provides insights into how enduring personality traits influence these processes. Together, they offer a holistic comprehension of the elements that shape career choice goals among students.

The combination of SCCT and FFM helps to clarify how personality traits influence career choice goals through CDMSE and OE, allowing for a deeper exploration of the mediating roles in career decision-making.

The integration of SCCT and the FFM of personality as the theoretical framework for this study is crucial for understanding the dynamic relationship among personality traits, CDMSE, outcome expectations, and career choice goals. SCCT provides a solid psychological foundation for exploring self-efficacy and outcome expectations, while the FFM offers a comprehensive understanding of how personality traits influence career-related decisions. Together, these theories allow the study to investigate how these factors interact to shape career choice goals among senior secondary school students, making them an ideal combination for this research.

This framework aligns with existing literature that highlights the mediating roles of self-efficacy and outcome expectations in the relationship between personality and career outcomes (Lent et al., 2002; McCrae and Costa Jr., 1997). It contributes to a deeper understanding of how senior secondary school students navigate the multifaceted process of career choice goal formation.

This study utilizes the FFM to examine how individual differences in personality influence career choice goals. Each trait impacts career-related behaviors and preferences in unique ways. For instance, conscientious students are more likely to set structured goals, while students high in neuroticism may face decision-making difficulties (Judge et al., 2001).

1.2.10 CDMSE and its Potential Mediating Role on Choice Goals

CDMSE, as defined by SCCT, is a person's confidence in their capacity to make wise career decisions. It encompasses self-confidence in evaluating career options, setting goals, and taking action toward career-related choices (Penn and Lent, 2019).

CDMSE dramatically impacts how a person thinks, feels, and acts. It focuses on an individual's belief in their ability to perform tasks associated with career decision-making, such as exploring career options, deciding on educational and career alternatives, and resolving indecisions and difficulties in pursuit of career goals (Bandura, 1986). CDMSE affects not only career choices but also persistence in the face of challenges and setbacks, shaping interests, influencing goals, and affecting career-oriented decisions (Lent et al., 1994).

Research suggests that CDMSE acts as a mediator among personality traits and career choices. CDMSE is crucial in career development, influencing career exploration, goal selection, planning, and problem-solving. Individuals with higher CDMSE are more likely to explore various career options, evaluate them effectively, and commit to specific paths, bridging the gap between personality traits and proactive career decision-making (Lent et al., 1994 ;Yu et al., 2021; Turda, 2024).

CDMSE bridges the gap among personality traits and proactive career decision-making. Factors influencing CDMSE include:

- i. **Past Experiences:** Positive experiences with career-related tasks (e.g., job search, networking) enhance self-efficacy.

- ii. **Social Persuasion:** Encouragement and feedback from others (e.g., mentors, career counselors) impact self-efficacy.
- iii. **Emotional States:** Feelings of anxiety or confidence affect self-efficacy.
- iv. **Vicarious Learning:** Observing others' successful career decisions influences self-efficacy.

The CDMSE, developed by Taylor and Betz in 1983, consists of five dimensions that assess self-efficacy related to career decision-making tasks and behavioral outcomes:

- i. **Goal Setting (GS):** Involves defining clear, realistic, and attainable career goals based on precise self-appraisal and comprehensive occupational information. This dimension is critical as it coordinates subsequent efforts in planning and problem-solving (Hesse et al., 2015). Goals should be Specific, Measurable, Achievable, Relevant, and Time-Bound (SMART) (Haughey, 2014).
- ii. **Gathering Occupational Information (GI):** Assesses the ability to seek and understand occupational details. Effective gathering of occupational information allows individuals to make informed decisions based on a comprehensive understanding of various vocations. This process includes using resources such as online databases, career fairs, informational interviews, and professional networking (Duru, 2022).
- iii. **Problem-Solving (PS):** Evaluates the ability to address challenges and obstacles related to career choices. Individuals with high CDMSE in problem-solving are proficient at identifying potential solutions, adapting strategies as necessary, and persisting in the face of obstacles. This capacity is essential for maintaining momentum toward career goals even in the face of adversity.
- iv. **Planning (PL):** Planning is crucial for achieving career objectives. It includes creating a roadmap, setting timelines, and developing strategies to reach career goals. High CDMSE appears as a proactive approach to dealing with career planning, where people feel confident about their capacity to plan and follow through with a detailed action (Plakhotnik et al., 2020).

- v. **Self-Appraisal (SA):** Involves assessing one's abilities, strengths, and weaknesses in the context of career choices. Self-appraisal involves critically and objectively evaluating skills, interests, and values. This component is fundamental as it underpins all other aspects of career decision-making. Tools such as personality tests, skill assessments, and values inventories can aid in this self-exploration process (Ebner et al., 2020).

These components collectively contribute to an individual's belief in their capacity to make informed and successful career decisions, enhancing overall career self-efficacy and leading to better career outcomes (Purnama and Ernawati, 2021; Jung and Yoo, 2022).

In career psychology, CDMSE is a key concept that emphasizes how confidence in one's career competence influences broader career development. Rooted in SCCT, which extends Albert Bandura's social cognitive theory, CDMSE acts as a mediator among personal attributes (like personality traits, interests, and abilities) and career behaviors and outcomes. This mediation suggests that it is not just the possession of these attributes, but the belief in one's ability to effectively use them in career contexts, that drives meaningful career engagement and decision-making (Lent et al., 1994).

In career psychology, personality traits have been widely studied for their effects on career choices and outcomes. Key studies, such as those conducted by Creed et al., (2004) and Judge and Bono (2001), indicate that certain personality traits, such as conscientiousness, neuroticism, and extraversion, significantly shape one's career pathways. These traits do not act alone but impact career behavior and career-related outcomes through their interaction with CDMSE.

Conscientiousness, characterized by diligence, carefulness, and disciplined behavior, is strongly correlated with career success and satisfaction. Extraversion typically relates to success in positions requiring interaction and cooperation, as sociability and assertiveness are important qualities for work achievement. Conversely, neuroticism, unless effectively managed, may pair with emotional instability to impede career success. These traits affect not only the type of job a person chooses but also how they navigate their career development.

Judge and Bono (2001) highlighted the important role of CDMSE in translating personality traits into career success and satisfaction. This mediation suggests that beneficial personality characteristics alone are not sufficient for career success. Instead, it is the belief in one's capability to effectively use these characteristics in making career-related decisions that drive significant career engagement and decision-making.

For instance, an individual with high conscientiousness is likely to have high CDMSE, enabling them to effectively plan and set goals, which are crucial behaviors for career advancement and satisfaction. Such individuals may approach their career planning systematically, with clear and achievable goals, and make detailed plans to attain these goals. High CDMSE means they have confidence in their ability to plan and make informed career decisions, leading to successful outcomes.

Further empirical support for the mediating role of CDMSE is provided by Judge et al. (2007), who studied how personality influences career success through self-efficacy. They found that individuals with high conscientiousness excel not only in setting and attaining goals but also in overcoming barriers in career development due to high CDMSE. This efficacy belief helps individuals remain motivated and resilient against career challenges, fostering long-term satisfaction and success.

1.2.11 Outcome Expectations and its Potential Mediating Role on Choice Goals

Outcome expectations refer to an individual's beliefs about the potential consequences of their actions or decisions. Specifically, in the context of careers, outcome expectations relate to the anticipated outcomes associated with specific career-related behaviors. These expectations significantly influence an individual's motivation, commitment, and choices within their career journey (Ireland and Lent, 2018). High positive outcome expectations encourage career engagement and risk-taking. Types of outcome expectations include:

- i. **Instrumental Outcomes:** These are tangible rewards associated with career decisions, such as salary, job security, and benefits. Instrumental outcomes are often the primary motivators for individuals when choosing a career path, as they provide financial stability and security (Niğde Ömer Halisdemir Üniversitesi et al., 2022).

- ii. **Expressive Outcomes:** These outcomes refer to the emotional or psychological benefits derived from career decisions. Examples include job satisfaction, personal fulfillment, and work-life balance. Expressive outcomes are crucial for long-term career satisfaction and overall well-being (Niğde Ömer Halisdemir Üniversitesi et al., 2022).
- iii. **Social Outcomes:** Social outcomes involve the impact of career decisions on relationships and social standing. This includes respect from peers, approval from family, and the ability to positively influence others. Social outcomes can enhance an individual's sense of belonging and social support (Siddiky and Akter, 2021).

These outcome expectations play a significant role in shaping career decisions and overall career satisfaction. Understanding these different types of outcomes can help individuals make more informed and fulfilling career choices.

If individuals expect positive outcomes from their career choices, they are more likely to set challenging and fulfilling goals. For example, an open individual who anticipates diverse and rewarding career opportunities is more likely to explore a wide range of career options (Zhang et al., 2024). On the other hand, if individuals expect negative outcomes, they might avoid certain career paths or set less ambitious goals. For example, a neurotic individual with negative outcome expectations might shy away from high-stress careers, even if they have the potential to excel in them (Zhang et al., 2024).

Outcome expectations play a crucial role in shaping educational and occupational choices, as positive expectations can motivate individuals to pursue and persist in desired careers (Bandura, 2001; Lent and Brown, 2006). For example, a student's belief that a career in medicine offers high income, social prestige, and personal fulfillment can drive them to pursue this profession despite its demanding nature (Fouad et al., 2006b). Counselors should help students identify career paths that align with their outcome expectations to enhance satisfaction and success (Brown and Lent, 2004).

In the context of career and academic decision-making, outcome expectations act as mediators between personal attributes and behavioral outcomes, as posited by Social

Cognitive Career Theory(Lent et al., 1994). Personal attributes like personality traits and interests influence beliefs about the consequences of behaviors, shaping decisions and actions regarding career and academic pathways. For instance, someone with high openness may develop positive expectations about unconventional or creative careers, leading them to pursue fields in science or the arts.

Studying these expectations is significant because they translate abstract personal traits into tangible decision-making processes and behaviors, providing insights into career development (Lent and Brown, 2006). Empirical studies support the mediating role of outcome expectations. Bandura (2001) highlighted how expectations regarding job satisfaction, earning potential, and personal growth impact career decisions and efforts. Fouad et al. (2006) further elaborated on how outcome expectations mediate the relationship between environmental support and career interests among young adults, emphasizing the role of context in shaping these expectations.

1.2.12 Interplay between CDMSE and Outcome Expectations

CDMSE and outcome expectations are interrelated, each influencing the other. As self-efficacy increases, positive outcome expectations also rise, and vice versa. High self-efficacy as well as positive OE motivates individuals to explore career options, set goals, and persist in their chosen paths. Individuals with strong CDMSE and positive outcome expectations are more likely to engage in career-related activities such as networking and skill development. Both CDMSE and outcome expectations play critical roles in shaping an individual's career decision-making process. Building self-efficacy and fostering realistic positive expectations contribute to effective career planning and successful outcomes (Baglama and Uzunboylu, 2017; Jung and Yoo, 2022).

CDMSE and outcome expectations significantly shape how personality traits influence career goals. For instance:

- i. High CDMSE and Positive Outcome Expectations: A student with high conscientiousness, high CDMSE, and positive outcome expectations are likely to set and pursue ambitious career goals, believing in their ability to achieve them and expecting positive results (Zhang et al., 2024).
- ii. Low CDMSE and Negative Outcome Expectations: Conversely, a student with high neuroticism, low CDMSE, and negative outcome expectations

might set more conservative career goals, doubting their ability to succeed and fearing negative outcomes (Yu et al., 2021).

Therefore, this study aims to examine the role of personality on choice goals, with the mediating effect of outcome expectations among secondary school students in their career choice goals. By understanding how personality traits influence career decisions through outcome expectations, we can better support students in making informed and satisfying career choices.

1.2.13 Importance of Studying Personality, CDMSE, OE and Choice Goals in Secondary School Students

It is crucial to investigate personality traits, CDMSE, OE, and the development of choice goals among secondary school students. Scholarly evidence consistently highlights the significant impact of these factors on students' educational and career paths.

Research consistently underscores the importance of investigating personality traits, CDMSE, OE, and the development of choice goals among secondary school students. For instance, Penn and Lent (2019) found that CDMSE and personality traits significantly predict career decidedness and decisional difficulty (Penn and Lent, 2019).

Turda (2024) demonstrated that vocational identity and career decision-making self-efficacy are closely linked with personality traits and career planning process (Turda, 2024). Research has shown that the Big Five personality traits significantly influence self-efficacy and outcome expectations regarding career choices among adolescents. For example, personality traits such as conscientiousness and openness are positively associated with higher self-efficacy and more positive outcome expectations in career decision-making (Brown and Cinamon, 2016). Penn and Lent (2019) demonstrated that neuroticism, extroversion, and conscientiousness play crucial roles in predicting career decision status as well as decisional difficulty through their impact on self-efficacy (Penn and Lent, 2019). Additionally, Schaub and Tokar (2005) confirmed the connection between outcome expectancies, self-efficacy, career learning experiences, and the Big Five personality traits (Schaub and Tokar, 2005).

CDMSE is a fundamental part of career psychology, particularly important with regard to adolescent development. Self-efficacy is characterized as an individual's belief in their capacity to effectively perform tasks that are vital for making informed career decisions. CDMSE envelops a scope of activities from investigating different career choices and arranging future instructive directions, to defeating expected difficulties in these cycles (Betz et al. 1996). This self-efficacy belief is basic as it straightforwardly impacts how students perceive and engage with their potential career paths. Lent et al. (1994) highlights that, the higher levels of CDMSE in secondary school students are associated with more proactive career exploration and stronger decision-making capabilities.

Empowering the advancement of CDMSE among secondary school students can furnish them with the necessary confidence and skills to navigate the complexities of career planning and decision-making. This is especially significant in today's rapidly changing job market, where students will benefit from being versatile and proactive in their career strategies. Educational strategies to improve CDMSE could incorporate coordinating career exploration activities within the school curriculum such as career days, workshops on resume writing and interview skills, and sessions with career counselors. Such an environment can help students build resilience and maintain their self-efficacy through the ups and downs of career planning and decision-making processes.

Studying outcome expectations in secondary school students is crucial as high expectations drive student success. When educators set and communicate high academic expectations, students engage more actively, leading to improved learning outcomes, increased interest, and motivation. They also exhibit positive behaviors and higher attendance rates. High academic expectations influence teaching practices, shaping instructional methods, feedback, and coursework rigor. Students benefit from challenging work that aligns with high standards. Setting high expectations fosters responsibility, accountability, and an understanding of consequences, creating a positive learning environment that promotes student engagement and academic achievement.

Choice goals are crucial objectives that students set for their educational and career futures, influenced by their personality traits and self-efficacy beliefs. These goals

direct students' efforts and focus, shaping their academic and career paths. Locke and Latham (2002), show that clear, specific goals enhance motivation by providing concrete targets. This clarity helps students persist through challenges and plan their education and careers more effectively. By setting SMART goals (Haughey, 2014) students can create a structured roadmap to achieve their aspirations, identifying necessary skills, qualifications, and experiences. Educators, career counselors, and parents should support the development of these goals to ensure better educational and career outcomes.

The significance of studying these psychological constructs among senior secondary school students also extends to educational policy and practice. Therefore, this study also attempts to study the role of personality on choice goals with the mediating effect of CDMSE and outcome expectations among secondary school students.

1.3 Overview of Influencing Factors of Career Decision-Making: Personality, CDMSE, and Outcome Expectations

The process of career decision-making among senior secondary school students is shaped by a complex interplay of personality traits, CDMSE, and outcome expectations. These factors interact to influence how students perceive, evaluate, and pursue their career choice goals.

1.3.1 Personality

Personality, defined as a set of enduring characteristics that influence an individual's behaviors, emotions, and thoughts, plays a foundational role in shaping career aspirations and decision-making. The FFM of personality –Neuroticism, Extraversion, encompassing Openness, Agreeableness, and Conscientiousness- is particularly relevant in understanding career-related behaviors:

- i. **Openness:** Individuals high in openness exhibit curiosity and creativity, making them more likely to explore diverse career paths and innovative opportunities (McCrae and Costa Jr, 1997).
- ii. **Conscientiousness:** Highly conscientious students tend to approach career decisions with discipline and goal-oriented behaviors, often leading to ambitious and structured career goals (John et al., 2008).

- iii. **Extraversion:** Extroverted individuals thrive in social and interactive environments, favoring careers involving leadership or teamwork (Barrick and Mount, 1991).
- iv. **Agreeableness:** This trait fosters empathy and collaboration, influencing preferences for careers in social work, healthcare, or education.
- v. **Neuroticism:** High levels of neuroticism can result in anxiety and indecision, potentially hindering effective career planning and decision-making (Judge et al., 2007).

Personality qualities like extraversion, openness to new experiences, and conscientiousness can have a big impact on the kinds of job objectives people make (De Jong et al., 2019; Zhao and Ji, 2024). For example, individuals high in conscientiousness may set more ambitious and structured career goals (Jung and Yoo, 2022). Personality traits significantly influence choice goals, shaping how individuals set and pursue their objectives. The Big Five personality traits—openness, conscientiousness, extraversion, agreeableness, and neuroticism—are particularly influential in this regard. Research supports these connections between personality traits and career goals.

Research indicates that personality traits influence not only the types of careers students consider but also their confidence in navigating challenges associated with their choices (McCrae and Costa Jr, 1997).

1.3.2 Career Decision-Making Self-Efficacy

CDMSE is a specific application of self-efficacy. It concerns a person's confidence in their capacity to make career-related decisions, including educational and occupational planning (Pignault et al., 2023). According to research, more successful career decision-making procedures and results are linked to higher levels of CDMSE (Lent et al., 2017).

Albert Bandura first proposed the psychological idea of self-efficacy in 1977. It describes a person's confidence in their capacity to carry out a certain action or task (Bandura, 1977). In essential, it is the assurance that one can affect circumstances and exert control over one's surroundings (*Self-Efficacy: Bandura's Theory Of Motivation In Psychology*, n.d.). Bandura (1997) further elaborates that self-efficacy is not a

general trait but a situational set of beliefs that vary across different activities and contexts(*Self-Efficacy*, n.d.). Four main sources—mastery experiences, vicarious experiences, social persuasion, and emotional states—are used to construct this belief system (Bandura, 1977).

In a similar vein, CDMSE specifically refers to a person's confidence in their capacity to make wise career choices. This concept encompasses various career-related tasks, like investigating potential career paths, setting career goals, and making informed career choices(Jung and Yoo, 2022). High levels of CDMSE are connected to proactive career behaviors, reduced career decision-making difficulties, and greater career satisfaction(Gallo and Roberts, 2019).For instance, a study by Anne Pignault and colleagues found that self-efficacy significantly influences career decision-making difficulties, with higher self-efficacy leading to fewer difficulties (Pignault et al., 2023). Robert W. Lent and colleagues conducted a second study in which they examined the social cognitive model of career self-management and emphasized the significance of self-efficacy in job exploration as well as decision-making (Lent et al., 2017).

This self-efficacy is crucial in translating personality traits into proactive career behaviors.

- i. **Goal Setting:** Students with high CDMSE are more confident in defining clear, realistic, and actionable career goals(Lent et al., 1994).
- ii. **Exploration and Problem-Solving:** CDMSE enables students to gather relevant occupational information and tackle career-related challenges (Betz and Hackett, 1986).
- iii. **Resilience:** High CDMSE equips students with the confidence to persist in their career pursuits despite setbacks or uncertainties (Betz and Hackett, 1986).

CDMSE is influenced by factors such as past successes, encouragement from mentors and peers, and access to career resources (Lent et al., 2002). Enhancing CDMSE can mitigate career decision-making problems as well as improve overall career satisfaction among students (Betz and Hackett, 1986).

1.3.3 Outcome Expectations

Expectations about the results of specific actions are known as outcome expectations. Expectations about the results of specific actions are sometimes referred to as outcome expectations (Lent and Brown, 2006; Isik, 2013). These expectations influence the choices individuals make, their efforts, and their persistence in various activities (Korkmaz and Yam, 2023). Positive outcome expectations can motivate individuals to set and pursue specific career goals, while negative expectations might deter them (Lent et al., 2017). Positive outcome expectations encourage students to set ambitious career goals and take proactive steps, while negative expectations can deter them from pursuing certain paths (Bandura, 2001a). Understanding outcome expectations provides insights into how students prioritize career options based on perceived rewards and risks.

The terms “outcome expectations” and “vocational outcome expectations” are often used interchangeably in career psychology, particularly within the framework of SCCT (Social Cognitive Career Theory). Both terms allude to a person's convictions about the likely results of their actions, but “vocational outcome expectations” specifically pertains to career-related actions and their anticipated outcomes.

- i. **Instrumental Outcomes:** These include financial rewards, job security, and benefits associated with specific career paths (Bandura, 1986).
- ii. **Expressive Outcomes:** These pertain to personal fulfillment, job satisfaction, and work-life balance, which motivate students to pursue careers aligned with their passions (Fouad et al., 2006).
- iii. **Social Outcomes:** Respect, societal approval, and familial support are key considerations influencing students' career decisions (Lent et al., 1994).

Vocational outcome expectations (VOE) are a subset of outcome expectations that focus specifically on career-related behaviors. They speak to a person's convictions regarding the results of their career choices, such as achieving a desired lifestyle, income, or job satisfaction (Baglama and Uzunboylu, 2017). This concept is crucial in understanding how individuals make career decisions and stay motivated to pursue their career goals (Aslan and Koçak, 2023).

Research in SCCT has shown that vocational outcome expectations are a critical factor in career decision-making processes. For example, individuals are more likely

to pursue careers they believe will lead to positive outcomes, such as financial stability and personal fulfillment(Lent and Brown, 2019).This alignment between general outcome expectations and vocational outcome expectations underscores their conceptual similarity.

These three factors do not function in isolation but interact dynamically to shape career choice goals:

1. **Personality and CDMSE:** For instance, conscientious students are more likely to exhibit high CDMSE, as their discipline and organization boost confidence in navigating career decisions. Conversely, neuroticism may lower CDMSE, leading to greater indecision (Judge et al., 2001).
2. **CDMSE and Outcome Expectations:** Students with high CDMSE are more likely to anticipate positive outcomes, which in turn motivates them to explore diverse career opportunities (Lent et al., 1994).
3. **Personality and Outcome Expectations:** Personality traits, such as openness, influence expectations of rewarding and fulfilling careers, while neuroticism may skew expectations toward potential challenges and risks (Lent et al., 2002).

Examining these interconnections, this study seeks to understand how personality traits influence career choice goals through the mediating roles of CDMSE and outcome expectations, providing actionable insights for educators and career counselors.

1.4 Statement of the Problem

Adolescence is a critical period for career exploration, as decisions made during this phase significantly shape future educational and occupational trajectories. Senior secondary school students often face challenges in setting and pursuing their Choice Goals, which are impacted by a complex interaction of environmental, social, and personal factors (Savickas, 2013). The decision-making process with respect to career choices among secondary school students is a basic area of concern, given the effect these decisions have on their future educational and occupational trajectories.

Research has extensively highlighted the role of personality traits in influencing career choices, with constructs like CDMSE and OE(Outcome Expectations) serving

as mediators (Lent et al., 1994; Bandura, 1997). However, limited studies have examined the interplay of these variables within the unique socio-cultural and educational context of India.

In the Indian setting, career decisions are significantly influenced by external factors such as societal norms, familial expectations, and systemic educational pressures, yet their interaction with personal and psychological factors remains underexplored (Agarwala, 2008). Additionally, existing research often emphasizes urban or privileged populations, creating a significant gap in understanding how students from underrepresented or resource-limited regions, such as Tripura - one of the economically and socially underprivileged states in the North-Eastern region of India - navigate these challenges.

Darlong (2024) reported that in the state of Tripura, youth comprise the largest chunk of the population and represent an untapped source of human resource directly impacting the economic growth prospects of the state, provided, an inclusive growth model assuring employment opportunities of these cohort subject be offered. The government sector is the only available organized sector of employment in the state. There is no industry in the state apart from the tea industry and brickfields, which curtails the entry of fairly educated youths into these sectors of work which are blue collared in nature. Rapid growth of population, advances in education driven by information and communication technology and poor quality of education in the state further hampers the employment or career related opportunities in the state. In recent years, improvements in sectors like horticulture, animal husbandry, irrigation facilities and agricultural techniques do indicate towards a brighter prospects of work in future. However, the intake of youth in these sectors is also conditioned by the offering of appropriate training in marketable skills among them.

The present study was primarily conducted in the north eastern state of Tripura which has a distinct geography, economy and culture, different from the way of life in the main land India, which further excruciates the discussed problem and warrants an immediate investigative attention on it. By investigating the mediating functions of CDMSE and OE in the association among personality traits as well as Choice Goals among Indian senior secondary school students, this study seeks to close these gaps. Focusing on this culturally distinct context, the goal of the study is to offer practical

insights into the psychological processes that underlie choosing a career, contributing to both theory and practice.

1.4.1 Challenges in Career Decision-Making among Senior Secondary School

Students

Senior secondary school students face unique challenges in making career decisions due to their developmental stage, external influences, and limited exposure to career options. This period of adolescence is marked by identity formation, exploration of self-interests, and increased social and familial expectations, all of which contribute to the complexities of career decision-making. Below are the key challenges specific to this group:

- i. **Cognitive and Developmental Constraints:** During adolescence, students are still developing critical cognitive skills, such as abstract thinking, long-term planning, and decision-making abilities. This immaturity in cognitive development can lead to difficulty in assessing career options, weighing future consequences, and making informed choices (Peterson et al., 1991). Additionally, students may struggle to align their academic performance, interests, and career aspirations due to their limited self-awareness.
- ii. **Lack of Self-Awareness and Career Knowledge:** Many students lack a comprehensive understanding of their strengths, weaknesses, and interests, which are critical for making career decisions. Moreover, their exposure to potential career paths is often limited to familiar or traditional options, such as those discussed within their immediate social circles or presented by media, leading to a narrow perspective on available opportunities (Gati et al., 1996).
- iii. **Emotional and Psychological Barriers:** Career decision-making is often accompanied by emotional challenges, such as anxiety, fear of failure, and decision-making indecision. The pressure to make the "right" choice and the uncertainty about future outcomes can create significant stress, especially for students with low CDMSE (Taylor and Betz, 1983). Furthermore, students with elevated levels of neuroticism may experience heightened unstable emotions, further complicating their decision-making process (Judge et al., 2001).
- iv. **Influence of External Factors:** Students' profession choices are greatly influenced by external factors such as friends, family, and social norms:

- a. **Family Expectations:** In many cultural contexts, families exert strong influence over students' career choices, often prioritizing financial stability or societal prestige over the students' interests and aptitudes (Eccles, 1994).
 - b. **Peer Influence:** Adolescents are highly susceptible to peer opinions, which can lead them to pursue careers that align with group norms rather than their aspirations (Helwig, 2004).
 - ii. **Societal Stereotypes:** Gender stereotypes and cultural norms often restrict students from exploring non-traditional career paths, limiting their options (Lent et al., 2000).
 - iii. **Limited Access to Career Guidance:** Many schools lack robust career counseling programs that provide personalized guidance and exposure to diverse career opportunities. Students from low socioeconomic backgrounds are particularly disadvantaged, as they often lack the resources and networks needed to explore and pursue their desired careers (Blustein et al., 1997).
 - iv. **Misalignment between Personality and Career Choices:** Students may struggle to identify career paths that align with their personality traits. For instance:
- 5. Extroverted students may be drawn to careers involving social interactions but may lack guidance on how to develop necessary skills (Barrick and Mount, 1991).
 - Conscientious students may feel overwhelmed by the need for structured planning in high-demand fields.
 - Neurotic individuals may avoid challenging but rewarding careers due to their heightened fear of failure (McCrae and Costa Jr, 1997).
 - i. **Unrealistic Outcome Expectations:** Students often hold unrealistic or uninformed expectations about career outcomes, such as potential earnings, job satisfaction, or work-life balance. These misconceptions can lead to poor career choices or dissatisfaction later in life (Lent and Brown, 2006).
 - ii. **CDMSE Gaps:** Students who have low CDMSE are less confident in their capacity to choose a career. Students with low CDMSE are more likely to

experience decision-making difficulties, procrastinate in exploring career options, or rely heavily on others for guidance, which can limit their independence and self-determination in career planning (Betz et al., 1996).

The challenges outlined above highlight the need for targeted interventions to support senior secondary school students in their career decision-making journey. Enhancing CDMSE, providing access to comprehensive career guidance programs, and encouraging self-exploration can mitigate many of these difficulties and empower students to make informed and satisfying career choices.

1.5 Need of the Study

This research was highly relevant for advancing the understanding of career decision-making among secondary school students. Exploring the interplay between personality traits, CDMSE, career choice goals and outcome expectations, could provide valuable insights for educators, counselors, and policymakers. The findings of this study were expected to not only address academic and psychological aspects of career development but also contribute to creating a more robust and equitable framework for career guidance and counseling. In particular, the specific rationales for conducting this study are mentioned below:

1.5.1 Enhancing Understanding of Career Decision-Making Dynamics

The study delved into how personality traits influence the formation of career Choice Goals. By examining the mediating roles of CDMSE and outcome expectations, this research tried to provide a nuanced understanding of the psychological processes underlying career decisions.

1.5.2 Addressing Career Decision-Making Challenges

Adolescents often face difficulties in career decision-making due to limited life experience, cognitive immaturity, and external pressures. This study identified factors such as low self-efficacy and unrealistic outcome expectations, enabling the design of targeted interventions to help students navigate these challenges more effectively (Gati et al., 1996).

1.5.3 Guiding Tailored Career Counseling Interventions

In identifying how specific personality traits influence CDMSE and outcome expectations, this study offered insights for personalized career counseling. For instance, students with high conscientiousness may benefit from structured goal-setting workshops, while those with low CDMSE might require confidence-building activities.

1.5.4 Promoting Academic and Career Success

Career Choice Goals are closely linked to academic motivation and success. Students with clear career aspirations tend to perform better academically and exhibit higher levels of persistence. This study emphasized the importance of fostering realistic and achievable career goals to enhance both academic performance and career satisfaction (Lent et al., 1994).

1.5.5. Contributing to Educational and Vocational Policy

This research underscored the need for integrating career education into the school curriculum. Policymakers can use the findings to allocate resources for career counseling services, mentorship programs, and career exploration opportunities that cater to diverse student needs.

1.5.6 Advancing Research in Career Psychology

The study integrated the SCCT and FFM frameworks to offer an extensive comprehension of the interconnections among personality traits, CDMSE, and outcome expectations. This integration offers a robust model for explaining how these factors shape career Choice Goals and contribute to the broader literature on career development.

1.6 Significance of the Study

The study was highly relevant for addressing critical aspects of adolescent career development. Secondary education represents a pivotal phase where students make decisions about their career paths, decisions that carry long-term implications for their professional success and personal fulfillment. This research was particularly significant for understanding the factors influencing these decisions and providing actionable insights to support students in aligning their aspirations with achievable goals.

1.6.1 Theoretical Contributions

This study contributed to the theoretical advancement of SCCT by exploring how CDMSE, as well as OE, mediated the connection among career-related Choice Goals and personality factors. By focusing on secondary school students, the research shed light on adolescent career development, an area often overlooked in existing literature (Lent et al., 1994; Savickas, 2013).

1.6.2 Practical Applications

The findings from this study were expected to inform educators, school counselors, and policymakers in developing targeted interventions aimed at enhancing self-efficacy as well as outcome expectations. These interventions could support students in making informed, confident career decisions (Bandura, 1997). Additionally, insights into how personality traits influence career goals can guide the development of personalized career counseling strategies that align with students' strengths and aspirations (McCrae and Costa Jr., 1997).

1.7 Key Areas of Significance

1. **Exploring the Role of Personality:** The study investigated how personality traits influence career goals, providing insights into the relationship among personality as well as career decision-making. This understanding can help individuals make more informed and aligned career choices.
2. **Examining Mediating Factors:** By focusing on the mediating roles of CDMSE and outcome expectations, the study highlighted critical psychological mechanisms that influence the relationship between personality traits and career goals.
3. **Targeting Senior Secondary School Students:** Secondary students are at a critical stage of career development. This research explored the factors affecting their decision-making, enabling educators and counselors to better support their transition from school to work or higher education.
4. **Practical Implications:** The findings of the study were expected to have practical applications for career counseling programs. By identifying how personality and mediating factors impact career decisions, interventions

can be designed to augment self-efficacy and assist students in establishing realistic and fulfilling career objectives.

5. **Theoretical Contribution:** The study advanced the understanding of career development by integrating SCCT and the Five-Factor Model (FFM), providing a comprehensive framework for explaining how personality, CDMSE, and outcome expectations shape Choice Goals.

1.7.1 Significance of Career Choice Goals in the Career Development Process

Career choice goals are a critical component of career development, particularly for senior secondary school students who are at a formative stage of their educational and professional journeys. The significance of career choice goals is highlighted below:

- iv. **Guidance and Direction:** Career choice goals provide a sense of direction, helping students focus their efforts and resources on achieving specific professional objectives. By setting clear goals, students can better prioritize academic subjects, extracurricular activities, and skill-building opportunities that align with their aspirations (Betz and Hackett, 1986).
- v. **Motivation and Persistence:** Well-defined career goals serve as a source of motivation, driving individuals to work harder and remain committed to their education and personal development. Research shows that students with clear career goals demonstrate higher levels of persistence, even in the face of challenges (Gati et al., 1996).
- vi. **Informed Decision-Making:** Career choice goals help students make more informed decisions by aligning their aspirations with their strengths, values, and interests. This alignment reduces the likelihood of career indecision or dissatisfaction and increases the chances of achieving long-term career success (Peterson et al., 1991).
- vii. **Development of Self-Efficacy:** Setting as well as working toward career goals can enhance an individual's CDMSE. As students take proactive steps toward their aspirations, they gain confidence in their ability to navigate complex career choices and overcome obstacles (Taylor and Betz, 1983).

- viii. **Preparation for Future Challenges:** Career choice goals prepare students for the dynamic and competitive nature of the workforce by encouraging them to develop relevant skills, adapt to changes, and seize emerging opportunities. Students who set clear goals are better equipped to handle transitions, such as entering higher education or the job market (Lent and Brown, 2006b).
- ix. **Personal Fulfillment and Satisfaction:** Achieving career goals that align with one's interests as well as values contributes to higher levels of job satisfaction, personal fulfillment and overall well-being. Students who pursue careers aligned with their passions are more inclined to achieve sustained success and happiness (Fouad et al., 2006).
- x. **Impact on Society and Economy:** At a macro level, students with well-defined career goals contribute to a more productive and skilled workforce. By aligning their goals with market demands, they enhance economic growth and societal development (Sharf, 2013).

By fostering clarity, motivation, and informed decision-making, these goals not only support individual success but also contribute to broader societal benefits. Understanding and encouraging the development of career choice objectives through frameworks like personality, self-efficacy, as well as outcome expectations is essential for empowering students to achieve their full potential.

1.8 Key Variables of the Study

According to Aries (2012), the variable of a research study is its object of analysis, and refers to a quantity or characteristic subject to changes. In this study, the variables are classified into three main categories:

- i. **Dependent Variables:** These include Choice Goals or Career Choice or Career Choice Goals.
- ii. **Mediating Variables:** The mediating variables consist of Career Decision-Making Self-Efficacy (CDMSE) and Outcome Expectations or Vocational Outcome Expectations (VOE).
- iii. **Independent Variables:** The independent variables are represented by Personality traits.

1.9 Objectives of the Study

The proposed study seeks to investigate the interconnections between personality traits, CDMSE, outcome expectations, and Choice Goals among senior secondary school students. The specific objectives are:

- i. To study the relationship between Personality and Choice Goals in senior secondary school students
- ii. To study the relationship between Personality and Career Decision Making Self-Efficacy in senior secondary school students
- iii. To study the relationship between Career Decision Making Self-Efficacy and Choice Goals in senior secondary school students
- iv. To study the relationship between Personality and Outcome Expectations in secondary senior school students
- v. To study the relationship between Outcome Expectations and Choice Goals in senior secondary school students
- vi. To study the predictive role of Personality on Choice Goals in senior secondary school students
- vii. To study the predictive role of Personality on Career Decision Making Self-Efficacy in senior secondary school students
- viii. To study the predictive role of Career Decision Making Self-Efficacy on Choice Goals in senior secondary school students
- ix. To study the predictive role of Personality on Outcome Expectations in senior secondary school students
- x. To study the predictive role of Outcome Expectations on Choice Goals in senior secondary school students
- xi. To study the mediating roles Career Decision Making Self-Efficacy and Outcome Expectations in senior secondary school student.

1.10 Research Hypotheses

- i. **H₀:** There is no significant relationship between Personality and Choice Goals in senior secondary school students

- ii. **H₀:** There is no significant relationship between Personality and Career Decision Making Self-Efficacy in senior secondary school students
- iii. **H₀:** There is no significant relationship between Career Decision Making Self-Efficacy and Choice Goals in senior secondary school students
- iv. **H₀:** There is no significant relationship between Personality and Outcome Expectations in senior secondary school students
- v. **H₀:** There is no significant relationship between Outcome Expectations and Choice Goals in senior secondary school students
- vi. **H₀:** There is no significant predictive role of Personality on Choice Goals in senior secondary school students
- vii. **H₀:** There is no significant predictive role of Personality on Career Decision Making Self-Efficacy in senior secondary school students
- viii. **H₀:** There is no significant predictive role of Career Decision Making Self-Efficacy on Choice Goals in senior secondary school students
- ix. **H₀:** There is no significant predictive role of Personality on Outcome Expectations in senior secondary school students
- x. **H₀:** There is no significant predictive role of Outcome Expectations on Choice Goals in senior secondary school students
- xi. **H₀:** There is no significant mediating role of Career Decision Making Self-Efficacy and Outcome Expectations on the predictive relationship of Personality on Choice Goals in senior secondary school student.

1.11 Operational Definitions

In the context of thesis writing and research, an operational definition plays a crucial role. Operational definitions provide clarity, consistency, and precision in research, allowing for meaningful and standardized data collection. According to Aries Gonzales (2021), variables of a study can be understood in two ways, namely, through their conceptual definition, where they are defined in words or phrases in a glossary, or through their operational definition, which is the specification of how the variable would be measured.

The operationalization of variables is a quantitative aspect conducted in a systematic manner, from general to specific, consisting of breaking the variable of study into its component dimensions or factors, and dividing the dimensions into their component parts, which are their items. Depending upon the context of the study, a variable's dimensions and their respective items change.

According to Moran and Alvarado (2010), operationalization of a variable also consists of breaking it down into its components (dimensions or factors) which further aid in its measurement. It also involves the tasks conducted by the investigator for gathering the population related data (Hernandez-Sampieri and Mendoza, 2018) and allotting categories or figuring the data in its study sample characteristics (Cea, 2012).

The operationalization of the four variables of the current study, based on American Psychological Association (APA) 7th edition standards, as mentioned in Aries Gonzales (2021), are mentioned below:

1.11.1 Personality

It is defined in the present study as a set of enduring dispositions or traits that systematically influence individuals' thoughts, emotions, and behaviours across different situations, measured using the Big Five Inventory consisting of 44 items developed by John and Srivastava (1999), and five dimensions, namely, Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism, with the responses recorded in five point Likert scale ranging from 1 (disagree a lot) to 5 (agree a lot).

1.11.2 Career Decision Making Self-Efficacy

It is defined as a person's confidence in their capacity to effectively execute the tasks required for making informed career selections, measured using the Career Decision Making Self-Efficacy scale developed by Javed and Khan (2018) consisting of 17 items and four dimensions namely, absolute belief in career decision, problem solving conviction, career decision confidence and career decision prophecy, with the responses recorded in five point Likert scale ranging from 1= strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree.

1.11.3 Vocational Outcomes Expectations

It is defined as the beliefs of an individual regarding the likelihood of positive outcomes, such as obtaining satisfying and successful employment that utilizes their

skills, occurring in the future, measured using the revised unidimensional scale of Vocational Outcome Expectation of Metheny and McWhirter (2013) consisting of 12 items, with the responses recorded in four point Likert scale ranging from **1**= strongly disagree, **2** = Somewhat disagree, **3** = Somewhat agree, and **4** = strongly agree.

1.11.4 Choice Goals

It is defined as the specific career outcomes or attributes that individuals strive to achieve, encompassing both intrinsic and extrinsic dimensions, measured using the Career Choice Goals Inventory developed by Seibert et al., 2013b, consisting of 10 items and two dimensions, namely, Intrinsic and extrinsic career goals, with the responses recorded in five point Likert scale ranging from **1**= strongly disagree, **2** = disagree, **3** = neutral, **4** = agree, and **5** = strongly agree.

1.12 Delimitations of the Study

- i. The study focused on Central Board of Secondary Education (CBSE) affiliated school students within Tripura state of India.
- ii. Secondary schools studying in 11th and 12th grades only, from all the eight districts of Tripura state, India, were considered as the study sample subjects in this research.
- iii. The medium of instruction of senior secondary school students involved in the study was English only.

CHAPTER-II

REVIEW OF LITERATURE

2.1 Introduction

A thorough overview as well as evaluation of body of research on a particular subject is called a literature review. It serves multiple purposes, such as consolidating current knowledge, identifying gaps in the literature, and presenting key findings that contribute to the research field. The objectives of a literature review include familiarizing the researcher with up-to-date studies, analyzing the relationships between different works, identifying areas where knowledge is lacking, and relating these findings to the current research project (Alex, 2024).

The specific areas addressed in this chapter are determined by investigation's objectives as well as question. These areas were chosen to provide relevant background information on the issue under investigation. Finding research gaps and creating theoretical foundation to assist current investigation are two of literature review's main goals. This allows future researchers to build on existing knowledge without duplicating previous work, contributing to the advancement of the field (Alex, 2024).

This chapter presents concise summaries of previous relevant studies that relate to the research problem, providing a foundation for the current investigation. Sources of the reviewed studies comprised of electronic data bases like PubMed, Shodhganga, and Scopus-indexed journals databases.

2.2 A Critical Review of Research on Personality Traits

Rogers et al. (2008) explored the intersection of personality as well as career planning in perspective of SCCT (social cognitive career theory), examining 414 Australian high school students. According to the study, personality qualities including diligence and transparency to new experiences have a beneficial impact on career planning along with exploration, while neuroticism hindered these behaviors. Outcome expectations and self-efficacy had been key mediators, adolescents who had strong self-efficacy navigating career uncertainties more effectively. The investigation emphasizes significance of considering personality within developing interventions to

enhance career readiness, supporting SCCT's emphasis on self-efficacy, personality, as well as outcome expectations in career planning.

Jensen (2015) explored how learning processes, academic success, and the Big Five personality qualities are related, finding that conscientiousness is a strong predictor of academic success due to its association with diligence and persistence. Openness to experience also positively influences learning by fostering curiosity and adaptability. In contrast, neuroticism negatively affects academic performance by increasing anxiety and reducing focus. The study highlights the interactive effect of personality on learning strategies and motivation, suggesting that aligning educational approaches with students' personality profiles can optimize learning outcomes. The results highlight how crucial it is to take psychological traits into account in order to improve teaching methods. Studies by Rogers et al. (2008) and Jensen (2015) emphasize how traits like neuroticism can hinder career exploration and academic performance, while the influence of personality on decision-making occurs by self-efficacy.

In the paper by Kumaranayake (2017), a review of literature on personality traits was conducted to provide an overview of the field and assess the validity of various dimensions within it. Spanning nearly a century of research, the study highlighted significant advancements in the understanding of personality traits, despite not being entirely contemporary. The review aimed to summarize key developments, address existing gaps, and engage with ongoing debates within the field. The methodology involved online searches for sources published in English between 1930 and 2017, focusing on 64 review articles. Key themes explored in the study included basic personality dimensions, both broad and narrow traits, causal evidence for traits, the cognitive-affective system, and methods for studying individual differences. The paper also examined the consistency of behavior across the lifespan and the influence of cultural factors on personality traits. This review offers valuable insights into the progression of personality research and suggests areas for future exploration.

Semeijn et al. (2018) investigated the connection between performance indicators as well as Big Five personality qualities. The study aimed to derive personality types based on these traits and assess their associations with both subjective (like job happiness) and objective (like salary and promotions) professional achievement. A two-type solution was identified: resilient and distressed profiles. The findings revealed that

while Big Five traits were significant predictors of objective career success, personality types also played a key role in explaining subjective career success. These results highlight significance of taking into account both character attributes and types in career development and counselling.

Meyer et al. (2019) examined linking academic success and personality qualities, controlling for intelligence, in a sample of 3,637 upper secondary school students (age $M = 19.92$ years) in Germany. The study focused on Mathematics and English as a foreign language, using grades, test scores, and final exams as achievement indicators. The findings indicated that personality traits, particularly conscientiousness, had predictive power beyond cognitive ability in academic success. Conscientiousness predicted both grades and final exams, while openness influenced math and English test scores, highlighting domain-specific effects across different measures of academic performance. Additional studies like Semeijn et al., 2018 and Meyer et al., 2019 underline importance of personality in shaping career success and academic performance, suggesting that understanding personality differences can lead to more personalized interventions.

Dizon (2022) studied association between personality traits, perceived self-efficacy, and job preference determinants using 3,186 grade 11 and 12 students from public and private schools in province of Iloilo in correlative-comparative study. We also looked at demographic factors such as parental education, income, residence, and gender. For grade 11 students, personality traits were neutral, except for a high score in agreeableness. Grade 12 students showed similar traits. Significant degree of self-efficacy had present in both groups, as well as strong inclination toward career preference factors. A significant relationship was found among personality traits, self-efficacy, as well as career preferences, but neither self-efficacy nor career preferences of two grade levels differed significantly.

Wang et al. (2023) investigated impact of character qualities' academic success and evaluated mediated impacts of self-efficacy as well as major identity using business major student data under traditional paradigm of chain mediating effects. The findings indicated that extraversion as well as conscientiousness have positive total impacts of pupils' educational achievements, and these are achieved mostly through self-efficacy via major identity as chains mediators which are based mainly on behavioural efficacy

dimension while realizing this openness also has an effect on academic accomplishment by means of self-efficacy mediator effect chain mediated major identity to but its power is feeble too low; thus not significant for any overall effects agreeableness personality trait may have negative overall effect with direct reflection being made towards agreement ability or performance among others according this discovery academic achievement cannot be seen as a true measure for team work skills among learners.

Meyer et al. (2023) carried out a meta-analysis to investigate the connection between student personality traits as well as academic success across various subject areas and achievement measures. Analyzing data from 78 studies with 1,491 effect sizes (sample size = 500,218), they found that personality traits exhibited different effects depending on the subject area (e.g., STEM vs. language arts) as well as kind of achievement metric (like grades vs. test scores). Conscientiousness emerged as the most consistent predictor of academic achievement, while extraversion was notably predictive in non-classroom test environments. Openness, however, only showed a relationship with tests taken during school, where it was negatively associated with grades and positively linked to broader task-based assessments. These outcomes highlight both domain as well as measurement specificity when evaluating personality's influence on academic outcomes. The finding highlights that different traits may influence performance in various fields, suggesting that achievement measures should be carefully aligned with the research focus.

Owusu-Addo (2023) highlighted vocational determinants among university students' personalities at three universities located within a region in Ghana. The study adopted descriptive research design using quantitative approach. Final year undergraduate student who were almost through with their academic programme were selected by means of a multistage sampling technique on total sample size for this study was approximately three hundred fifty-four (354). Research instrument's validation involved use of expert judgment while the reliability component employed Cronbach's alpha test. It emerged that investigative and conventional careers were most popular amongst others whereas conscientiousness, openness to experience and extraversion were the most dominant personality traits in the sample thus suggesting that student lacked entrepreneurial qualities that could lead them in starting their own

enterprise after completing their studies. The study recommended that students be given education on what they should consider when choosing careers and let them know about different personalities.

Wright (2025) studied the relationship of the five personality types with the job performance of the individuals working in completely remote place of work. The study was conducted on federal government employees and resulted in a strong correlation of job performance with two specific personality types of conscientiousness and extroversion. When the employees were provided a change to be in outdoor locations, it resulted in a context specific moderating effect.

Summary: This literature review investigated how personality factors affect academic achievement as well as career growth. Research highlights that traits like conscientiousness and openness are strong predictors of both career planning and academic achievement, with conscientiousness consistently linked to better outcomes across various domains. The findings suggest that personality traits, including those less typically associated with career success, also influence subjective career satisfaction and preferences.

2.3 Reviews on Studies Examining the Career Decision-Making and Self-Efficacy/ Career Decision Making Self-Efficacy

The goal of investigation by Betz and Luzzo (1996) was to create and validate a trustworthy tool for evaluating people's self-efficacy about activities involving career decision-making. In order to test attitudes about one's ability to carry out career-related tasks, such as self-evaluation, goal selection, occupational information, planning, along problem-solving, these researchers set out to develop a tool. This research specifically referenced the works of Crites's career maturity theory (1978) and Bandura's self-efficacy theory (1977). People's perceptions of capacity to perform career-related tasks efficiently are evaluated by CDMSE. Strong correlations between career indecision, career self-efficacy, as well as other markers of difficulties in making career decisions, were found in research. Additionally, CDMSE was useful in developing and assessing counselling and educational programs meant to improve self-efficacy beliefs in relation to career decision-making.

Family being main social support system contributes much to the adolescent's career advancement and process of decisions making (Whiston as well as Keller, 2004). Sidiropoulou-Dimakakou and Argyropoulou (2006) investigated association between group of college students' decision-making approaches and their self-efficacy in making career decisions. A total of 292 students were sampled, including 150 women and 142 men at University of Athens. The findings indicated a strong relationship between self-efficacy in making career decisions as well as decision-making methods. Students with faith in their capacity to perform desired tasks that are necessary for sensible decision-making processes such as accurate self-evaluation, goal selection, occupational information, problem solving, and future planning tend to make decisions in a rational manner. However, students who were less certain about their proficiency in completing these activities take help from others while taking a decision. CDMSE is the significant concept for comprehending individual's career behaviour (Betz, 2007).

Choi et al. (2012) investigated connections between important variables and CDSE. For a deeper comprehension of CDSE's function within framework of SCCT, authors sought to reconcile conflicting findings from earlier empirical investigations. Authors conducted a search and chose nine pertinent factors (race, gender, self-esteem, age, career indecision, occupational identity, peer support, career hurdles, as well as vocational outcome expectation) for this research. According to SCCT model, CDSE had a strong correlation with self-esteem, peer support, vocational outcome expectation, professional identity, and career hesitation variables, but other variables (such as career barriers, race, and gender) had no significant effect on CDSE.

Jiang (2014) investigated effects of emotional intelligence on self-confidence in career decisions across gender and country among 149 Chinese students and 218 South Korean students in the East Asian context. The study found showed when making career decisions, self-efficacy was positively correlated with all four dimensions of emotional intelligence (EI). Gender did not have a major part in these relationships, though impact of EI on CDMSE was greater for students from China rather than South Korea. These findings suggest that emotional intelligence is essential to shaping career decisions, with cultural factors influencing its impact. The investigation highlights how crucial EI training is for improving self-efficacy in making career decisions, especially in multicultural environments.

In order to determine how connections among college students' career involvement, career decision self-efficacy, as well as career decision certainty were influenced by their levels of planned happenstance skills; Kim et al.(2014) conducted a study. A moderated mediation analysis was done using 217 Korean undergraduate students as participants. The study found out: Career involvement and career decision certainty were mediated by career decision self-efficacy; Also, it revealed that positive indirect effect on path from career engagement as mediation variable for career decision-making (career decision self-efficacy) becomes stronger with more proficiency in planned happenstance among college students. When individuals possess sufficient planned happenstance skills, they can uncover unexpected job opportunities. As a result, their career choices become clearer, especially when they actively participate in decision-making during their university years. Having these skills allows them to stumble upon unanticipated job prospects while in college.

Fan (2016) examined impact of thinking patterns on 926 college students' CDMSE. Based on Sternberg's theory of thinking styles, study discovered a favorable correlation between greater levels of CDMSE as well as creativity-generating (Type I) thinking patterns, suggesting that students who approach problems creatively feel more confident in career decision-making. In contrast, norm-conforming (Type II) thinking styles showed no significant relationship with CDMSE, implying lower self-efficacy for students who follow conventional methods. These findings contribute to debate on value of intellectual styles as well as emphasize significance of fostering creativity within higher education in enhancing students' career maturity along with confidence in navigating their professional paths.

Amani (2016) employed cross-sectional survey design for assessing CDMSE among undergraduate students of university in Tanzania keeping in mind elements like gender disparity, age difference, academic year dissimilarity etc., that affect its level among them with a given aim being focused on this research work. The study included business (n=102) and engineering (n=102) students randomly selected from two public universities namely, the University of Dares Salaam and the University of Dodoma. In terms of the parameters used to measure self-efficacy, most students demonstrated significant self-efficacy in making career decisions encompassing establishing objectives, obtaining occupational data, addressing issues, organizing,

and assessing oneself. This study also discovered notable variations in self-efficacy between genders and variation between freshman and seniors with no age effect.

To forecast CDMSE among 587 secondary vocational students in China, Xing (2016) studied function of certain family variables. The family “structural” variables were indicators of socio-economic status of family members while family “process-oriented” variables focused on parental behaviours in relation to career. According to findings, general psychosocial support by parents had predictive value on statistically significant scale in relation to CDMSE which accounted for 38.3 percent change among this framework for secondary vocational students in China.

Ogutu and colleagues (2017) studied self-efficacy's influence on profession choices among 364 fourth-form secondary school students in Kenya's Busia County. Many students prioritize self-actualization over marketable skills, hindering informed career choices. The study found strong inverse correlation between self-efficacy as well as career decisions ($r_s = -0.236$, $p = 0.001$), with multinomial logistic regression models explaining 30.5% to 35.6% of variations within career decision-making. Despite statistical significance of regression model ($X^2 = 105.984$, $p = 0.001$), unexplained factors remain. The study suggests that schools should offer career guidance based on students' skills and market needs.

Middleton (2017), explored the impact of family dynamics on career development through Bowen's family systems theory, emphasizing self-differentiation as a key factor. Individuals with low self-differentiation often prioritize family approval, potentially leading to career indecision and emotional instability, while those with high self-differentiation experience greater emotional stability. Studying 324 undergraduate psychology students, Middleton found gendered variations in how CDMSE and career aspirations mediate relationships between self-differentiation, career indecision, and vocational identity.

Both mediators had considerable impact on these associations for females, whereas CDMSE was more crucial for males with career aspirations playing limited role. The findings highlight need for gender-sensitive approaches in career counseling and further research into self-differentiation's role in career development.

Bolat and Odacı (2017) investigated the connection between final-year high school students' attachment styles and their self-efficacy in choosing professional decisions. Study involved 808 students in final year chosen randomly using random sampling method. The participants had to answer Personal Data form, CDMSE Scale measuring their own CDMSE, BEM Gender Role Inventory, as well as Relationship Scales Questionnaire. The findings indicated there was significant correlation between secure attachment styles with CDMSE. Researchers observed significant variation in this concept levels based on gender roles, particularly in terms of femininity and masculinity. This implies that individuals who have feminine or masculine roles are more likely to make better decisions about their profession than people who have indeterminate sex orientation.

Bao and Cui (2018) selected 2880 college students in China to examine general state of CDMSE among college students as well as connections between CDMSE along with mental health and personality. It was observed that college students scored slightly higher on CDMSE than medium level; their best score was for “information collection”, whereas their least score was for “problem solving.” Results of correlation study showed strong positive relationship between college students' CDMSE scores and their personality and mental health. Regression analysis showed that 20.1% of variables in CDMSE could be explained by seven variables such as somatisation, introversion or extroversion, psychotic, neuroticism, dissimulation, gender, as well as nationality.

Javed (2019) examined relationship between career exploration behavior (CEB), career-related parental support (CRPS), and CDMSE in accordance with SCCT. Conducted among junior high students, research highlights how CEB partially mediates the influence of CRPS on CDMSE, emphasizing instrumental as well as emotional assistance for shaping career self-efficacy. Results highlight significance of fostering exploration behaviors in students through targeted interventions, while also acknowledging cultural context's impact on career development. Study provides valuable insights for educators and policymakers, though future research could broaden its scope to diverse populations and longitudinal effects.

In their 2019 study, Chasanah and Salim explored whether CEB mediates the relationship between CRPS as well as CDMSE. Following changes from Curriculum

2013, Indonesian junior high students must make earlier decisions about their educational paths, highlighting significance of effectiveness as well as career planning. The study involved 140 eighth- and ninth-graders during the 2018/19 academic year. Regression analysis revealed that CRPS has important influence on CDSE, where CEB acting as a partial mediator ($b=0.44$, $t(137)=6.31$, $p<0.001$; coefficient= 0.22, $SE=3.91\%$, $CI=0.14-0.29$). Instrumental assistance and verbal encouragement directly impacted CDSE, while emotional support indirectly influenced CDSE through CEB (coefficient = 0.09, $SE = 3.29\%$, $CI = 0.03-0.16$). These findings align with social cognitive career theory (SCCT), with Indonesia's collectivist culture possibly shaping adolescents' career decision-making.

Berger et al. (2019) investigated effect of immediate feedback on teenagers' self-efficacy in career decisions and ambition alignment. The participants were 211 students from Western Sydney. It was found that provision of automated feedback related to ambitions linked to careers and education improved the self-efficacy for career choice as well as inspirational alignment too (Berger et al., 2019). They not only have greater confidence in gathering job-related information but also feel more assured when setting their own goals. This increased self-efficacy was particularly evident in students' ability for making aware career decisions and pursues goals aligned with their values and aspirations. The study highlights the significance of timely, personalized feedback in boosting career decision-making and fostering a proactive approach toward goal-setting among adolescents.

The authors, Abidin et al. (2019), dwelt on how Malaysia's brilliant as well as gifted students decide on careers they will take up. CDMSES cale-Revised developed in 1996 is utilized by investigators to assess level of career decision making. 2800 brilliant as well as gifted students from several Malaysian boarding schools participated in investigation. Descriptive statistical analysis was employed in identifying phenomenon of career decision-making for responders, which was later analysed based on gender, parents' education level and family income. Therefore, it was concluded that disparities exist regarding CDMSE between gifted and talented students in contrast to their typical counterparts. Abidin et al. (2019) found differences in CDMSE between gifted and regular students in Malaysia.

Chuang et al., (2020) explored relationships between each dimension of CDMSE as well as dimensions of CDMP (Career Decision-Making Profile) with regard to vocational indecision among hospitality students. An online survey was conducted over two weeks in fall 2018 among an appropriate student sample enrolled in several courses at two significant hospitality programs situated at general hospitality management institutions in north-eastern US and south-western US respectively. In total, 273 valuable questionnaires were collected at response rate of 65%. As a result, CDMSE explained 27.9% variance while CDMP explained only 25.6% variance in Career Decision-Making Difficulties (CDD). Among significant predictors for CDD were goal selection, locus of control, process effort commitment, procrastination time, and last-minute decision speed. Chuang et al. (2020) identified CDMSE as a key factor in reducing vocational indecision among hospitality students.

Dostanić et al. (2021) examined how high school students' career decision self-efficacy, decision-making styles, along with career flexibility relate to one another. Researchers also aimed to ascertain whether correlations between these 3 characteristics are moderated by gender. 216 Serbian high school seniors in their final year answered questions about decision-making as well as career flexibility. Structural equation modelling results indicated that negative link between dependent style and CA and positive relationship between intuitive and rational styles were mediated by career decision self-efficacy. Only CA was directly impacted by rational style. Gender had an impact on one path, which had been a regression weight of self-efficacy on career adaptability. Self-efficacy did not significantly influence CA for male students. Akhsania et al. (2021) assessed CDMSE levels among junior high school students, while Sandra and Mularsih (2021) highlighted its role in vocational school graduates' decisions. Hamzah et al. (2021) found that CDMSE mediates how CA and EI are related. Haryati et al. (2021) emphasized the importance of career information services in boosting CDMSE, and Choi et al. (2012) identified key factors influencing CDMSE, like vocational identity, as well as self-esteem.

In Central Java Province, Akhsania et al. (2021) assessed level of CDMSE among junior high school pupils. Career understanding data were collected using a career test, comparative test, and qualitative method from 311 respondents who either had or did not have a clear idea of what they intended to do with their lives. Some branches of postgraduate studies have chosen to adopt this academic path for Master's students

concerning business administration amongst other areas of focus. Also, these organizations tend to obtain their employee pool for future management positions through promotions within their own divisions. In addition, CDSE-SF test identified some variations in how much meaning can be made by participants especially about careers when it comes to learning about how various jobs exist together with knowing what qualities employers want us look at. Such students claimed that they had gained some knowledge regarding careers while others lacked an understanding of self-efficacy.

Sandra and Mularsih (2021) researched vocational secondary schools' alumni's perception about self-efficacy in career decision-making in Jakarta city. Employing convenient sampling technique, 165 graduated students from vocational high schools across Jakarta aged 18-21 years old took part in this study whereby 118 were female while there were only 47 males. With an R^2 of 0.151 and p-value less than 0.05, outcomes indicated that self-efficacy significantly positively influences career choices of vocational high school graduates in Jakarta. The rest of decisions were influenced by other factors while self-efficacy part played a considerable role at 15%.

Hamzah et al. (2021) found potential function of CDSE as being mediator in link between Career Emotional Intelligence (CAEI/CAIA and emotional intelligence/self-esteem with regard to 22-24 y/o university students. These researchers discovered a noteworthy connection between CDSE and CA($r=.568$, $p=.001$), which resulted in an impact of CDSE, emotional intelligence/sentiments and self-esteem upon career adaptability. Research findings contribute to understanding how personal resources are linked to work adjustment via mediation of CDSE as well as highlight its relevance for effective performance at work and employability after graduation. The study helps develop Malaysian undergraduate research model thereby assist Human Resource Department (HRD) professionals/employers as well as future practitioners while facilitating student transition into workforce.

To explore how students' views about services that provide information on careers affect their self-confidence in making respective choices, Haryati et al.(2021) conducted study. One of the problems that prevent learners from making correct career decisions was lack of knowledge concerning appropriate education, job, or rank in relation to their capabilities. The researchers used 108 students from SMK

were chosen using the quota random selection method. Simple linear regression analysis had been applied in analysing data using SPSS 24 as an aid for this purpose. According to the findings, students' opinions on career information services were significantly correlated with their self-efficacy in making career decisions by 16 percent ($\beta=0.40$, $p<0.01$). Self-efficacy in making wise career decisions will be impacted by calibre of excellent career information services.

Lee et al. (2022), examined the relationships between CDMSE, CPB, as well as CDD among college students in South Korean. The study discovered a favourable correlation between CDMSE and CPB, indicating that students who were more comfortable making career decisions seemed more likely to engage in preparatory activities for their careers. Conversely, CDMSE was negatively associated with CDD, suggesting that higher self-efficacy reduces the difficulties students face in making career decisions. Research emphasized need for programs that foster students' ability to independently set vocational goals, actively seek job-related information, and participate in career preparation activities. Additionally, it highlighted importance of counselling programs to help students establish a strong self-concept and identity, which could improve their career decision-making abilities. These findings can inform the development of effective career guidance systems in universities

To et al. (2022) investigated effects of 3 categories of parental factors on youth's CDMSE: parenting behaviors, parent-child connections, as well as parental cognitions. 6 scientific databases PsycINFO, Social Services Abstracts, ERIC, Social Sciences Citation Index, Social Work Abstracts, as well as Sociological Abstracts) and other sources (Google Scholar along reference searching) were systematically searched for pertinent literature. As a result, from 3529 data, 27 quantitative researches on parental influences of youth's CDMSE that were published between 1983 and 2020 were found. Study looked at variations in relationships between youth's CDMSE and maternal influences alone, paternal influences exclusively, and influence of both parents. Parental cognition was found to have the strongest correlation with youth's CDMSE, followed by parent-child interactions as well as parenting practices. Research and practice of youth career development as well as parenting interventions will be significantly impacted by these results.

In accordance with Lee and Jung (2022), investigated how cognitive emotion regulation (CER) connects with CDMSE, mediated by CA, in Korean university students transitioning to work (n=357). Path analysis revealed that adaptive CER positively influenced both CA and CDMSE, while maladaptive CER negatively affected CA. CA completely mediated link between maladaptive CER as well as CDMSE and mediated, in part, connection between adaptive CER along with CDMSE. These findings highlight function of emotional regulation in shaping CA and self-efficacy, with theoretical & practical implications noted alongside acknowledged limitations.

Gedam and Mehta (2022) examined antecedents of CDMSE and its impact on job satisfaction among Indian IT professionals. Employing SCCT as framework, research explores how personal traits, workplace support, and career experiences influence CDMSE, and how this self-efficacy affects job satisfaction. Through a quantitative design and analysis of data from major Indian cities, findings highlight personality traits like conscientiousness and openness, strong mentorship, and professional development as key drivers of CDMSE. Individuals with higher CDMSE report greater job satisfaction, emphasizing role of proactive career planning and adaptability. The study underscores potential for enhancing CDMSE to improve employee engagement and satisfaction in dynamic IT industry.

CDMSE Scale by Jung and Yoo (2022), for nursing students was found unsuitable for Korea due to differing socio-cultural factors and changes in healthcare. In May 2021, methodical investigation was conducted utilizing recently created questionnaire with a sample of 400 nursing students. After reviewing literature and conducting focus group interviews, 56 items were created, and 40 with a content validity index above .80 were retained. Exploratory factor analysis identified 3 factors—adapting to work (20.5 percent), understanding major (20.2percent), and goal setting (16.4percent)—accounting for 57.1percent variance. Confirmatory factor analysis supported a final 17-item scale, with high reliability (Cronbach's $\alpha = .92$, test-retest ICC = .86). The items are distributed across three dimensions: adapting to workplace (7), and goal setting (6), understanding course (4).

Azpilicueta et al. (2023) intended to create CDMSE item Bank for personalized assessments in computer-assisted career guidance systems. They selected items from

widely used scales and employed item response theory (IRT) to create a unidimensional item pool. Reliability was ensured for both individuals and items, with simulations and concurrent validity testing validating the bank. The item analysis showed that the difficulty indices covered most of the continuum, except for extreme ability levels. Although some misfit was observed, global fit indices were generally good. The study provided content-related and criterion-related validity evidence, making item bank a valuable tool for assessing CDMSE across various career stages.

Liu et al. (2023) surveyed 273 undergraduates in China to explore vocational education skills as well as CA's relationship. Moreover, research also investigated whether or not CDMSE has mediating function in their interaction. Correlation between career education skills and CA is positive according to study results. This mediation model suggested that making career decisions self-efficacy and college students' social skills for careers both enhance CA significantly. It is therefore advised that universities diversify educational programs they provide increasingly promote such activities.

Based on cognitive career theory, Bi et al. (2023) explored how CDMSE mediates relationship between issues with career decision-making as well as professional self-concept in 276 postgraduate nursing students from 25 universities in China. Using CDMSE Scale, Career Decision-Making Difficulties Questionnaire, as well as Nursing Professional Self-Concept Scale, study revealed that these students struggled greatly with choosing a career. Multiple linear regression, Univariate correlation & PROCESS macro analyses showed that mediating factor is self-efficacy. Authors emphasized urgent need for collective societal efforts to address the challenges in career decision-making faced by nursing postgraduate students.

Rahayu et al., (2024) studied the career decision making self-efficacy capability of college going students belonging from collectivistic culture. They conducted the study using scoping review method and thoroughly studied carefully selected seven papers to learn that in these communities, there are internal and external aspects of family like emotional regulation, future perspectives, academic satisfaction, personality, career adaptation, career search skills, self-awareness, campus life adaptation, work experience, and self-competence that these subjects develop that aid them in possessing very high levels of this vital trait in them.

Xu et al. (2025) conducted a study on university students and found that grit along with career decision making self-efficacy play their partial mediating roles in a chain when basic psychological needs satisfaction was the independent variable and career adaptability was the dependent variable.

Summary: The studies reviewed reveal that CDMSE substantially influences career decision-making across various student populations. Other studies contributed to new assessment tools and highlighted function of personal traits in improving career decision-making. This variable is found to play a significant role in conjunction with its gamut of closely related academic and socio-demographic variables in shaping the career trajectory of individuals from various phases of life.

2.4 Critical Evaluations of Studies Examining Outcome Expectations/Vocational Outcome Expectations and Choice Goals/Career Goals

Hackett and Betz (1995) examined self-efficacy's importance in choosing a career and development, expanding on framework of Social Cognitive Theory. They explored impact of self-efficacy beliefs on career decisions, development, and behaviour, particularly through 4 main sources: vicarious learning, personal mastery, social persuasion, as well as emotional arousal. Their research highlighted that People who have greater self-efficacy are more inclined to set difficult goals, pursue career exploration, and persevere in overcoming barriers. Findings emphasized that self-efficacy directly impacts career interests, choices, and persistence, making it crucial element in professional growth and counselling. Additionally, they noted importance of addressing self-efficacy disparities by gender to promote more equitable career outcomes. These observations aid in the creation of efficient career counselling interventions intended to enhance self-efficacy beliefs, more favourable results and confirmed viable career choices.

Agarwala (2008) explored the factors influencing career choices among management students in India, focusing on family and workplace relationships, as well as cultural values like individualism and collectivism, and career orientations such as protean and conventional. The study, involving 93 first-year MBA students, found that "skills, competencies, and abilities" were the most significant factors in career decisions, with fathers playing a key role in shaping these choices. While collectivism was the

dominant cultural value, some individualist tendencies were also observed, and students largely exhibited a protean career orientation. The study highlights the need for broader research and provides insights for career counseling in the Indian context.

Bonitz et al. (2010) conducted the experimental design to investigate the idea that the development of self-efficacy may be preceded by vocational interests. Participants (n=180) evaluated job descriptions that included details on activities and work values for occupations in education, sales, and information technology. Participants gave those job descriptions ratings based on their level of confidence, interest, as well as intention to choose. 2 degrees of interest were created in each of all three work domains by manipulating information on work values experimentally. Compared to job descriptions that included information on less desirable values, participants showed noticeably greater interest in those that included information on desirable work values in each of three occupational categories. Findings indicate that altering the degree of professed interest in each occupational domain affected self-efficacy ratings directly as well as indirectly through choice goals.

Ziebell (2010) analysed role of adolescent CDSE as well as career maturity in simulating realistic career choices objectives among 220 adolescents. 220 adolescents' information was gathered using Career Decision Self-Efficacy-Short Form (CDSE-SF) along with the Career Maturity Inventory. The results showed that environmental backing like analysis of career path, enthusiastic, career maturity positively affected the efficacy of adolescents to make career choices and presume outcomes of relate to these career choices. It was reported that self-efficacy of career decision and occupational outgrowth consequences positively correlated with goals based upon career choices.

Song and Chon (2012) examined a mediation model in which it is hypothesized that the interactions of 3 influences such as career interests, general self-efficacy, and person-job fit perceptions influences the career choice goals among were 302 senior students from two tourism and hospitality institutes on the Chinese island of Hainan. The self-filled survey was used to collect the data from the Hospitality and Tourism Management (HTM) graduates. Four indirect causal pathways are identified by this mediation model such as (a) general self-efficacy > person-job fit > choice goals; (b) general self-efficacy > vocational interests > person-job fit; and (c) vocational

interests > person-job fit > choice objectives. SEM shows that every assumption regarding these 4 approaches has been demonstrated as they are all statistically significant.

Isik (2013) examined connections between locus of control, personal component, and social support, an environmental factor, and expectations for professional outcomes. For this reason, 263 undergraduate students completed the Rotter's Locus of Control Scale, the Multidimensional Scale of Perceived Social Support, and the Vocational Outcome Expectations Scale utilizing SCCT as theoretical framework. Findings showed that expectations for vocational outcomes were negatively correlated with locus of control and favourably connected with how friends, family, and substantial others were regarded to provide social support. Findings also showed that family support was only important indicator of VOE among perceived social support characteristics. Vocational outcome expectancy ratings were also significantly predicted by locus of control. Given these results, it is recommended that treatments focus on improving vocational outcomes.

By drawing on humanistic and positive psychology, Vela et al.(2015) aimed to comprehend elements influencing VOE among this population. In this study, perceptions of existence of meaning in life, hope, pursuit of meaning in life, significance of family, as well as subjective happiness were reported by 131 Mexican American adolescents. Notably, subjective happiness was found to be significantly predicted by family importance and life meaning. These results emphasize the significance of taking cultural and familial aspects into account while developing vocation, which has ramifications for counselors who work with Mexican American youths. Mexican American adolescents face unique challenges, including increased likelihood of mental health impairment as well as depression symptoms. This investigation clarifies how personal characteristics as well as family/community context interact by examining aspects that support optimal psychological functioning.

Shoffner et al. (2015) explored adolescents' beliefs about future careers and how these shape their job choices. During this critical period, students develop academic and career interests, with their outcome expectations influencing career paths, especially in STEM fields. To encourage STEM participation, many states have implemented policies at national and local levels. The researchers conducted focus groups with 95

participants (ages 10–14) to examine outcome expectations. While Bandura's self-efficacy theory identified physical, social, and self-outcome expectations, the study uncovered two additional categories: generativity and relational outcomes. These findings hold particular significance for addressing underrepresentation in science-related professions, especially for women and minority groups.

Vela et al. (2018) examined psychometric qualities of useful tool for assessing Latina/o students' career growth. Vocational Outcome Expectations (VOE) scale's structural validity was assessed using confirmatory factor analysis (CFA). The VOE scale's modest one-factor structure was supported by results. According to coefficient alpha, internal consistency was good. The validity and reliability of VOE with Latina/o students are supported by findings. There is a discussion on value of this career development metric.

Akosah-Twumasi et al. (2018) conducted a systematic review to examine factors influencing career decisions in individualistic and collectivist cultures, identifying gaps in existing research. The review, based on 30 articles from databases such as ERIC, PsychInfo, Scopus, and Informit, found that in collectivist societies, parental expectations significantly impact career decisions, fostering higher self-efficacy and confidence. In contrast, personal interests are the primary motivators in individualistic cultures. The study also highlighted the role of acculturation, noting that bicultural individuals tend to make intrinsically motivated career choices. The authors suggest further research on parental involvement and the diversity of experiences among bicultural adolescents.

To assist field in better comprehending how Latina/o students develop their careers, Vela et al. (2019) their study used a family positive psychology, as well as cultural framework for finding predictors that can affect vocations. With regard to this research, 120 college students contributed by giving what they thought were positive psychology, cultural awareness, family views and vocational expectations. It is important to note that other variables such as hope; meaning in life; Anglo orientation or Mexican orientation came up as substantial predictors for happiness levels too. The paper concludes with some implications for counselors.

Garcia et al. (2020) explored factors influencing career development of Latina/o adolescents, focusing on roles of hope, happiness, college-going beliefs,

enculturation, and acculturation. Using framework of culture and positive psychology, study aimed to comprehend how these variables affect vocational outcome expectations among this group. Study discovered higher levels of hope and stronger college-going beliefs were significant predictors of positive vocational outcome expectations, indicating that adolescents with more hope and a stronger belief in their ability to attend college were more likely to have optimistic career expectations. The study considered the cultural context, examining how acculturation and enculturation influenced career decision-making. The findings underscore the importance of fostering hope and reinforcing college-going beliefs to support the career development of Latina/o adolescents.

According to Iwanaga et al. (2020), in mental health as well as vocational rehabilitation services, self-determination theory (SDT) and self-efficacy theory (SET) are both utilized to describe self-motivation and forecast recovery. For integrating these theories into vocational recovery, appropriate SDT/SET measures must be established. In this study, Vocational Outcome Expectancy Scale (VOES) was validated in SDT/SET vocational recovery model. The investigation involved 124 participants having severe mental illness. 2-factor structure was reinforced by both exploratory as well as confirmatory factor analyses: positive and negative outcome expectancy. Both factors showed acceptable internal reliability, with positive expectations correlating more strongly with other SDT/SET constructs. VOES, brief tool for psychiatric rehabilitation practitioners to assess vocational expectations in line with SDT and self-efficacy theories.

Boo et al. (2021) stated that there has been insufficient empirical work in hospitality and tourism on the associations of choice goals, career anxiety, as well as academic performance despite extensive documentation through many studies. This research examines how undergraduate students' Career anxiety has been linked with their academic performance and choice aspirations in an integrated framework. It was found that academic achievement and choice goals had a negative relationship with career anxiety. Furthermore, choice goals were not significantly correlated with academic performance or mediated between academic achievement along with career anxiety. Academic advisors could apply findings from this study into practice along with counselors guiding students towards making decisions about their careers. The paper concludes by discussing areas for further inquiry.

Najam and Ghazal (2022) investigated what students believe they can obtain in terms of results from particular vocations and what underlying views and factors they have while choosing their career majors. It is a crucial part of career development since these factors can be taken into account when offering career guidance and counseling. In order to get insight into the future job choices and underlying consequences of these career decisions, 18 sample intermediate 12th-grades UG College students participated in interviews, nine of whom were male and nine of whom were female, drawn from both public and private sector degree institutions. Thematic analysis was used to examine the results. Results showed that when students are choosing a vocation, they take into account three different types of result expectations: social, physical, as well as self-outcomes.

In today's rapidly changing business and working world, the ability to adapt is a behaviour that every person needs at any stage of their career (Korkmaz and Yam, 2023). One thing that makes it easier for individuals to adjust themselves according to these changes is proactive career behaviours. When we talk about enhancing proactive career behaviours there are certain approaches we can take such as looking at SCCT which will give us findings that can be used in order for people to cope with the change they require. In light of this, what the study aims at is determining whether or not vocational outcome expectations mediate between hope/optimism/pessimism regarding future vision and proactive career behaviour. This study involved 442 university students who were between 18-27 y/o. The data analysis was performed by employing structural equation modelling technique. Based on findings obtained from this analysis leads to conclusion that vocational outcome expectations are influenced by visions about future.

In this study, Aslan and Koçak (2023)sought to investigate connection between perceived social support, VOE, and life happiness and impact of family on profession choices among students enrolled in postsecondary institutions. Research design used had been correlational research. According to findings, family impact on career choices as well as perceived social supports was found to be positive predictors for VOE as well as life satisfaction. Moreover, it was revealed that vocation outcome expectation is a positive predictor for life satisfaction too. Additionally, VOE partially mediates association between life satisfaction, perceived social support, and family impact on career decisions.

Thomas et al. (2024) aimed to investigate elements influencing postgraduate (PG) and undergraduate (UG) students' career choices at urban private universities and colleges in India. A variety of environmental factors impact professional decision-making, research sought to identify key determinants shaping these decisions. 33 questions in an initial pool were created and administered to 233 students, with Principal Component Analysis using Varimax Rotation revealing prominent factors. In a subsequent phase, confirmatory analysis had been conducted using data from 304 students. The findings highlighted four key factors influencing career decisions: (1) career clarity; (2) career inquiry; (3) career rewards and recognition; and (4) career activities for both professional and personal development. These insights offer valuable guidance for designing targeted career counseling interventions for UG as well as PG students in urban educational settings.

Guo (2025) conducted a critical study of investigating the role of vocational outcome expectations among other critical career related variables on adolescents living in a volatile, uncertain, complex and ambiguous (VUCA) world using multilevel linear models. The results communicated that after the 2020 pandemic, there is a marked rise in the uncertainty levels related to career in this cohort group and especially belonging to certain nations of specific economic profiles. Monetary conditions played a critical role in fueling lower self-efficacy and higher career indecision, unrelated to schooling and personal inputs. Career indecision was positively related to lack of training, education and work, especially in marginalized learners. Gender-wise, girls were found to gain more from offering of guidance in career related matters in a targeted fashion.

Summary: This review examines studies on the factors influencing career choices, emphasizing roles of cultural values, VOE, social support, family influence, and personal traits. Key findings show that family support and self-efficacy are crucial in shaping career outcomes, while factors like hope, happiness, and meaning in life also play a significant role. Cultural and familial contexts, particularly in collectivist societies also play their critical roles along with factors like career maturity and self-efficacy. Moreover, psychological factors improve vocational outcomes. Findings also highlight the impact of career anxiety, academic performance, and career goals, underscoring the need for targeted, culturally sensitive career counseling.

2.5 Reviews on Studies Examining the Relationship between Personality and Career Decision Making Self-Efficacy

Nauta (2004) studied linkages between 147 college students' career interests, career self-efficacy (using Holland's realistic, social, investigative, enterprising, artistic, and conventional types for both of latter), and the Big Five personality traits (openness, conscientiousness, agreeableness, extraversion, as well as neuroticism). Self-efficacy was found to moderate four of the five personality-interest connections that have been demonstrated to be substantial across many different populations. Career counselors who are assisting clients in comprehending the results of their interest assessments should take note of the findings, which generally support the model of interest development proposed by social cognitive career theory.

Out of 184 college students in sample, Wang et al. (2006) examined how CDMSE and personality affected development of career choice commitment. Relationship between extraversion, neuroticism, and commitment to a professional choice was thought to be mediated by self-efficacy. On the study variables, it was found that white students and a composite group of students of color differed significantly. It was determined that for students of color, neuroticism and extraversion were both directly and indirectly related to career choice commitment through self-efficacy, but for white students, association between extraversion as well as career choice commitment was mediated by self-efficacy.

The big five personality traits may have two types of impacts on career self-efficacy: content-correspondence effects and generalized, domain-specific, nonspecific effects. This idea was investigated by Hartman and Betz (2007). Relationships between NEO Five-Factor Inventory, Expanded Skills Confidence Inventory, CDSE, and hypothesis are examined using 24 different dimensions of career-related self-efficacy confidence for 6 Holland themes. The fact suggests that neuroticism showed substantial negative links with all types of career self-efficacy, while conscientiousness, as well as extraversion both, had favourable correlations with a variety of self-efficacy dimensions.

In their 2009 study, Feldt and Woelfel (2009) investigated the incremental validity of several profession-related characteristics, looking at how these elements affect career choice independent of personality and gender. 179 undergraduate students

participated in the study and answered a thorough survey in addition to two important tests: the NEO Five-Factor Inventory (NEO-FFI) and the Career Decision Scale (CDS). The poll evaluated students' perceptions of whether their chosen career pathways will provide various job-related outcomes, such as high salary, and focused on the significance of these outcomes. It also assessed their self-efficacy in a number of crucial areas, such as their capacity to finish school, get employment, succeed in their position, and pursue career promotion. Examining these variables, the study sought to determine how well these structures predict career choices independent of individual variations regarding personality traits and gender.

Jin et al. (2009) examined the relationship between the Five-factor Model of personality and the career commitment process (i.e., vocational commitment and the propensity to foreclose) in 785 Chinese graduate students, as well as the mediation role of career decision self-efficacy. Both directly and indirectly, through career decision self-efficacy, neuroticism and conscientiousness were found to be significantly correlated with advancement in vocational commitment, according to multiple regression analysis. The low premature foreclosure was correlated with high agreeability. It was concluded that CDSE has been connected to both a strong tendency to foreclose and greater progress in vocational commitment.

Bullock- Yowell et al. (2011) investigated hypothesis that among African American and Caucasian students, CDMSE might be influenced by negative career ideas, the Big Five personality traits, and cultural mistrust. It was observed that conscientiousness, openness, and negative career thinking accounted for a considerable portion of the variation in self-efficacy in making career decisions. However, for sample of African American college students, cultural mistrust had no effect on CDMSE.

Ambiel and Noronha (2016) intended to validate accuracy of Big Five personality factors related to career choice self-efficacy and using information gathered from 308 high school students in three distinct grades from both public as well as private schools to develop personality profile of individuals with varied degrees of self-efficacy. Analysis of variance with repeated measurements profile, multiple regression analysis, and effect size of differences were all estimated using Cohen's d. It was observed that self-efficacy was primarily predicted by extraversion, agreeableness,

and conscientiousness. Extreme groups showed differences ranging from medium to large and conscientiousness and extraversion are traits and qualities that most effectively differentiated those with high self-efficacy from those with low self-efficacy.

Brown and Cinamon (2016) concentrated on how 368 Israeli adolescents ($M_{age}=16.07, SD=0.41$) developed self-efficacy and outcome expectations in relation to choosing a high school major, and how Big Five personality traits contributed to this development. According to structural equation analyses, self-efficacy increased with conscientiousness, extraversion, and a decrease in neuroticism. On other hand, higher result expectations were associated with lesser extraversion and higher levels of neuroticism and conscientiousness. These findings provide significant implications for vocational interventions with adolescents and deepen our comprehension of how personality traits function as antecedents of self-efficacy and outcome expectations.

Chinyere (2017) explored connection between CDMSE and personality qualities in Malaysian UG students, both male and female. Employing CDMSE-SF and TAJMA Personality Profile 2nd Edition (TPP2), the study involved 281 participants from Universiti Teknologi Malaysia. Results showed that among students studying electrical engineering, cross-cultural competency, and analytical tendencies were high, while extroversion, achievement, integrity, and patriotism were most prevalent personality traits. Electrical engineering students demonstrated greater confidence in goal selection, self-evaluation, and planning, even though there was no discernible difference in CDMSE between male as well as female students overall. According to a structural equation model, personality traits and self-efficacy in making career decisions were positively correlated, as were gender and career decision-making; however, personality traits and gender were negatively correlated. The study recommends using this model for career counseling and student career selection.

Sharma and Suri (2019) examined moderating effects of Big Five personality traits (Extraversion, Neuroticism, Agreeableness, Conscientiousness, as well as Openness to Experience) and self-efficacy on dedication to career choice, with a particular emphasis on the propensity to foreclose and vocational exploration. Study involved a sample of 400 third-year BA students from natural and social sciences at Jamia Millia Islamia, New Delhi. Utilizing NEO PI short form, CDMSES scale, and Commitment to

Career Choice Scale, moderation analysis had been conducted using Hayes Process Model 1 (version 2.0). The findings revealed that while Openness to Experience considerably regulated the link between CDMSE and Tendency to Foreclose, Neuroticism as well as Conscientiousness significantly moderated the relationship between CDMSE and Career Choice. However, Agreeableness as well as extraversion weren't shown to be important modifiers in same relationships. This study contributes positively to existing research by highlighting moderating role of Big Five personality traits in relationship between self-efficacy beliefs and Commitment to Career Choice, emphasizing importance of personality traits in actively seeking career options and enhancing likelihood of achieving commitment to a career path.

Penn and Lent (2019) examined the ways in which CDMSE and the Big Five characteristics—extroversion, neuroticism, conscientiousness, and extroversion—can influence decisional difficulty and career decision status. Based on the tenets of the social cognitive model of career self-management, it was expected that self-efficacy would regulate the relationships between personality traits and degree of decidedness and choice/commitment anxiety (CCA), a significant cause of indecision. Additionally, potential role of qualities in moderating relationship between self-efficacy and dependent variables was investigated. Support for a mediational model, in which each personality attribute is linked to self-efficacy, which in turn predicts CCA and decidedness, was discovered utilizing 182 students sample. Furthermore, it was shown that conscientiousness mediated link between CDMSE and CCA, while extroversion moderated association between self-efficacy and decidedness.

Sharma and Sushma (2019) examined the moderation effects of Big Five personality traits (extraversion, neuroticism, agreeableness, conscientiousness, as well as openness to experience) and self-efficacy on commitment to career choice (propensity to foreclose and vocational exploration) among 400BA students at Jamia Millia Islamia in New Delhi. Using NEO PI short form, CDMSE Scale, and Commitment to Career Choice Scale, they applied Hayes' process 2.0 model for moderation analysis. Results indicated that whereas openness to experience regulated link with propensity to foreclose, neuroticism and conscientiousness affected relationship between CDMSE and career choice. Extraversion and agreeableness did not significantly mediate these relationships.

Wu et al. (2020) investigated correlation between 202 university students from underprivileged rural areas in China and their CDMSE personality qualities. According to the study, senior students were more amiable than younger ones, social science students were more neurotic than students in other fields, and female students were more neurotic than male students. Gender disparities in accurate self-evaluation and study year differences in information gathering were observed, but there were no significant differences in the overall CDMSE. Neuroticism had a negative correlation with CDMSE, while conscientiousness, agreeableness, openness, and extraversion had positive correlations. Except for agreeableness, the traits significantly predicted CDMSE. The study suggested collaboration between government, universities, and industries to support the development of proactive traits and enhance CDMSE in students from poor rural areas, promoting educational equity.

Ramadhani and Suharso (2021) carried performed this study to determine whether or not a proactive personality acts as a mediator in relationship between high school students' self-efficacy and their parents' engagement in their professional decision-making. 758 second-year students from Jabodetabek, which includes Tangerang, Bogor, Jakarta, Depok, and Bekasi, served as experiment's subjects. Parent Career Behaviour Checklist (PCBC), Career Decision Self-Efficacy Scale Short Form (CDSES-SF), and Proactive Personality Scale (PPS) had been employed as instruments for collection of data. Based on results, there is an indirect association between self-efficacy in career decision makings with parental supportiveness; moreover such connection has been partially supported by the presence of proactive personality trait. It was also found that self-efficacy in career decision-making was directly impacted by two factors: parental supportiveness and action on part of parent.

Abe et al. (2021) paper looked into the factors that influence STEM career choices amongst South African university students. By understanding these aspects better educators or policy makers could be able assist these learners select appropriate careers based on their backgrounds, personalities and expectations about life after school. In order to find out what factors influenced their decision to pursue a career in field of science, technology, engineering or mathematics, a semi-structured questionnaire was sent out to students who were in their 1st, 2nd, 3rd, and 4th years of study. 203 texts were qualitatively analysed using hermeneutic phenomenology approach to traditional content analysis with a response rate of 63%. In other words,

themes emerge from the data inductively. It was reported that their decision-making was greatly influenced by family members as well as personalities and expectations.

Baruddin et al. (2021) examined how personality traits and CDMSE influence career choice commitment among 200 undergraduate students at Universiti Teknologi Malaysia. Using Pearson correlation and regression analyses, study found significant relationships between openness, extraversion, and agreeableness with aspects of career commitment, such as Vocational Exploration and Commitment (VEC) and Tendency to Foreclose (TTF). CDMSE emerged as a key predictor of career commitment, emphasizing the need for enhanced decision-making skills. The study recommends targeted interventions by universities and counselors in assisting students in building career readiness as well as confidence.

Duru et al. (2021) examined challenges in making career decisions using the 418 high school students' personal characteristics and self-efficacy. Career Decision-Making Difficulties Questionnaire, Adjective Based Personality Test, and CDMSE Scale were utilized for collection of data. Pearson connection examination had been carried out to distinguish connection among factors, and numerous direct relapse investigations to decide prescient power for the reliant variable. The findings demonstrated that certain sub-dimensions (agreeableness, neuroticism, accurate self-evaluation, along with goal selection) were able to predict the connection between low and medium levels of personality traits and self-efficacy in making career decisions.

Zulkifli et al. (2021) investigated the variations in pre-university students' personalities and CDMSE levels by gender. In addition, they also determined correlation between pre-university students' CDMSE as well as personality using mixed method research design. As 175 pre-university students were selected to be interviewed in order to obtain qualitative data, the respondent was selected through the simple random sampling method. CDMSE-SF and Big Five Inventory-2 (BFI-2) were utilized for collecting data process. Statistical Package for Social Science 25.0 (SPSS) had been used to analyse data. According to findings of this study, degree of self-efficacy among Machang Kelantan pre-university students in making career options is noticeably greater.

Mujiati and Salim (2021) extended previous research on effect of proactive personality as well as attributions on CDSE by focusing on 12th-grade vocational school students.

Their study, involving 858 students, used Assessment of Attributions for Career Decision Making (AACDM), Proactive Personality Scale (PPS), and CDSE Scale-Short Form (CDSES-SF). The findings revealed that while both proactive personality and attributions influence CDSE, proactive personality has a stronger impact. These results suggest that interventions for vocational school students ought to concentrate on creating proactive personality qualities in order to increase effectiveness of career decision-making.

Söner and Yılmaz (2022) studied relationship link CDMSE, adjective-based personality qualities, as well as teenage career anxiety; additionally, to determine degree to which adjective-based personality factors predict career anxiety and decision-making self-efficacy. 511 girls as well as 199 boys from different high schools in Istanbul, Turkey, are study participants. Data was gathered using CDMSE Scale, Career Anxiety Scale, and Adjective Based Personality Scale. The data was subsequently analysed using Prescient Correlation Model. The Pearson correlation analysis had been employed to ascertain relationship between variables, and ability of personality traits based on adjectives to predict professional anxiety and CDMSE was investigated using standard multiple regression analysis. The study revealed a number of significant correlations relationship CDMSE, adolescent's career anxiety, and adjective-based personality characteristics.

Mohan (2023) investigated function of personality traits, CDMSE, and career maturity (CM) in shaping career behaviors among professional college students in National Capital Region (NCR) and Delhi. Utilizing a sample of 480 undergraduate students across humanities, engineering, and management streams, research examines impact of Big Five personality factors (Agreeableness, Neuroticism, Extraversion, Openness, as well as Conscientiousness) on CDMSE and CM. Findings reveal significant relationships between conscientiousness, openness, and extraversion with CDMSE and CM, while neuroticism negatively impacts both. Gender, institutional type, and academic stream show limited differences in these career-related traits. The study concludes that enhancing personality traits such as conscientiousness and openness can positively influence students' career decision-making and readiness. These insights emphasize significance of early career guidance as well as personality development in fostering career readiness among students.

Turda (2024) examined the connection between CDMSE, personality traits, and vocational identity among 300 Romanian young people which belongs to various studies/profiles such as formal sciences (specializations: Math informatics and Inherent Sciences), administrations (specializations: Financial matters, exchange, the travel industry and food) and humanities (specialization: Philology). Vocational Identity Status assessment (VISA), NEO Five-Factor Inventory (NEO-FFI-3), and CDMSE-SF had been the tools utilized in adolescent's evaluation procedure. Outcomes showed that some personality qualities and, in turn, certain aspects of choosing a career are predictors of development of the adolescent's occupational identity.

Tsai et al. (2024) found that the proliferation of universities and technical colleges in Taiwan has increased access to education, but it has also resulted in many socially naive graduates lacking essential job market skills, highlighting the need to investigate employability among students. Despite a high number of learners specializing in hospitality, the tough and volatile employment conditions in tourism industry demand stronger employability skills. This research assesses correlation link personality traits, employability, self-efficacy, and innovation within hospitality and tourism sectors. The findings align with previous studies, supported by descriptive statistics and factor analysis, revealing that personality types influence soft skills like adaptability, which in turn enhance hard skill acquisition such as self-efficacy. However, self-efficacy encompasses these abilities and is directly linked to creativity and innovation, ultimately increasing employment chances.

Sheng and Caiga (2024) investigated relationships between career social support, CDMSE, and proactive personality, among college students from China. As competition in China's job market intensifies with the growing number of university graduates, understanding factors that enhance career planning is crucial. Using a sample of 430 students from Zhejiang Province's J University, this research explores how a proactive personality and career social support influence CDMSE, a key factor in effective career planning. Data were analysed using SPSS 25.0, revealing that a strong proactive personality was associated favourably with greater levels of career social support and greater CDMSE. Students with proactive tendencies had been more inclined to look for assistance and resources linked to their careers, which in turn boosted their confidence in making career decisions.

Findings indicate that fostering a proactive personality and enhancing access to career social support can significantly improve students' self-efficacy in career decision-making. Based on these investigations, study recommends that universities focus on early career planning education, integrate career guidance with academic curricula, and strengthen employment services. Such efforts would empower students to develop clearer career goals and improve their ability to navigate the job market. This research provides valuable insights for academic institutions and policymakers aiming to support students' career development & offers a foundation for further exploration of career planning factors among Chinese students.

Summary: The reviewed studies emphasize the crucial role of personality traits, particularly conscientiousness, extraversion, and neuroticism, in influencing CDMSE and career outcomes. Investigations confirms that personality traits, like extraversion as well as conscientiousness strongly relate to career interests and self-efficacy, where self-efficacy acts as a mediator between personality and career choice. It consistently mediates the relationship between traits and career commitment, highlighting its importance in career development. Gender and cultural background further influence this relationship, with self-efficacy mediating outcomes differently across groups. Conscientiousness, extraversion, and agreeableness are key predictors of CDMSE, while neuroticism and conscientiousness moderate effect of self-efficacy on career commitment. Cultural and educational contexts shape how personality traits and self-efficacy interact, emphasizing the need for culturally sensitive interventions. Additionally, a proactive personality and career support networks enhance CDMSE, underscoring the importance of external support.

2.6 Reviews on Studies Examining the Relationship between Career Decision Making Self-Efficacy and Outcome Expectation or Vocational Outcome Expectations

Betz and Vuyten (1997) explored impact of self-efficacy and outcome expectations for college students' career exploration and decision-making. The study aimed to investigate how individuals' confidence in their capacity to participate in career-related activities (career decision-making self-efficacy) and their beliefs about outcomes of these activities (outcome expectations) influenced their willingness to explore career options and make definitive career decisions. Using correlational

analyses, investigators discovered substantial correlation between greater CDMSE levels and more career exploration as well as higher levels of career decidedness. Outcome expectations also played a key role, as individuals who had positive expectations about career outcomes were more likely to actively engage in career exploration and exhibit greater certainty in their career choices. These findings highlight significance of result expectations and self-efficacy in process of career growth, suggesting that career counselling should focus on enhancing these psychological factors to foster more effective career decision-making and exploration.

Gore and Leuwerke (2000) examined how 93 college students, ages 17 to 47, related to outcome expectations, self-efficacy beliefs, congruence, as well as occupational considerations. Participants, enrolled in a career planning class, volunteered for study. Using SCCT along with Holland's theory, study found that occupational considerations were influenced by self-efficacy and outcome expectations. A slight positive correlation between congruence and occupational concerns was found using hierarchical regression analyses; however, this association vanished when self-efficacy beliefs as well as outcome expectations included into model. Findings suggest that congruence alone is not as important in determining career choices as self-efficacy and result expectancies. This highlights the importance of focusing on enhancing these psychological factors in career counseling.

Ali et al. (2005) conducted to establish for 114 ninth graders from lower socioeconomic families, associations between contextual support perceived educational hurdles, vocational/educational self-efficacy, and result expectancies were investigated. According to findings of this exploratory pilot study, a considerable portion of variation in vocational/educational self-efficacy views was explained by peer and sibling support. Contextual supports and barriers did not explain any particular variance linked to occupational outcome expectations, and vocational/educational self-efficacy beliefs also strongly predicted vocational outcome expectations.

Gushue (2006) examined how self-efficacy and outcome expectations, two factors that SCCT identified as determining job goals, relate to ethnic identity. Ethnic identity was found to have a direct and positive link with career decision-making self-efficacy for a sample of 128 Latino/a ninth graders, whereas self-efficacy mediated its association

with career planning outcome expectations. These findings lend credence to taking ethnic identity into account while guiding Latino/Latina adolescents in their self-discovery and career choices.

Gushue and Whitson (2006) investigated how 104 African American ninth-grade students' cognitive variables of career decision self-efficacy and result expectations were affected by two possible sources of strength (i.e., ethnic identity and parent/teacher support). The findings show that career decision self-efficacy and professional outcome expectancies are favourably correlated with parental support, while career decision self-efficacy and teacher support are positively correlated with each other. There is no correlation between ethnic identification and result expectancies or self-efficacy. Results validate significance of taking contextual supports into account while providing career counselling as well as instruction.

Ziebell (2010) gathered 220 inner-city adolescents (grades 10–12) with a mean age of 16.33 from a public school in a Midwestern U.S. city in order to investigate relationships between person factors, CM, environmental factors, CDMSE, VOE, and viable career choice goals. According to study, CDMSE and expectations for occupational outcomes were positively correlated with environmental supports such professional maturity and less perceived impediments. Higher CDMSE and VOE were linked to feasible career choice goals, which is consistent with SCCT.

Conklin et al. (2013) investigated an SCCT-based model that linked college students' affective involvement with their major to CDSE and career outcome objectives. In a sample of 200 students from a Mid-Atlantic public university, they found that CDSE mediates the relationship between affective commitment and expectations for professional outcomes, such as expected success and satisfaction (28 percent male, 72 percent female). Additionally, students' assessments of how well their major matched their needs and strengths governed these gains. The study gives academic advisers and career counselors advice by highlighting the significance of commitment and self-efficacy in predicting professional success.

Metheny and McWhirter (2013) studied relationship between 270 college students' perceived social status (DSI), family support, and socioeconomic position (SES) and their professional decision-making was examined. Using their route model, they looked at job-related outcome expectations and predictors of career decision self-

efficacy. Although SES affects educational and occupational outcomes, it was not directly associated with self-efficacy or expectations of favorable outcomes. This implies that collegiate settings have mitigating factors. Conversely, DSI improved self-efficacy, which in turn had a subtle impact on outcome expectancies. Although there was a slight indirect effect of SES on self-efficacy because of family support, there was no significant moderating role for family connections.

Baglama and Uzunboylu (2017) investigated the connection between pre-service special education teachers' VOE and career decision self-efficacy in North Cyprus. The study emphasizes how self-efficacy and outcome expectancies impact job decisions and actions, drawing on social cognitive career theory. The CDSE Scale and VOE Scale were completed quantitatively by 156 participants. The data was analyzed using statistical techniques such as regression, correlation, t-tests, chi-square, Kruskal-Wallis, and descriptive statistics. The results showed that CDMSE and VOE were significantly correlated, and that age was also significantly correlated with self-efficacy in making professional decisions.

Lent et al. (2017) evaluated the main sources of result expectations as well as self-efficacy about career exploration and decision-making activities. These sources included affect (both good and negative) experienced in connection with job exploration and decision-making, verbal persuasion, personal mastery, and vicarious learning. In addition to domain-correspondent measures of self-efficacy, outcome expectations, objectives, and degree of vocational decidedness, 324 college students participated in the study by completing an experiential sources measure. Although the sources of verbal persuasion and personal mastery were significantly connected, a confirmatory factor analysis supported a 5-factor description of the experiential sources. Overall, the source variables explained more of the variation in self-efficacy than in outcome expectations, and self-efficacy mediated a significant amount of their relationship to outcome expectations. A path model that included the source factors in the prediction of career exploration goals and degree of career decidedness was also shown to have good support.

Bü and Özdemir (2020) examined variables that predict college students' VOE using the social cognitive career theory as a guide. The study, which included data from 281 students, discovered that expectations for occupational outcomes were highly

influenced by self-efficacy beliefs and perceived career constraints. Self-efficacy and expectations for occupational outcomes showed a moderately positive link, whereas career impediments showed a weakly negative correlation. Expectations were also strongly impacted by gender differences [$t=3.16(100)$; $p<.05$], self-improvement activity engagement [$F(2)=5.06$; $p<.01$], and perceptions of academic accomplishment [$F(2)=6.03$; $p<.001$]. The results emphasize how crucial it is to address impediments and self-efficacy while career planning.

Abe and Chikoko (2020) used SCCT as a framework in studying link among CDSE and career outcomes expectancy (COE) among 203 STEM students at a South African institution. COE as well as CDSE scales were used to collect the data, and SPSS software was employed for analysis. Findings revealed that whereas COE had statistically substantial association with CDSE, age, and race had a significant impact on CDSE. Additionally, it was discovered COE was favorably anticipated by CDSE, highlighting both factors significance taken together in career decision-making.

Molyn et al. (2021) performed an empirical investigation of the relationship between post-1992 university students' job-seeking behaviours, career decision self-efficacy, and expectations for vocational outcomes. SCCT is its foundation. The study demonstrates that while students' gender and ethnicity influence their job-seeking activities, career decision self-efficacy and career result anticipation are positively correlated with job-seeking actions. Studies that look at empirical result expectancies in the literature are scarce. This essay demonstrates the importance of vocational outcome expectations in SCCT and their intimate relationship to students' job-seeking endeavours.

As per Luo et al. (2021), developing students' enthusiasm for STEM careers is one of the goals of STEM education. Although it hasn't been studied before, it seems sense to assume that students' stereotyped views of occupations in science, technology, engineering, and mathematics may be connected to their career interests. This study aimed to determine the degree to which students' beliefs about science subjects like physics, chemistry, and so forth at the upper primary level predict their self-efficacy expectation outcome regarding various aspects of stem careers, and how these two factors predict much more than just interest alone. Structural equation modelling was used for statistical analysis in the survey, and 824 students in grades four through six

were evaluated using the suggested models just for validation; no additional techniques were used in this investigation.

Using SCCT, Shang et al. (2022) examined mitigating impacts of occupational self-efficacy as well as VOE on pre-service teachers' learning engagement in relation to career calling. The goal of study was to comprehend how clear feeling of one's professional calling affects teachers-in-training, specifically how learning engagement is influenced by their expectations for future career outcomes (vocational outcome expectations) and belief in their own abilities (occupational self-efficacy). To evaluate these correlations, the study used multiple mediation analysis on a sample of pre-service instructors. According to the results, career calling considerably raises learner engagement, and VOE and occupational self-efficacy both act as mediators. In particular, career calling had a favourable impact on self-efficacy, which raised expectations for occupational outcomes and increased learning activity participation.

Chao et al. (2022) examined the variables affecting college students with disabilities' expectations for outcomes and CDSE. Given the particular difficulties this group faces in managing shift from education to employment, study sought to determine major factors influencing their career decision-making processes. Researchers investigated how environmental, social, and personal factors affect CDSE and expectations for professional outcomes using a sample of college students with disabilities. The study discovered that CDSE and outcome expectations were significantly increased by both external factors, such as family support and resource accessibility, and personal traits, such as resilience and self-esteem. According to findings, enhancing career prospects for students with impairments requires specialized interventions that address both internal and external constraints.

Appling et al. (2022) made an effort to use career development interventions to improve the result expectations and self-efficacy of students with impairments. When creating relevant and suitable career development interventions for students with impairments, SCCT is a useful approach. K–12 students with disabilities will have higher self-efficacy and outcome expectancies when treatments are developed using SCCT, which will result in more positive, realistic, and meaningful career beliefs and behaviours. In addition to discussing potential interventions for school and college

counsellors, this paper examines self-efficacy as well as outcome goals for pupils having impairments.

Hajjina and Retnawati (2022) investigated the variables affecting self-efficacy as well as outcomes expectations in learning mathematics, validating model having data utilizing First Order Confirmatory Factor Analysis. Purposive sampling was utilized to choose students with different math proficiency levels for the study, which involved 53 students from SMA Plus Al Athiyah Aceh. After eliminating two items, self-efficacy and result expectation tools demonstrated acceptable construct validity, according to data analysis employing Linear Structural Model (LISREL). It was discovered that while the significance of learning mathematics (item d2) predominantly indicated outcome expectations, belief in solving math problems (item c1) most strongly reflected self-efficacy.

Suh and Flores (2022) studied social cognitive career self-management model and significance of cultural elements within Asian American students' professional growth process. A prominent concept in Asian culture, perfectionism was linked because family obligations are highly valued in society, both for academic as well as professional success. Therefore, its effect on VOE and CDSE of Asian American students was investigated. The findings demonstrated, even after adjusting for impact of acculturation as well as enculturation, perfectionism still strongly explains career decision self-efficacy as well as VOE. Results shed light on significance of perfectionism for Asian American students and offer a fresh perspective on their career development process.

Odacı et al. (2023) investigated, using a sample of 463 students (327 female, 136 male), the contribution of university students' problem-solving abilities to their CDMSE and VOE. CDMSE, VOE, and problem-solving skills all showed positive, substantial associations, according to statistical analysis. 25% of the variation in CDMSE and 17percent of the variance in expectancies for vocational outcomes were explained by problem-solving abilities. Study highlights how crucial it is to improve students' problem-solving abilities in order to raise their expectations for job results and their confidence in making career decisions. These results imply that educational initiatives that develop problem-solving skills may enhance students' vocational aspirations and career decision-making processes.

Jiang et al. (2024) examined the relationship between Chinese high school students' interest in STEM disciplines and career awareness, with a focus on outcome expectancy and self-efficacy as mediators. According to the report, Chinese youth frequently lack interest in and knowledge about STEM occupations, which could limit their options in future. Aim of this research had been to determine how students interest in STEM-related occupations was influenced by their level of outcome expectancy as well as self-efficacy. 2,542 pupils from both eastern and western China made up sample, structural equation modeling had been employed for evaluating data. Study also looked at how these factors' levels and inter-correlations varied by gender.

Summary: Impact of outcome expectations as well as self-efficacy on career decision-making & vocational goals has been the subject of numerous research. Outcome expectations also played a key role, as individuals who had positive expectations about career outcomes were more likely to actively engage in career exploration and exhibit greater certainty in their career choices. These studies highlight the importance of focusing on enhancing these psychological factors like vocational outcome expectations in career counseling. Educational initiatives that develop problem-solving skills through mathematics may enhance students' vocational aspirations and career decision-making processes.

2.7 Overall Summary from the Literature Reviews

The following is a summary of the key findings from the literature reviews mentioned above:

1. **Personality Traits and Career Development:** Conscientiousness and openness are strong predictors of career planning and academic success, while neuroticism hinders both. Personality traits also influence subjective career satisfaction and preferences, with self-efficacy playing mediating function in career decision-making.
2. **Career Decision-Making Self-Efficacy (CDMSE):** CDMSE significantly impacts career decision-making across various student populations. It mediates relationships between career adaptability, decision-making styles, as well as career outcomes, highlighting significance of social support, personal traits, as well as career information services in improving CDMSE.

3. **Factors Influencing Career Choices:** Family support, social support, self-efficacy, cultural values significantly influence career outcomes. Positive psychological factors like hope and happiness also play key roles, and targeted, culturally sensitive career counseling is needed.
4. **Impact of Personality on Career Decision-Making:** factors like extraversion, conscientiousness, as well as neuroticism influence CDMSE and career outcomes. Culture, gender, and support networks further shape these relationships, emphasizing the need for personalized interventions.
5. **Self-Efficacy and Outcome Expectations:** Vocational goals and career decision-making are heavily impacted by outcome expectations as well as self-efficacy with ethnic identity, environmental factors, and social support enhancing career outcomes.

2.8 Research Gaps

Based on the summary provided, the key research gaps that emerge are:

1. **Cultural and Socioeconomic Influences on Career Decision-Making:** Ways in which cultural, social, and identity issues influence connection between personality traits, self-efficacy, as well as career choices require further investigation.
2. **Contextual Factors and CDMSE:** Need for further studies to understand how family dynamics, educational environment, and community support impact career decision-making self-efficacy, especially in underrepresented groups.
3. **Long-Term Effects of Vocational Outcome Expectations:** Additional long-term studies are needed to examine lasting effects of interventions aimed at improving vocational aspirations and career decisions.
4. **Comprehensive Assessment Tools:** Further research is needed to develop and validate assessment tools that capture the complex nature of career decision-making and vocational development.
5. **Career Calling and Its Impact:** There is a gap in research on how career calling interacts with self-efficacy and VOE, particularly in specific populations like pre-service teachers.

There is a notable gap in understanding how personality traits impact career choice goals and mediating role that CDMSE and outcome expectations could play in this process. With an emphasis on the mediating role of CDMSE and outcome expectancies among secondary school students, this study aims to close this gap by examining the association among personality traits as well as career choice aspirations.

Although earlier studies have demonstrated how personality factors affect career choice goals, (McCrae and Costa Jr, 1997; John et al. 2008) the mechanisms through which these traits influence career decision-making are not fully understood. Existing literature has highlighted the direct effect of character on career choices, yet has less frequently explored how personality traits influence student's confidence in making these decisions (CDMSE). This idea of self-efficacy is essential as it directly affects a student's perceived ability to collect data, make informed decisions, and ultimately choose a career path that aligns with their goals and capacities. Besides, the existing studies primarily focus on college students and adults, with limited studies focusing on secondary school students who are at a crucial decision-making juncture.

The SCCT posits that CDMSE and OE play vital roles in shaping career interests and choices (Lent et al., 1994). However, their role as mediators between personality traits and Choice Goals remains underexplored. This gap in understanding highlights the need for empirical research examining the interplay of personality traits, CDMSE, outcome expectations, and Choice Goals among senior secondary school students. There seems to be a gap in the form of how personality affects choice goals, mediated by CDMSE and Vocational Outcome Expectations, among secondary school students. Filling of this gap could lead to insights that could inform targeted interventions to improve career readiness and decision-making of secondary school students.

2.9 Conceptual Framework

The following conceptual framework is developed based on the above mentioned exercise of the reviewing the literature of the variables of the present study and the identified research gaps:

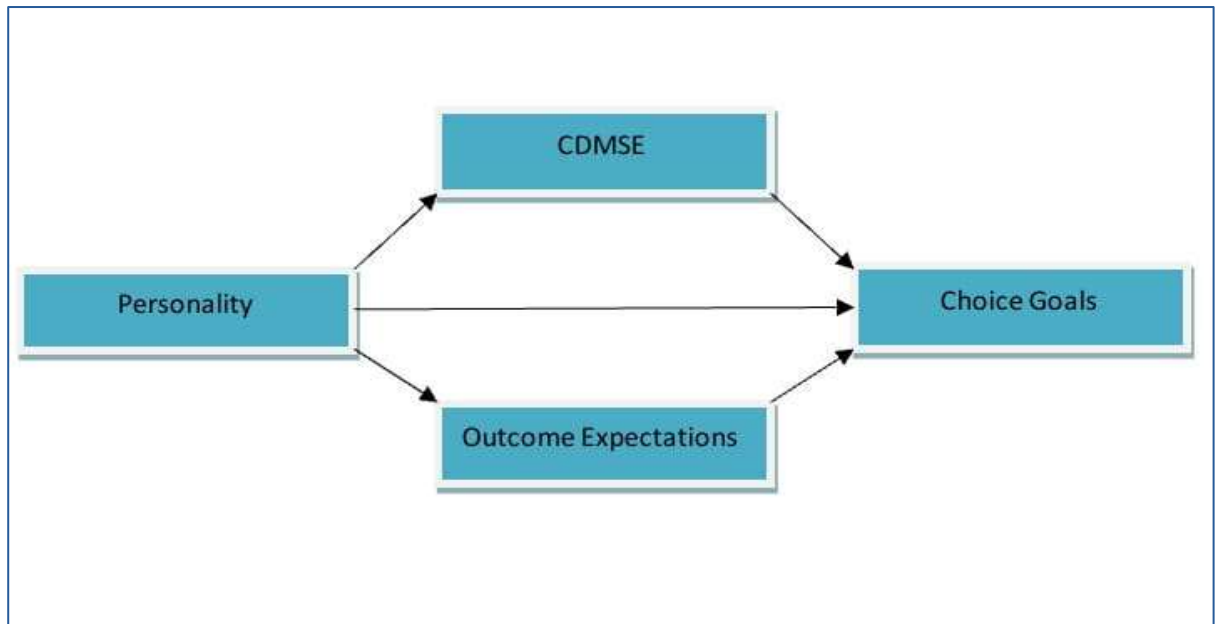


Fig. 2.1 Conceptual Framework

Based on the conducted literature review, it was proposed that personality predicted both career decision making self-efficacy and vocational outcome expectations of secondary school students which in turn impacted the career choice goals of these students. Hence, the present study strived to investigate and establish empirically the above shown predictive relationships existing between the discussed variables of interest in the Indian context.

CHAPTER-III

RESEARCH DESIGN

3.1 Introduction

The Research Design and Methodology section is an essential element of any thesis, as it delineates the framework and techniques employed to tackle the research issue. Research design denotes the comprehensive plan that cohesively integrates many components of the study, guaranteeing the research problem's effective resolution.(Kothari, 2004).It serves as the foundation for data collection, measurement, and analysis. The selection of research design is determined by the study objectives, the properties of the research topic, and the accessibility of resources (Saunders et al., 2019). The major goal of this chapter is to discuss the manner in which data was collected so as to improve the validity and trustworthiness of the results (Creswell, 2008).

The details of this chapter involve discussion of the research design first, followed by the sampling methods, data collection techniques, and the instruments used to measure personality traits, CDMSE, VOE, and choice goals. Finally, the data analysis procedures, including the statistical techniques applied to examine the relationships between the variables, are presented.

3.2 Research Design

3.2.1 Rationale for Choosing a Quantitative Approach

The investigation into the correlation between personality traits and career choice goals, mediated by Career Decision Making Self Efficacy (CDMSE) and Vocational Outcome Expectations (VOE), is grounded in established theoretical frameworks of personality psychology and social cognitive career theory of career psychology. This research employs a quantitative approach to explore these relationships by gathering numerical data from a sample of secondary school students

The quantitative approach in this study was essential to numerically represent and analyze data, facilitating the discovery of patterns and relationships between the key variables. Quantitative research is particularly well-suited to examining how different personality traits (e.g., conscientiousness, openness, extraversion, neuroticism, as well

as agreeableness) are related to career decision-making (CDM) processes and VOE. By using statistical techniques such as correlation, regression, and mediation analysis, the study aimed to understand both the direct relationships and the mediating roles of CDMSE and VOE in shaping students' career choice goals (Cohen et al., 2002).

There are several types of quantitative research designs, each serving different research objectives. The present study employed a descriptive and correlational research approach under the broad category of quantitative research design for analyzing the intricate relationships between personality traits, CDMSE, VOE, and career choice goals among secondary school students. This design is appropriate for investigating the direct as well as indirect effects of personality on career choice goals through mediating variables such as CDMSE and VOE. The use of a descriptive research design allowed for the systematic collection of data and analysis to identify patterns, relationships, and trends within the dataset (Creswell, 2008).

3.3 Sampling Design

3.3.1 Population

The population for the present investigation consisted of senior secondary school students (11th and 12th standard) in the state of Tripura. This group was chosen because the study aimed to explore how personality influences choice goals, with a focus on the mediating roles of CDMSE, and Outcome Expectations, or VOE, which are particularly relevant during the formative years of secondary education (Super, 1990; Ulas-Kilic et al., 2018). The purpose of the research was to capture a diverse sample, irrespective of the demographic and socioeconomic diversity of the student population.

3.3.2 Sampling Frame

The information of the number of schools from the eight districts of Tripura state forming the sampling frame for this research was collected from the SARAS website of Govt. of India. The total number of CBSE affiliated schools stood at 193. Applying the 10% condition of statistics which states that sample sizes should be no more than 10% of the population, we obtained 19 schools as the sampling frame for this study (<https://saras.cbse.gov.in/saras/AffiliatedList/ListOfSchdirReport>).



Fig.3.1 District Map of Tripura state/province of India

Table 3.1 Sampling Frame of the CBSE Affiliated School as Obtained from SARAS Portal, Govt. of India:

Sl. No.	District	Total Number of CBSE Affiliated Schools	10 % Condition of Statistics on the Total Schools
1	North Tripura	26	2.6
2	Unakoti	14	1.4
3	Dhalai	17	1.7
4	Khowai	13	1.3
5	West Tripura	72	7.2
6	Sepahijala	17	1.7
7	Gomati	17	1.7
8	South Tripura	17	1.7
	Total Schools	193	19.3

3.3.3. Sampling Technique

The investigation applied a stratified random sampling method for ensuring that students from different grades and genders are presented in the sample. This method facilitates the identification of subpopulations within the larger population, ensuring each subgroup is sufficiently represented in the sample, minimizing sampling bias and improves the generalizability of the findings from the sample to the population (Bryman, 2016).

This method entails segmenting the population of secondary school students into discrete subgroups or strata according to particular criteria (e.g., gender, age, or academic performance) and thereafter conducting random selection of participants from each stratum. In the present study, stratification helped capture a diverse group of students with varying personality traits, and levels of CDMSE, and VOE.

- **Stratification Criteria:** The population of secondary school students is divided into different strata (groups) based on key characteristics such as grade level, and gender.
- **Random Selection:** Within each stratum, students were randomly selected to ensure that the entire population's representative was the sample. Different steps involved in the random selection are:
 - **Identification of Strata:** The different subgroups (strata) within the population were determined, such as different grades (e.g., 11th and 12th) and gender (male, female).
 - **Proportional Allocation:** The sample size in the study was proportionally distributed among each stratum according to the number of boys and girls, without establishing a fixed percentage for either category within the population.
 - **Proportional Allocation:** The sample size in the study was proportionally distributed among each stratum according to the number of boys and girls, without establishing a fixed percentage for either category within the population.
- **Random Selection:** To randomly select district-wise schools for data collection, the 'random number generator' in Excel was used in this study.

Figure 3.2 illustrates the organizational structure of the stratas under stratified random sampling of the CBSE affiliated and administered secondary schools in the state of Tripura, categorized by district (DIST1 to DIST8) and the grade levels (Class XI and Class XII) within each district. Each class was further divided by gender (Boys and Girls). Thus the population from which the study's sample was to be taken from was represented by this hierarchical structure of sampling frame.

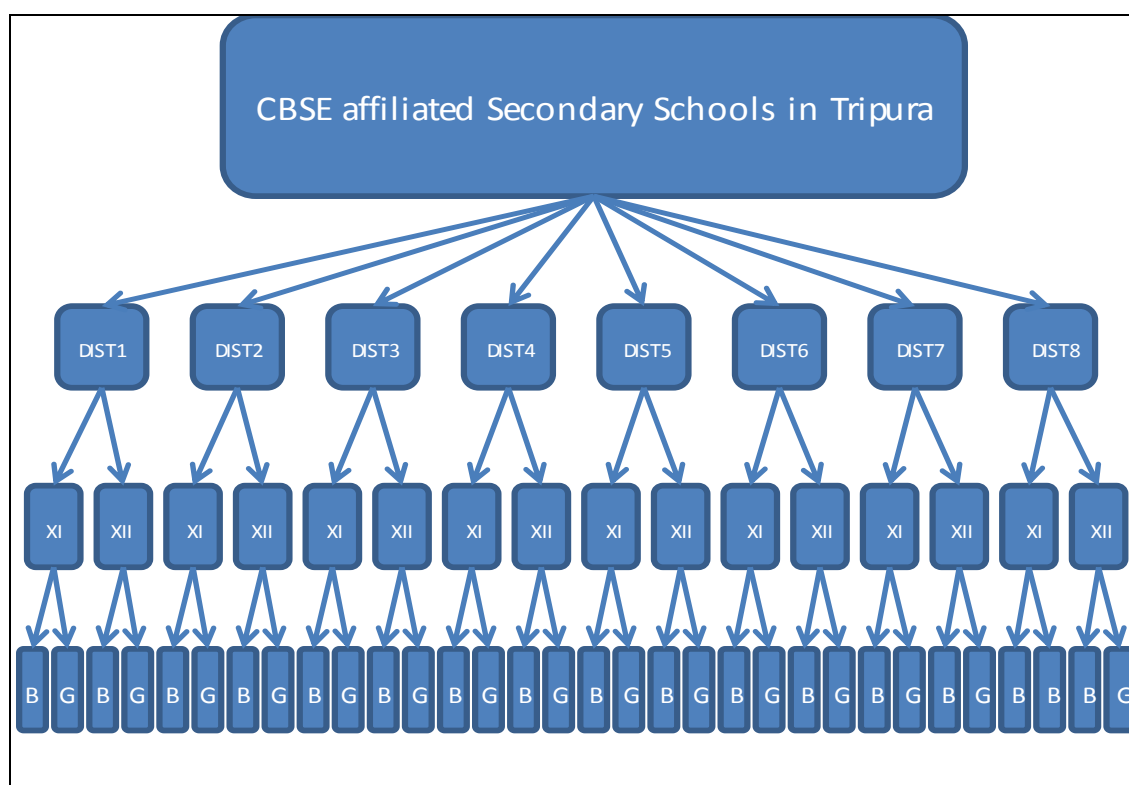


Fig.3.2 Distribution of Sample across CBSE administered Senior Secondary Schools in Tripura

3.3.4 Sampling Procedure

In the present research, the sampling procedure involved using Microsoft Excel's random number generator for selecting the sample. This method has been selected because of its accessibility, user-friendliness, and ability to generate truly random numbers.

3.3.4.1 Steps for Generating Random Samples

The following steps outline the procedure used to generate random samples from the population:

i. Sampling Frame Identification

The sampling frame was first listed in a single column in Excel. Each element of the sampling frame was assigned a unique identifier (ID), such as a numerical code starting from 1 up to n.

ii. Random Number Generation for Selecting the Sample School for Final Data Collection Visit

To generate random numbers corresponding to the final sample school, the “=RANDBETWEEN (Serial Number of First School, Serial Number of Last School)” function in Excel was utilized. A random number is thus generated that represents the school to visit finally in a district. This procedure ensured that every member of the sampling frame has an equal probability of selection.

Table 3.2: List of the CBSE affiliated Secondary Schools in Tripura Visited for Final Data Collection

Name of the District	Name of the School
North Tripura District	Golden Valley Higher Secondary School
Unakoti District	Pabiacherra Class XII School
Dhalai	Ambasa English Medium Model School
Khowai	Khowai Govt. English Medium Class XII School
West Tripura District	Henry Derozio H. S. School
Sepahijala	Saint Xavier’s H. S. School
Gomati	Goria Academy (Model)
South Tripura District	Belonia Govt. English Medium H. S. School

As shown in the above table, a total of 8 schools from 8 districts of Tripura were randomly selected for the final data collection in the study.

3.4 Sample

The study included a sample comprising of students of eight co-educational secondary schools (up to 12th grade) affiliated with the Central Board of Secondary Education (CBSE) across eight districts in Tripura selected randomly for data collection. The final total sample size was 568 (Boys = 286, and Girls = 282).

3.4.1 Inclusion Criteria of the Sample Subjects

- i. CBSE (An autonomous organization under the Indian government's Ministry of Education) affiliated Secondary school students in Tripura state, India.
- ii. Students from different grades or levels within the senior secondary school (grades 11-12) in Tripura state, India.
- iii. Both male and female students in Tripura state, India.

3.5 Data Collection

The process of data collection included collecting quantitative data using standardized questionnaires and scales. Instruments measuring personality traits (e.g., the Big Five Inventory or BFI), CDMSE Scale, and VOE were administered to the participants. The use of validated scales ensured the validity and reliability of the data. Questionnaires are a commonly used instrument in quantitative research because they facilitate the accumulation of a substantial quantity of data efficiently and are particularly effective for measuring psychological constructs such as personality and self-efficacy (DeVellis and Thorpe, 2021).

In the current investigation, information was gathered with survey questionnaires to gather information about students' personality traits, outcome expectations, CDMSE, and choice goals for senior school students of 11th and 12th graders of all categories and management affiliated with CBSE in Tripura.

3.5.1 Data Collection Procedure

- **Administration:** The permission to collect the final round of data from the CBSE affiliated schools of the Tripura State was taken from the Director, Directorate of Secondary Education, Govt. of Tripura, Agartala, West Tripura. The instruments were administered to secondary school students in a

classroom setting. Participants were given instructions on how to complete each scale.

- **Duration:** The total time required to complete all the scales was approximately 30-40 minutes.
- **Ethical Considerations:** Informed consent from the head of the institution was obtained on behalf of all participants and their guardians. Confidentiality and anonymity of the responses were ensured. The Institutional Ethics Committee (IEC) of Lovely Professional University approved the work through its reference number LPU/IEC-LPU/2024/2/19.

3.5.2 Data Collection Tools Used in the Study

In the study, the following scales were selected to comprehensively address the research objectives and provide reliable, valid, and nuanced data. Each scale was chosen based on its relevance, reliability, and applicability to the target population. Below is a detailed rationale for the inclusion of each instrument.

3.5.2.1 Personality Traits Inventory (BFI-44)

- **Purpose of the Tool in the Present Study**

In the current investigation, the researcher validated and purified the BFI-44 Scale, which originally consisted of 44 items, by reducing it to 27 items through exploratory factor analyses and confirmatory factor analyses (EFA and CFA) statistical techniques, following the methodological framework outlined by (John et al., 1991). This process aimed to enhance the scale's psychometric properties while preserving its theoretical integrity.

Personality traits are fundamental in understanding individual differences in behavior, preferences, and decision-making processes. The BFI-44 which measures the five broad personality dimensions (openness, neuroticism, agreeableness, extraversion, and conscientiousness), is essential for examining how these traits influence Career Decision Making Self Efficacy, Vocational Outcome Expectations and Choice Goals.

- **Justification for selection of the Tool**

1. **Comprehensive Framework:** The BFI-44 aligns with the Big Five Personality Theory, which is widely regarded as a comprehensive model for assessing personality (Costa Mastrascusa, 2023). The BFI-44 provides a

robust theoretical foundation depending on the Five-Factor Model of Personality.

2. **Reliability and Validity:** The inventory is globally familiar for its psychometric reliability and has been validated across various populations, including adolescents. The BFI-44 has demonstrated high reliability and validity across diverse populations, including adolescents.
3. **Ease of Administration:** Its concise format makes it suitable for senior secondary school students, ensuring accurate data collection without fatigue. Its concise 44-item structure is suitable for senior secondary school students, ensuring effective data collection without inducing respondent fatigue.
4. **Relevance to Career Studies:** Research demonstrates the influence of traits such as conscientiousness and openness on career-related decision-making, directly tying into the study objectives. Personality traits like conscientiousness and openness are directly linked to career planning, making this inventory a robust choice for the study's objectives.

3.5.2.2 Career Decision-Making Self-Efficacy (CDMSE) Scale

- **Purpose of the Tool in the Present Study**

The Career Decision Making Self Efficacy Scale developed by Javed and Khan, (2018) in India, which was created especially for late-adolescent students was selected in the present study. The original scale developmental process involved creating a preliminary scale with 27 items, refining it using a proportion agreement method to 26 items, and then conducting an EFA (Exploratory Factor Analysis) to confirm the final structure of 17 items clustered into four factors.

Justification for selection of the Tool:

1. **Key Variable:** CDMSE is a central construct in understanding how students approach career-related decisions, making it indispensable for the study.
2. **Theoretical Relevance:** Grounded in Bandura's self-efficacy theory, the construct is widely accepted in career development research.

3. **Suitability for Adolescents:** The CDMSE scale was developed for utilization with high school students, ensuring age-appropriate language and tasks.
4. **Predictive Value:** Research shows CDMSE as a construct strongly predicts career readiness and choice clarity, directly tying into career choice goals.

3.5.2.3 Vocational Outcome Expectations (VOE) Scale

- **Purpose of the Tool in the Present Study**

The revised VOE unidimensional scale developed by Metheny and McWhirter (2013) consisting of 12 items, was utilized to measure the secondary school students' career outcome expectations consisting of beliefs about the anticipated benefits of career pursuits, including personal satisfaction, financial stability, and social impact (Garcia, 2018).

Justification for Selection of the Tool

1. **Validated for Similar Populations:** The VOE scale has been successfully used in studies on adolescents, ensuring its appropriateness for secondary students.
2. **Practical Insights:** Insights from this scale help understand the motivational factors influencing career goals and related decisions.
3. **Validated Tool:** It has been widely used in studies involving adolescents, demonstrating its reliability in assessing vocational or career outcome expectations.
4. **Alignment with Study Goals:** This scale connects personal expectations with career aspirations, making it integral to understanding the factors affecting career choice goals and related decisions.

3.5.2.4 Career Choice Goals Scale

- **Purpose of the Tool in the Present Study**

The Career Choice Goals Scale, originally introduced by (Seibert et al., 2013) was utilized in this study and subjected to item validation and refinement using

ICVI/SCVI as well as EFA and CFA. As a result of these procedures, the scale was refined from its original 10 items to 8 items. This scale is employed to assess students' the clarity, ambition, and specificity of career-related goals.

Justification for Selection of the Tool:

1. **Focus on Outcomes:** This scale directly assesses the dependent variable of the study—career choice goals.
2. **Behavioral Link:** It links personality traits, self-efficacy, and vocational expectations with actual career aspirations, bridging the gap between theoretical constructs and observable outcomes.
3. **Developmental Relevance:** The scale captures the career goal-setting process at a critical developmental stage (senior secondary school).It captures students' career goals during a critical developmental phase, providing actionable insights for educators and policymakers.
4. **Empirical Validation:** The scale has been employed in similar studies and validated for use with adolescents, ensuring its relevance to the target population.

3.6 Scale Validation

Validating the scales used in the study is crucial for ensuring reliability, contextual relevance, and constructs accuracy. Validated scales produce consistent, meaningful results, ensuring that they measure the intended constructs: personality traits, CDMSE, and VOE—accurately. This enhances predictive accuracy, strengthens the credibility of findings, aligns with research objectives, and ensures ethical, reliable data collection, particularly in the context of senior secondary school students. Ultimately, it boosts the study's methodological rigor and contribution to career guidance research.

In the current study, out of the total four scales—Big Five Inventory Scale, CDMSE Scale, Vocational Outcome Expectation Scale, and Career Choice Goals Scale—the SCVI (Scale Content Validity Index) as well as ICVI (Item Content Validity Index) have been conducted for two specific scales: the Vocational Outcome Expectation Scale and the Career Choice Goals Scale. These indices were used to assess the

validity of these two scales in measuring the intended constructs, ensuring their reliability and relevance for the investigation. The items of Big Five Inventory were left out from content validation test owing to their multiple previous administrations in the Indian context studies (Kunnel John et al., 2019; Kumari and Sharma, 2016). The exercise of conducting content validity study of all the items of Career Decision Making Self Efficacy scale was already conducted by its developers Javed and Khan (2018) during their scale development on Indian students.

The items of the mentioned two tools of Vocational Outcome Expectation Scale, and Career Choice Goals Scale were shown to nine experts who rated each of the items on a scale of three, with the categories ranging from 1 = Useless to 3 = Essential. The proofs of the content validity exercise along with the credentials of the nine experts are presented in the appendix section of the thesis.

3.6.1 Estimation of Scale and Item Content Validity Index of Career Choice Goals Scale

Table 3.3 Item and Scale Content Validity Indices – Choice Goals Scale

Item	“Rat er 1	Rat er 2	Rat er 3	Rat er 4	Rat er 5	Rat er 6	Rat er 7	Rat er 8	Rat er 9	Agree ment	ICVI
I-1	3	3	3	3	3	3	3	3	3	9	1
I-2	3	3	3	3	3	3	3	3	1	8	0.889
I-3	3	3	2	3	3	2	3	2	1	5	0.555
I-4	3	3	2	3	3	2	3	2	1	5	0.555
I-5	3	3	3	3	3	3	3	3	1	8	0.889
I-6	3	3	3	3	3	3	3	3	3	9	1
I-7	3	3	3	3	3	3	3	2	3	8	0.889
I-8	3	3	3	3	3	3	3	2	3	8	0.889
I-9	3	3	3	3	3	3	3	3	3	9	1
I-10	3	3	3	3	3	3	3	3	3	9	1

Table 3.4 Scale Content Validity Indices (SCVI) – Choice Goals Scale

Scale	Metric	Value
SCVI-Average	“Scale Content Validity Index-Average	0.866
SCVI-UA	Scale Content Validity Index-UA”	0.8

Table 3.5 Content Validity Benchmarks

Rating	Description
1	Useless
2	Useful, but not required
3	Essential

Explanation of the Validation Process: In the above table, the pre-existing scales of Career Choice Goals were validated through expert evaluations, using a structured process involving multiple raters to assess the content validity of each item. The ICVI and SCVI were computed to determine the appropriateness and relevance of the objects involved in the tools used for measuring the key constructs of the study.

- **Item Content Validity Index (ICVI)**

- The ICVI represents the proportion of raters who agree that a particular item is relevant and appropriate for measuring the intended construct. The rating scale used for evaluation ranged from 1 (very poor) to 3 (excellent).
- As seen in the table, items with an ICVI above 0.7 are considered to be valid, indicating that the majority of raters agree that the item is relevant and reflects the construct it is planned for the calculation.
- For instance, Item 1 has an ICVI of 1, which suggests it is highly valid, as all raters agreed on its relevance. Similarly, Item 6 also achieved an ICVI of 1, indicating it is highly relevant according to the experts' assessments.
- The ICVI of Items 3 and 4 is 0.555. This score suggests that since the acceptable threshold for content validity is typically above 0.7, these items do not meet the standard for strong content validity.

- **Scale Content Validity Index (SCVI)**

- The SCVI is average of the ICVI scores across all items in the scale, providing a general measure of the scale's overall content validity.
- In this study, the SCVI (Average) is 0.866, which falls into the "Good" category based on the benchmark provided. This suggests that the scale as a whole has a strong content validity, meaning that it is a well-constructed tool that effectively measures the intended constructs with a high degree of relevance and appropriateness.

Interpretation of Results: A high SCVI (above 0.8) indicates that the scale is content-valid, meaning the items used in the scale are highly relevant to the study's objectives. The ICVI values for most items are above 0.7, which aligns with the accepted threshold for content validity, confirming that the items in the scales used for the study are appropriate and accurately reflect the constructs being measured. The scale was validated with expert raters to ensure that they accurately and meaningfully measured the key variables in the study. The calculated ICVI and SCVI values indicate strong content validity, affirming that the scales used are relevant, reliable, and appropriate for the target population of senior secondary school students. This validation process enhances the methodological rigor of the study and supports the reliability of the findings. Items 3 and 4 in the validation table have ICVI values of 0.555, which indicate relatively low content validity compared to the other items in the scale.

3.6.2 Estimation of Scale and Item Content Validity Index of Vocational Outcome Expectations

Table 3.6 Item and Scale Content Validity Indices (ICVI and SCVI)

Item	“Rat er 1	Rat er 2	Rat er 3	Rat er 4	Rat er 5	Rat er 6	Rat er 7	Rat er 8	Rat er 9	Agree ment	ICVI
I-1	3	3	3	3	3	3	3	3	3	9	1.000
I-2	3	3	3	3	3	3	3	3	3	9	1.000
I-3	3	3	3	3	3	3	3	3	3	9	1.000
I-4	3	3	3	3	3	3	3	3	3	9	1.000

I-5	3	3	3	3	3	3	3	3	3	9	1.000
I-6	3	3	3	3	3	3	3	3	3	9	1.000
I-7	3	3	3	3	3	3	3	3	3	9	1.000
I-8	3	3	3	3	3	3	3	3	3	9	1.000
I-9	3	3	3	3	3	3	3	3''	1	8	0.889
I-10	3	3	3	3	3	3	3	3	3	9	1.000
I-11	3	3	3	3	2	3	3	2	1	6	0.667
I-12	3	3	3	3	2	2	3	2	3	6	0.667

Table 3.7 Scale Content Validity Indices (SCVI)

Metric	Value
SCVI-I	0.935185
SCVI (Average)	0.935185

Table 3.8 Benchmarks for Validity Indices

Rating	Description
1	Useless
2	Useful, but not required
3	Essential

Explanation of the Validation Process: The results presented in the table indicate the ICVI and SCVI for the VOE Scale.

1. ICVI (Item Content Validity Index)

- **ICVI for Items 1-8:** All of these items have an ICVI of 1, indicating perfect agreement among the raters about the importance of these items to the concept being measured. This means that all raters found these items to be highly relevant for measuring VOE, which is ideal.
- **ICVI for Item 9:** This item has an ICVI of 0.8889, which is still acceptable since it is above the threshold of 0.70. It indicates a slight

disagreement among the raters but is still considered valid in terms of content relevance.

- **ICVI for Item 11 and Item 12:** The ICVI of 0.6667 for both of these items is less than the permissible cut off of 0.70. This shows that these items have poor content validity and may require revision. The lower ICVI scores suggest that the raters did not find these items relevant or appropriate for measuring the construct of VOE.

2. SCVI (Scale Content Validity Index)

- **SCVI-I (Individual Item Agreement):** The SCVI-I value appears to be 1, which indicates that the individual items, on average, are highly consistent in their relevance ratings across all raters.
- **SCVI (Average):** The average SCVI for the scale is 0.9352, which is notably greater than the acceptable threshold which is 0.80. This indicates that, overall, the scale has excellent content validity. It means that the scale as a whole is deemed highly relevant for measuring VOE by the group of raters.

Interpretation of the Results: Items 1-8 exhibit high relevance and strong content validity as indicated by an ICVI of 1. Item 9 has an acceptable ICVI of 0.8889 but reflects some disagreement among raters; minor revisions may enhance its clarity or relevance. Items 11 and 12 require significant improvement as the ICVI of 0.6667 suggests they are insufficiently aligned with the construct of VOE, warranting revision, replacement, or removal. The average SCVI of 0.9352 demonstrates that the scale as a whole is highly valid and appropriate for measuring VOE, with the majority of items effectively aligning with the study's objectives.

The VOE Scale, overall, demonstrates high content validity with an average SCVI of 0.9352, indicating strong support for its relevance. However, Items 11 and 12 should be revisited due to their low ICVI scores (0.6667), as these items are not considered highly relevant by the raters for improving their validity and align them better with the scale's objectives.

3.6.3. Estimation of Construct Validity and Reliability Analysis of the Tools:

Estimation of Construct Validity of Big Five Inventory 44 (BFI-44) and its Purification:

Based on the reporting of well-established five factor model of Big Five Inventory in India specific studies (Schmitt et al., 2007; Kunnel John et al., 2019) and the rationale given by Kim et al., (2016), only confirmatory factor analysis (CFA) was conducted in the present study on this personality scale using the openware JAMOVİ (Jamovi Project, 2024) on a sample size of 544 secondary school students of Tripura state. Items with poor factor loadings below 0.3 were removed (Heir et al., 2010), leaving 27 items post purification.

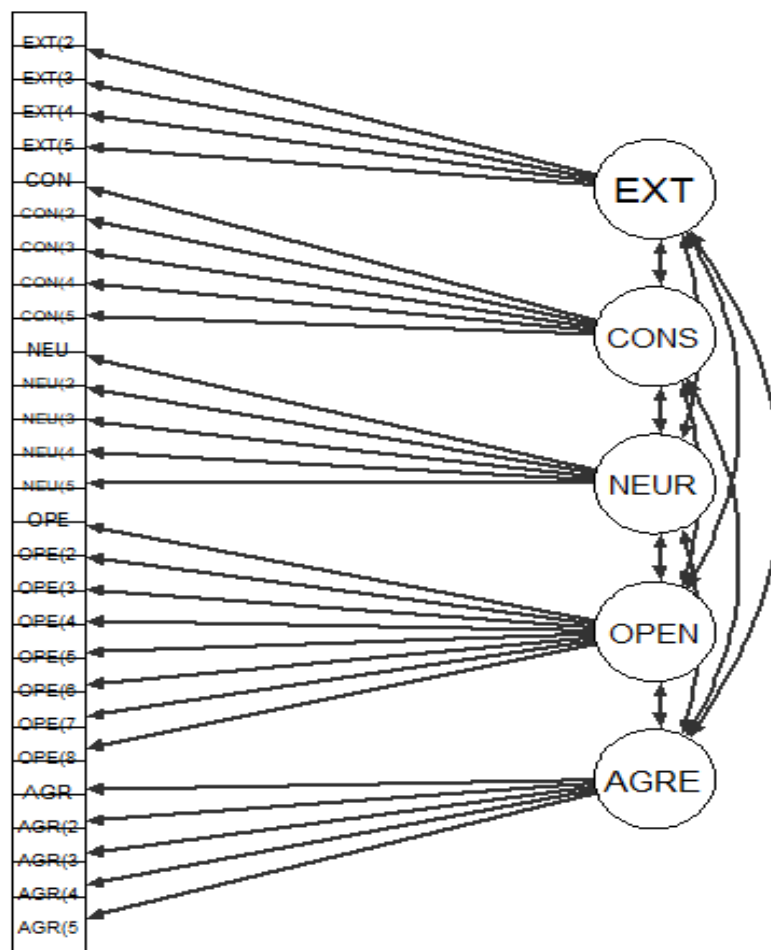


Fig. 3.3 Path Diagram of the Factor Structure of BFI-44

**Table 3.9 Estimation of the Factor Loading of the Confirmatory Factor Analysis
(n=544) – BFI-44**

Sl. No.	Factor	Indicator	Estimate	Sig. (P-value)
1	Extroversion	EXT(2)	0.696	< 0.001
2		EXT(3)	0.608	< 0.001
3		EXT(4)	0.624	< 0.001
4		EXT(5)	0.543	< 0.001
5	Conscientiousness	CON(1)	0.445	< 0.001
6		CON(2)	0.587	< 0.001
7		CON(3)	0.607	< 0.001
8		CON(4)	0.686	< 0.001
9		CON(5)	0.563	< 0.001
10	Neuroticism	NEU(1)	0.392	< 0.001
11		NEU(2)	0.571	< 0.001
12		NEU(3)	0.817	< 0.001
13		NEU(4)	0.634	< 0.001
14		NEU(5)	0.492	< 0.001
15	Openness	OPE(1)	0.645	< 0.001
16		OPE(2)	0.593	< 0.001
17		OPE(3)	0.664	< 0.001
18		OPE(4)	0.688	< 0.001
19		OPE(5)	0.445	< 0.001
20		OPE(6)	0.622	< 0.001
21		OPE(7)	0.391	< 0.001
22		OPE(8)	0.540	< 0.001
23	Agreeableness	AGR(1)	0.691	< 0.001
24		AGR(2)	0.684	< 0.001
25		AGR(3)	0.630	< 0.001
26		AGR(4)	0.761	< 0.001
27		AGR(5)	0.707	< 0.001

Table 3.10 Goodness of Fit Estimates:

Estimands	CMIN/DF	CFI	TLI	RMSEA	SRMR	Remark on Model Fit
Benchmarks	< 3	>0.9	>0.9	<0.08	<0.08	Moderate
Estimates	1.89	0.883	0.869	0.0537	0.0529	

Interpretation: The model demonstrates moderate fit between the hypothesized five factor structure and the empirical data based on key metrics. The RMSEA (Root Mean Square Error of Approximation) of 0.0537 and the SRMR (Standardized Root Mean Square Residual) of 0.0529 are within acceptable thresholds. However, the Tucker-Lewis Index (TLI) (0.869) as well as the Comparative Fit Index (CFI) (0.883) indicates room for improvement. The Chi-Square min/df statistic (1.89, $p < .001$) is significant, likely influenced by the large sample size.

Based on the recommendations mentioned in Cheung et al., (2024) on the reporting of construct validity using Average Variance Explained (AVE) and reliability using composite reliability in Structural Equation Modelling (SEM) studies, the following findings are discussed below:

Table 3.11 Estimation of Convergent Validity through Average Variance Explained and Reliability Analysis

Sl. No.	Factor	Average Variance Explained (AVE) – (> 0.5, Fornell and Larcker (1981))	Composite Reliability (CR) – (>0.7, Hair et al., 2009)	Cronbach's Alpha Reliability	McDonald's Omega Reliability
1	Extroversion	0.385	0.713	0.655	0.661
2	Conscientiousness	0.340	0.716	0.672	0.680
3	Neuroticism	0.358	0.725	0.633	0.644
4	Openness	0.339	0.799	0.766	0.774
5	Agreeableness	0.484	0.824	0.793	0.795

Table 3.12 Estimation of Discriminant Validity through Factor Covariances:

Factor	Extroversion	Conscientiousness	Neuroticism	Openness	Agreeableness
Extroversion	1.000	0.983**	0.455**	0.864**	0.775**
Conscientiousness		1.000	0.542**	0.824**	0.872**
Neuroticism			1.000	0.712**	0.649**
Openness				1.000	0.934**
Agreeableness					1.000

Interpretation: Convergent validity is supported by strong positive relationships between related traits, such as Conscientiousness and Extroversion (0.983) and Openness and Agreeableness (0.934), both statistically significant at $p < .001$. These results indicate consistent measurement of similar factors of a robust construct. Discriminant validity is confirmed by weaker relationships between distinct traits, such as Extroversion and Neuroticism (0.455, $p < .001$), highlighting conceptual distinctions. However, the average variance explained (AVE) for all the factors is low below its threshold of 0.5 as the recommendations of Fornell and Larcker (1981). The reliability analysis of the factors indicate strong internal consistency between the items while measuring their respective factors since these estimates are way above the acceptable threshold of 0.6 (Griethuijsen et al., 2014; Taber, 2018) for reliability estimation as shown by Composite reliability and McDonald's Omega reliability values of the five factors.

3.6.4 Estimation of Construct Validity and Reliability Analysis of the Career Decision Making Self Efficacy Tool and its Purification

Since Javed and Khan (2018) conducted the exploratory factor analysis (EFA) to develop their four factors 17 items scale in an Indian study, only confirmatory factor analysis (CFA) was conducted in the present study on this career psychology scale using the openware JAMOEVI (Jamovi Project, 2024) establish the four factor structure of the CDMSE construct on a sample size of 231 secondary school students of Tripura state. All items of the original scale performed well, not requiring any purification.

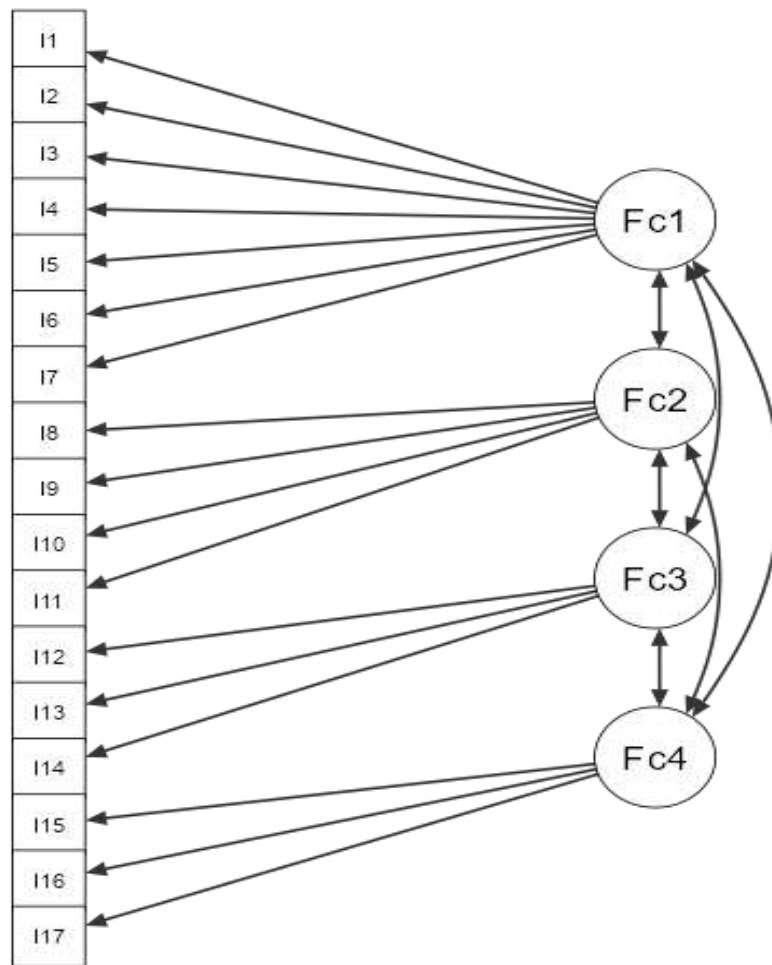


Fig. 3.4 Path Diagram of the Factor Structure of CDMSE-17

Table 3.13 Estimation of the Factor Loading of the Retained Items of CDMSE-17 Scale during Confirmatory Factor Analysis (n=231)

Sl. No.	Factor	Indicator	Estimate	Sig. (P-value)
1	Absolute Belief in Career Decision	Item 14	0.821	< 0.001
2		Item 15	0.878	< 0.001
3		Item 16	0.753	< 0.001
4		Item 17	0.791	< 0.001
5		Item 18	0.788	< 0.001
6		Item 23	0.761	< 0.001

7		Item 26	0.800	< 0.001
5	Problem Solving Conviction	Item 12	0.809	< 0.001
6		Item 20	0.780	< 0.001
7		Item 24	0.939	< 0.001
8		Item 25	0.832	< 0.001
10	Career Decision Confidence	Item 1	0.824	< 0.001
11		Item 2	0.694	< 0.001
12		Item 7	0.845	< 0.001
15	Career Decision Prophecy	Item 4	0.883	< 0.001
16		Item 5	0.860	< 0.001
17		Item 22	0.738	< 0.001

Table 3.14 Goodness of Fit Estimates:

Estimands	CMIN/DF	CFI	TLI	RMSEA	SRMR	Remark on Model Fit
Benchmarks	< 3	>0.9	>0.9	<0.08	<0.08	Good
Estimates	3.20	0.903	0.884	0.0977	0.0483	

Interpretation: The model demonstrates good fit between the hypothesized four factor structure and the empirical data based on key metrics. The RMSEA (Root Mean Square Error of Approximation) of 0.0977 is above the acceptable limit and the SRMR (Standardized Root Mean Square Residual) of 0.0483 is within acceptable threshold. The Tucker-Lewis Index (TLI) (0.884) indicates room for improvement. However, the Comparative Fit Index (CFI) (0.903) is acceptable. The Chi-Square min/df statistic (3.20, $p < .001$) is slight above the benchmark and is significant, likely influenced by the large sample size.

Based on the recommendations of Cheung et al., (2024) on the reporting of construct validity using Average Variance Explained (AVE) and reliability using composite reliability in Structural Equation Modelling (SEM) studies, the following findings are discussed below:

Table 3.15 Estimation of Convergent Validity through Average Variance Explained and Reliability Analysis

Sl. No.	Factor	Average Variance Explained (AVE) – (>0.5, Fornell and Larcker (1981))	Composite Reliability (CR) – (>0.7, Hair et al., 2009)	Cronbach's Alpha Reliability	McDonald's Omega Reliability
1	Absolute Belief in Career Decision	0.640	0.925	0.899	0.900
2	Problem Solving Conviction	0.709	0.907	0.828	0.831
3	Career Decision Confidence	0.625	0.832	0.777	0.779
4	Career Decision Prophecy	0.688	0.868	0.827	0.828

Table 3.16 Estimation of Discriminant Validity through Factor Covariances:

	Absolute Belief in Career Decision	Problem Solving Conviction	Career Decision Confidence	Career Decision Prophecy
Absolute Belief in Career Decision	1.000	0.915**	0.925**	0.947**
Problem Solving Conviction		1.000	0.968**	0.860**
Career Decision Confidence			1.000	0.908**
Career Decision Prophecy				1.000

Interpretation: Convergent validity is supported by strong positive relationships between related factors which are statistically highly significant at $p < .001$. These results indicate consistent measurement of similar factors of a robust construct. Discriminant validity does not apply on this construct, composed of highly related factors as shown by the strong covariance estimates among them. The average variance explained (AVE) for all the factors is way above its threshold of 0.5 as the recommendations of Fornell and Larcker (1981). The reliability analysis of the factors indicate strong internal consistency between the items while measuring their respective factors since these estimates are way above the acceptable threshold of 0.6 (Griethuijsen et al., 2014; Taber, 2018) for reliability estimation as shown by Composite reliability and McDonald's Omega reliability values of the four factors.

3.6.5. Validation of Revised Vocational Outcome Expectations (VOE-R) Scale

According to Metheny and McWhirter (2013), the original scale of Vocational outcome expectations developed by McWhirter, Rasheed and Crothers (2000) consisted of six items alone to measure the “*career outcome expectations*” dimension of outcome expectations in with Bandura's theory (1986). However, owing to the criticism presented by Fouad and Guillen (2006) on the limitations of the scale in measuring outcome expectations construct, six additional items belonging to the dimension of “*outcomes related to career decision making process*” were added into the scale, comprising its revised version, for high school students.

An exploratory factor analysis (EFA) study was conducted on a sample size of 194 secondary school students.

Table 3.17 Exploratory Factor “Analysis (Trial-1) - Revised Vocational Outcomes Expectation Scale

Item	Factor Loading		Uniqueness
	Factor 1	Factor 2	
9	0.850		0.542
11	0.554		0.645
4	0.533		0.674
8	0.522		0.632
7	0.458		0.612

6	0.430	0.333	0.493
10	0.419	0.348	0.489
3		0.825	0.450
1		0.671	0.639
2		0.643	0.597
5		0.428	0.695
12		0.377	0.697

Explanation of Exploratory Factor Analysis: A two-factor structure was discovered by the EFA employing promax rotation and the minimal residual extraction approach. 20.2% of the variance was described by Factor 1, and 20.1% by Factor 2 including a cumulative variance of 40.3%. Factor loadings were moderate to high, with item 4 and item 12 displaying split loading. Inter-factor correlation was strong at 0.734, indicating a related but distinct factor structure. Barlett's test of Sphericity ($\chi^2 = 733$, $df = 66$, $p < .001$) confirmed factorability, and the KMO measure of sampling adequacy was excellent at 0.884, with item-level MSAs ranging from 0.851 to 0.931.

A two-factor solution was supported by the initial eigenvalues, which were 2.42 for the first component and 2.41 for the second, confirming the adequacy of the two-factor structure. Owing to the display of split loading shown by item 4 and item 12, they were deleted and trail 2 of factor extraction was conducted.

Table 3.18 Exploratory Factor Analysis (Trial-2) - Revised Vocational Outcomes Expectation Scale

Item	Factor Loading		Uniqueness
	Factor 1	Factor 2	
3	0.835		0.447
2	0.691		0.570
1	0.573		0.685
5	0.424		0.683
9		0.783	0.590
11		0.606	0.608
8		0.526	0.649
6	0.334	0.447	0.474
10	0.348	0.426	0.484
7		0.418	0.618

Explanation of Exploratory Factor Analysis: A two-factor structure was retained in the second run as well on employing promax rotation and the minimal residual extraction approach. 21.8% of the variance was described by Factor 1, and 20.1% by Factor 2 including a cumulative variance of 41.93%. Factor loadings were moderate to high, with the items 1,2,3,5 and 6 loading on factor 1 and the items 7,8,9,10 and 11 loading on the second factor. Inter-factor correlation was strong at 0.719, indicating a related but distinct factor structure. Barlett's test of Sphericity ($\chi^2 = 590$, $df = 45$, $p < .001$) confirmed factorability, and the KMO measure of sampling adequacy was excellent at 0.867, with item-level MSAs ranging from 0.830 to 0.921.

A two-factor solution was supported by the initial eigenvalues, which were 2.18 for the first component and 2.01 for the second, confirming the adequacy of the two-factor structure.

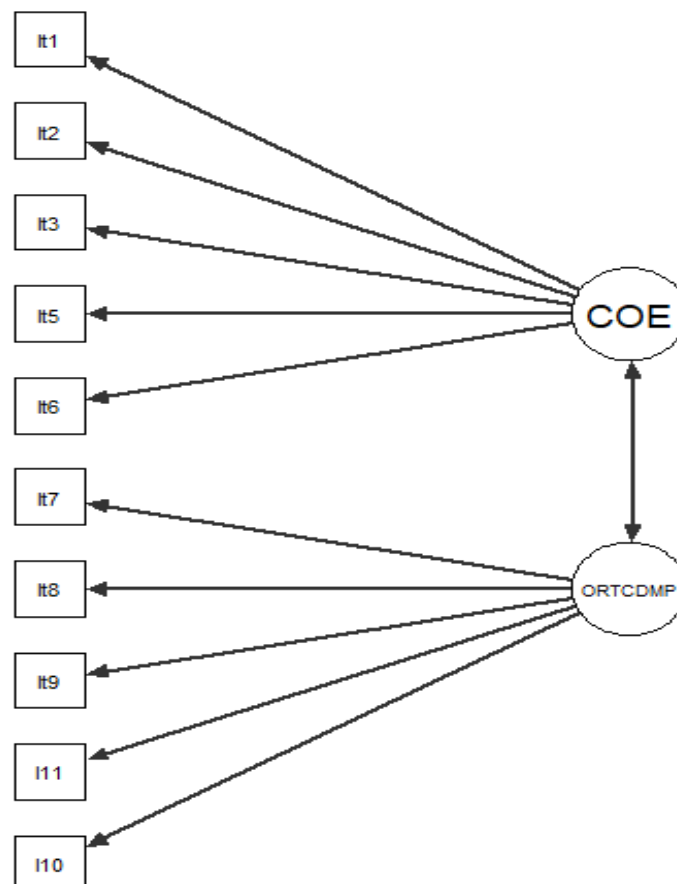


Fig. 3.5 Path Diagram of the Factor Structure of Revised Vocational Outcomes Expectation Scale:

Table 3.19 Estimation of the Factor Loading of the Revised Vocational Outcomes Expectation Scale during Confirmatory Factor Analysis (n=217)

Sl. No.	Factor	Indicator	Estimate	Sig. (P-value)
1	Career outcome expectations	Item 1	0.751	< 0.001
2		Item 2	0.812	< 0.001
3		Item 3	0.824	< 0.001
4		Item 5	0.730	< 0.001
5		Item 6	0.777	< 0.001
6	Outcomes related to career decision making process	Item 7	0.792	< 0.001
7		Item 8	0.780	< 0.001
8		Item 9	0.784	< 0.001
9		Item 10	0.819	< 0.001
10		Item 11	0.829	< 0.001

Table 3.20 Goodness of Fit Estimates:

Estimands	CMIN/DF	CFI	TLI	RMSEA	SRMR	Remark on Model Fit
Benchmarks	< 3	>0.9	>0.9	<0.08	<0.08	Very Good
Estimates	2.88	0.963	0.950	0.0932	0.0292	

Interpretation: The model demonstrates very good fit between the hypothesized two factors structure and the empirical data based on key metrics. The RMSEA (Root Mean Square Error of Approximation) of 0.0977 is above the acceptable limit and the SRMR (Standardized Root Mean Square Residual) of 0.0292 is well within acceptable threshold. The estimates of Tucker-Lewis Index (TLI) (0.950) and the Comparative Fit Index (CFI) (0.963) are extremely acceptable. The Chi-Square min/df statistic (2.88, $p < .001$) is desirably slight less the benchmark and is significant, likely influenced by the large sample size.

Based on the recommendations of Cheung et al., (2024) on the reporting of construct validity using Average Variance Explained (AVE) and reliability using composite reliability in Structural Equation Modelling (SEM) studies, the following findings are discussed below:

Table 3.21 Estimation of Convergent Validity through Average Variance Explained and Reliability Analysis:

Sl.No.	Factor	Average Variance Explained (AVE) – (> 0.5, Fornell and Larcker (1981))	Composite Reliability (CR) – (>0.7, Hair et al., 2009)	Cronbach's Alpha Reliability	McDonald's Omega Reliability
1	Career outcome expectations	0.608	0.885	0.763	0.767
2	Outcomes related to career decision making process	0.642	0.899	0.757	0.758

Table 3.22 Estimation of Discriminant Validity through Factor Covariances:

	Absolute Belief in Career Decision	Problem Solving Conviction
Career outcome expectations	1.000	0.984**
Outcomes related to career decision making process		1.000

Interpretation: Convergent validity is supported by strong positive relationships between the two related factors which are statistically highly significant at $p < .001$. These results indicate consistent measurement of similar factors of a robust construct. Discriminant validity does not apply on this construct, composed of two highly related factors as shown by the strong covariance estimates among them. The average

variance explained (AVE) for all the factors is way above its threshold of 0.5 as the recommendations of Fornell and Larcker (1981). The reliability analysis of the factors indicate strong internal consistency between the items while measuring their respective factors since these estimates are way above the acceptable threshold of 0.6 (Griethuijsen et al., 2014; Taber, 2018) for reliability estimation as shown by Composite reliability and McDonald's Omega reliability values of the two factors.

3.6.6 Validation of Career Choice Goals Scale

In a latest doctoral study, Greco (2016) used a 15 items tool to measure career goals, comprising of the three dimensions of intrinsic goals, extrinsic goals and status related goals. The third dimension was the investigator's conception. The 10 items of this scale belonged to the scale developed by Seibert et al., (2013) comprising of two unrelated dimensions, namely, intrinsic and extrinsic goals, and were theoretically grounded on the works of Deci and Ryan (2000) on goal content theories. Hence, the present study considered the 10 items of Seibert et al., (2013) scale (Intrinsic - Items 1, 4, 5, 6, 8; Extrinsic – Items 9, 10, 11, 12, 13) from the 15 items scale of Greco (2016) for validation in the Indian context. Though two items scored poorly during content validity estimation by the nine experts, they were retained and included in the rigorous factor extraction and validation exercises using Exploratory factor analysis (EFA) conducted on sample size of 180 subjects and Confirmatory factor analysis (CFA) conducted on a sample size of 174 subjects respectively.

Table 3.23 Exploratory Factor Analysis (Trial-1) - Career Choice Goals Scale

Item	Factor Loading		Uniqueness
	Factor 1	Factor 2	
12	0.724		0.457
9	0.670		0.539
10	0.660		0.534
13	0.574		0.600
5	0.421	0.322	0.719
6	0.396		0.777
4		0.871	0.241
8		0.472	0.747
11		0.417	0.755
1		0.362	0.774

Explanation of Exploratory Factor Analysis (Trial-1): With 38.6% of cumulative variance, the EFA identified 2 factors, explaining 22.7% and 15.9% of the variance for Minimum residual extraction method was used in combination with a varimax rotation. The inter-factor correlation was 0.00, indicating no relationship between the factors as conceived by Deci and Ryan (2000) for intrinsic and extrinsic career goals. The Barlett's test of sphericity BTS ($\chi^2 = 415$, $df = 45$, $p < .001$) confirmed the factorability of the data. The sampling adequacy KMO measure was strong at 0.809, with item-level MSA values varying from 0.673-0.891, indicating sufficient sampling adequacy for all individual items.

However, item 6 and item 11 displayed split loading and they were deleted from further analysis. The technique was run for second trail.

Table 3.24 Exploratory Factor Analysis (Trial-2) - Career Choice Goals Scale

Item	Factor Loading		Uniqueness
	Factor 1	Factor 2	
12	0.692		0.501
9	0.672		0.540
10	0.671		0.520
13	0.580	0.326	0.557
5	0.406	0.373	0.696
4		0.757	0.425
8		0.481	0.746
1		0.421	0.738

Explanation of Exploratory Factor Analysis (Trial-2): The EFA identified 2 factors, explaining 16.1% and 24.9% of the variance, with a cumulative variance of 41.0%. Items 1, 4, 5 and 8 loaded on first factor and the items 9, 10, 12 and 13 loaded on the second factor. The inter-factor correlation was 0.00, indicating no relationship between the two intrinsic and extrinsic career choice goal factors as mentioned in the original study (Seibert et al., 2013). BTS ($\chi^2 = 312$, $df = 28$, $p < .001$) confirmed the factorability of the data. Additionally, the sampling adequacy KMO measure was strong at 0.818, with item-level MSAs ranging from 0.715 to 0.868, indicating sufficient sampling adequacy for all items.

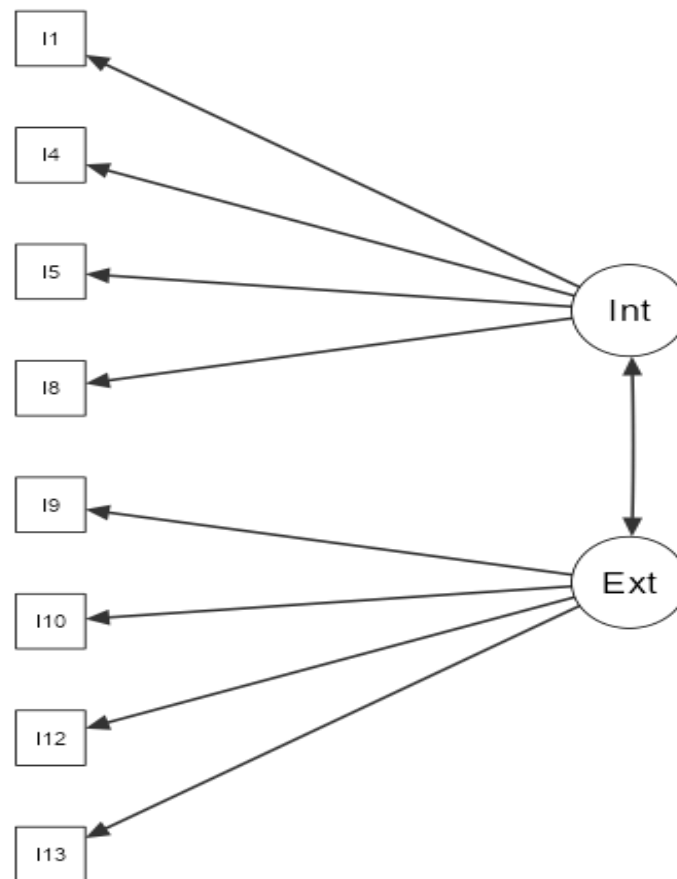


Fig. 3.6 Path Diagram of the Factor Structure of Career Choice Goals Scale

Table 3.25 Estimation of the Factor Loading of the Career Choice Goals Scale during Confirmatory Factor Analysis (n=174)

Sl. No.	Factor	Indicator	Estimate	Sig. (P-value)
1	Intrinsic	1	0.604	< 0.001
2		4	0.478	< 0.001
3		5	0.429	< 0.001
4		8	0.668	< 0.001
6	Extrinsic	9	0.672	< 0.001
7		10	0.722	< 0.001
8		12	0.753	< 0.001
9		13	0.698	< 0.001

Table 3.26 Goodness of Fit Estimates:

Estimands	CMIN/DF	CFI	TLI	RMSEA	SRMR	Remark on Model Fit
Benchmarks	< 3	>0.9	>0.9	<0.08	<0.08	Good
Estimates	2.47	0.925	0.889	0.0921	0.0555	

Interpretation: The model demonstrates good fit between the hypothesized four factor structure and the empirical data based on key metrics. The RMSEA (Root Mean Square Error of Approximation) of 0.0921 is above the acceptable limit and the SRMR (Standardized Root Mean Square Residual) of 0.0555 is within acceptable threshold. The Tucker-Lewis Index (TLI) (0.889) indicates room for improvement. However, the Comparative Fit Index (CFI) (0.925) is acceptable. The Chi-Square min/df statistic (2.47, $p < .001$) is slight above the benchmark and is significant, likely influenced by the large sample size.

Based on the recommendations of Cheung et al., (2024) on the reporting of construct validity using Average Variance Explained (AVE) and reliability using composite reliability in Structural Equation Modelling (SEM) studies, the following findings are discussed below:

Table 3.27 Estimation of Convergent Validity through Average Variance Explained and Reliability Analysis:

Sl.No.	Factor	Average Variance Explained (AVE) – (> 0.5, Fornell and Larcker (1981))	Composite Reliability (CR) – (>0.7, Hair et al., 2009)	Cronbach's Alpha Reliability	McDonald's Omega Reliability
1	Intrinsic	0.260	0.581	0.624	0.629
2	Extrinsic	0.461	0.773	0.771	0.773

Table 3.28 Estimation of Discriminant Validity through Factor Covariances:

	Intrinsic	Extrinsic
Intrinsic	1.000	1.06**
Extrinsic		1.000

Interpretation: The average variance explained (AVE) for the two factors is below its threshold of 0.5 as the recommendations of Fornell and Larcker (1981). However, the reliability analysis of the factors indicate fairly good internal consistency between the items while measuring their respective factors since these estimates are above the acceptable threshold of 0.6 (Griethuijsen et al., 2014; Taber, 2018) for reliability estimation as shown by Composite reliability and McDonald's Omega reliability values of the two factors. Discriminant validity at 1.06 ($p < 0.01$) indicates the construct is composed of two highly unrelated factors.

3.7 Statistical Technique Employed for Data Analysis

To investigate the relationships between personality traits, CDMSE, VOE, and career choice goals, various statistical techniques were applied. Along with descriptive statistics, correlational, regression and mediation analysis were employed in the research to examine the relationships between personality traits, CDMSE, VOE, as well as career choice goals towards the attainment of the research objectives.

1. **Descriptive Statistics:** Key properties of the sample were measured using the measures of central tendency, dispersion and asymmetry through the estimands of mean, standard deviation, skewness and kurtosis under descriptive statistics. This gives an outline of participants' responses to personality traits, CDMSE, VOE, and career choice goals, offering insights into the data's distribution and nature (Hassan, 2024).
2. **Correlation Analysis:** To evaluate the direction and intensity of the correlations among personality traits, CDMSE, and VOE, Pearson's correlation coefficients were computed. This analysis helped identify potential associations between the variables and provided a basis for further analyses like regression or mediation (J. Cohen et al., 2013).

3. **Regression Analysis:** Multiple and Simple regression analyses were performed to examine the predictive power of personality traits, CDMSE, and VOE on career choice goals. These models revealed the extent to which each variable influenced career choice goals, offering insights into their relative contributions (Field, 2024).
4. **Mediation Analysis:** Mediation analysis explored whether CDMSE and VOE mediated the relationship between career choice goals and personality traits. This helped identify the indirect effects and mechanisms underlying the relationships, providing a deeper understanding of how these variables interact (Preacher and Hayes, 2008; Sharma, 2021).

CHAPTER – IV

DATA ANALYSIS AND INTERPRETATIONS

4.1 Introduction

The present section investigates within connection between choosing career goals and personality features among senior secondary school students, focusing on the mediating roles of CDMSE (Career Decision-Making Self-Efficacy) and OE (Outcome Expectations). Descriptive statistics had become utilized to give a summary of the sample's attributes, including key metrics such as mean, median, standard deviation, and range, helping to outline the data's variability, central patterns, and distribution. Correlation as well as regression studies revealed the direction and intensity of the connections between personality traits, choice goals, CDMSE, and OE, quantifying the impact of personality traits on choice goals and examining their direct effects. Mediation analysis was employed to explore the indirect effects of personality traits on choice goals through CDMSE and OE, revealing how these mediators influence the connection between personality and choosing a career, and shedding light on the mechanisms that drive students' career choices (Alabi et al., 2023; Bokani Naomi Choveaux and Ying Leng, 2024); Zhou et al., 2024).

The chapter provides a systematic analysis of the data.

4.2 Descriptive Analysis

4.2.1 Descriptive analysis of demographical variable

4.3 Correlation Analysis

4.3.1 Personality and Choice Goals in secondary school students

4.3.2 Personality and Career Decision Making Self-Efficacy in secondary school students

4.3.3 Career Decision Making Self-Efficacy and Choice Goals in secondary school students

4.3.4 Personality and Outcome Expectations in secondary school students

4.3.5 Outcome Expectations and Choice Goals in secondary school students

4.4 Regression Analysis

4.4.1 Personality on Choice Goals in secondary school students

4.4.2 Personality on Career Decision Making Self-Efficacy in secondary school students

4.4.3 Career Decision Making Self-Efficacy on Choice Goals in secondary school students

4.4.4 Personality on Outcome Expectations in secondary school students

4.4.5 Outcome Expectations on Choice Goals in secondary school students

4.5 MEDIATION ANALYSIS

4.5.1 Personality and Choice Goals, with Career Decision Making Self Efficacy (CDMSE) as a mediator.

4.5.2 Personality and Choice Goals, with Outcome Expectations as a mediator.

4.2 DESCRIPTIVE ANALYSIS

4.2.1 Descriptive analysis of demographical variable

Table 4.1 Descriptive Analysis of Demographical Variables

Gender		
	Count	Percent
Male	286	50.4%
Female	282	49.6%
Total	568	100
Grade		
	Count	Percent
XI	287	50.5%
XII	281	49.5%
Total	568	100
Stream		

	Count	Percent
Arts	439	77.3%
Commerce	2	0.4%
Science	127	22.4%
Total	568	100
Districts		
Dhalai	53	9.3%
Gomati	116	20.4%
Khowai	71	12.5%
North Tripura	60	10.6%
Sepahijala	85	15.0%
South Tripura	92	16.2%
Unakoti	58	10.2%
West Tripura	33	5.8%
Total	568	100
Schools		
Ambasa English Medium Model School	53	9.3%
Belonia Govt. English Medium H.S. School	92	16.2%
Garia Academy (Model)	116	20.4%
Golden Valley H.S. School	60	10.6%
Henry Derozio Academy	33	5.8%
Khowai Govt. English Medium Class XII School	71	12.5%
Pabiacherra Class XII School	58	10.2%
St. Xavier's Higher Secondary School	85	15.0%
Total	568	100

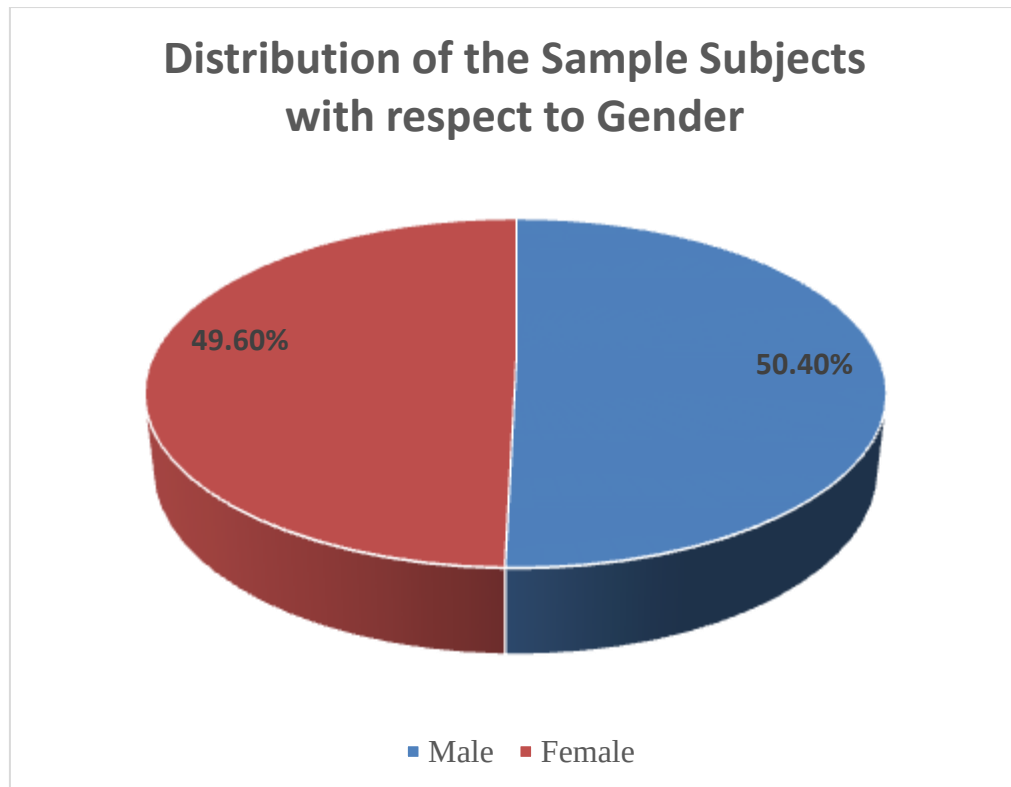


Fig.4.1 Distribution of the Sample Subjects with respect to Gender

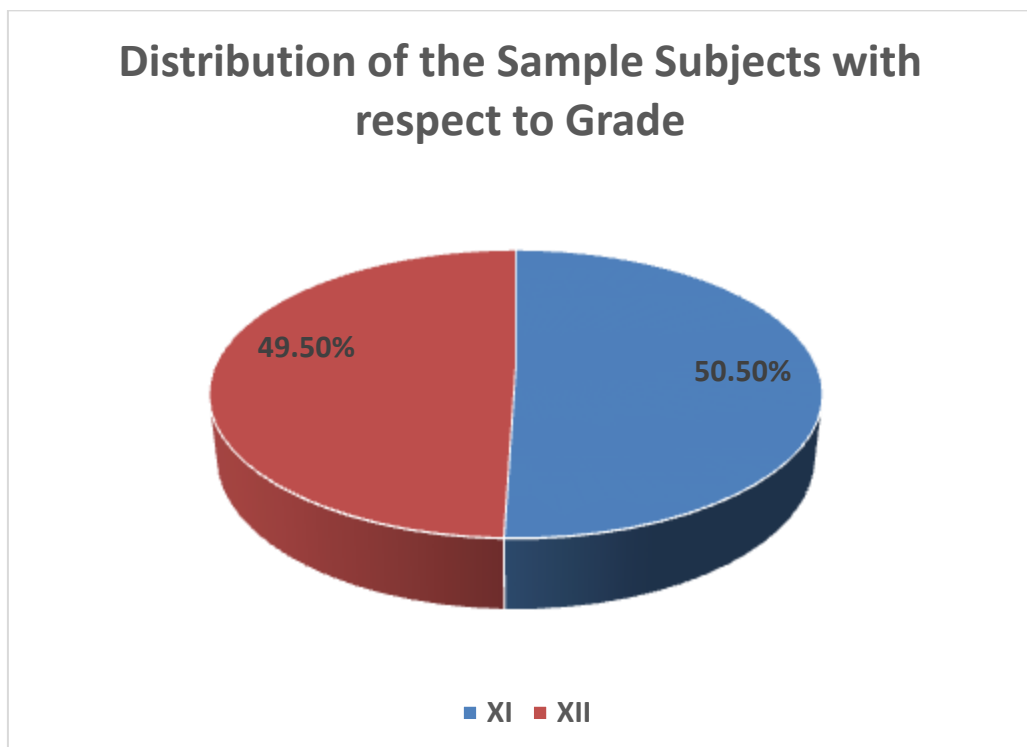


Fig.4.2 Distribution of the Sample Subjects with respect to Grade

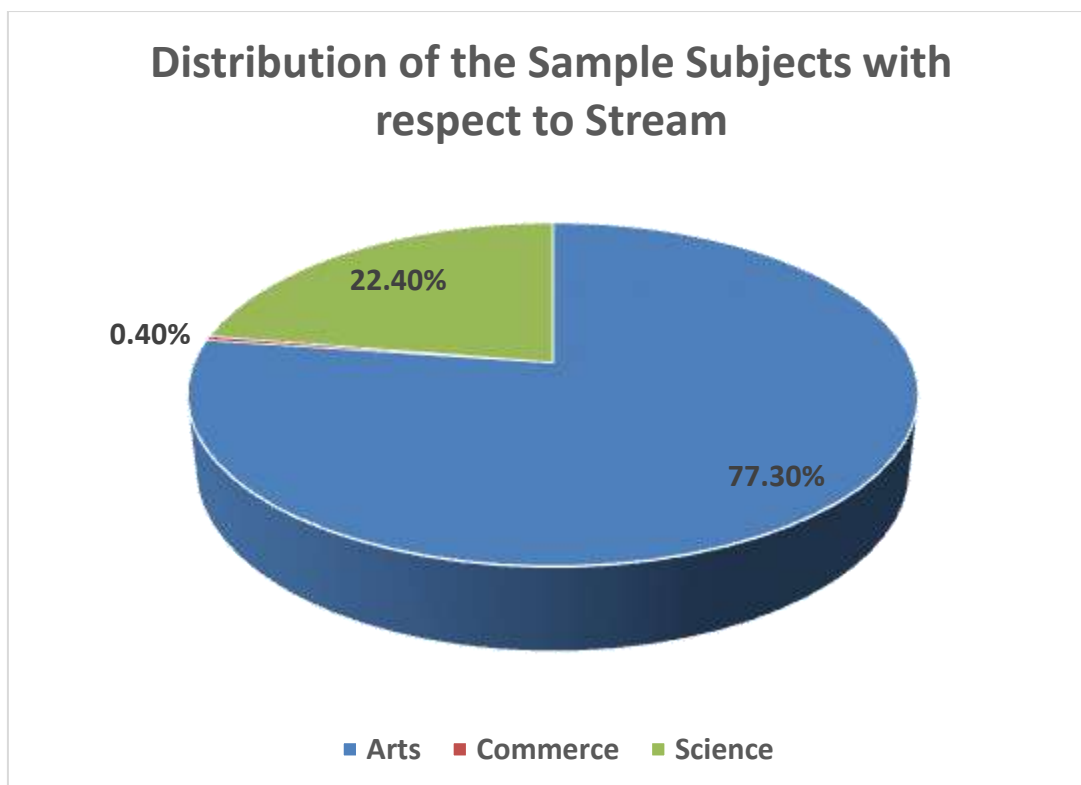


Fig.4.3 Distribution of the Sample Subjects with respect to Stream

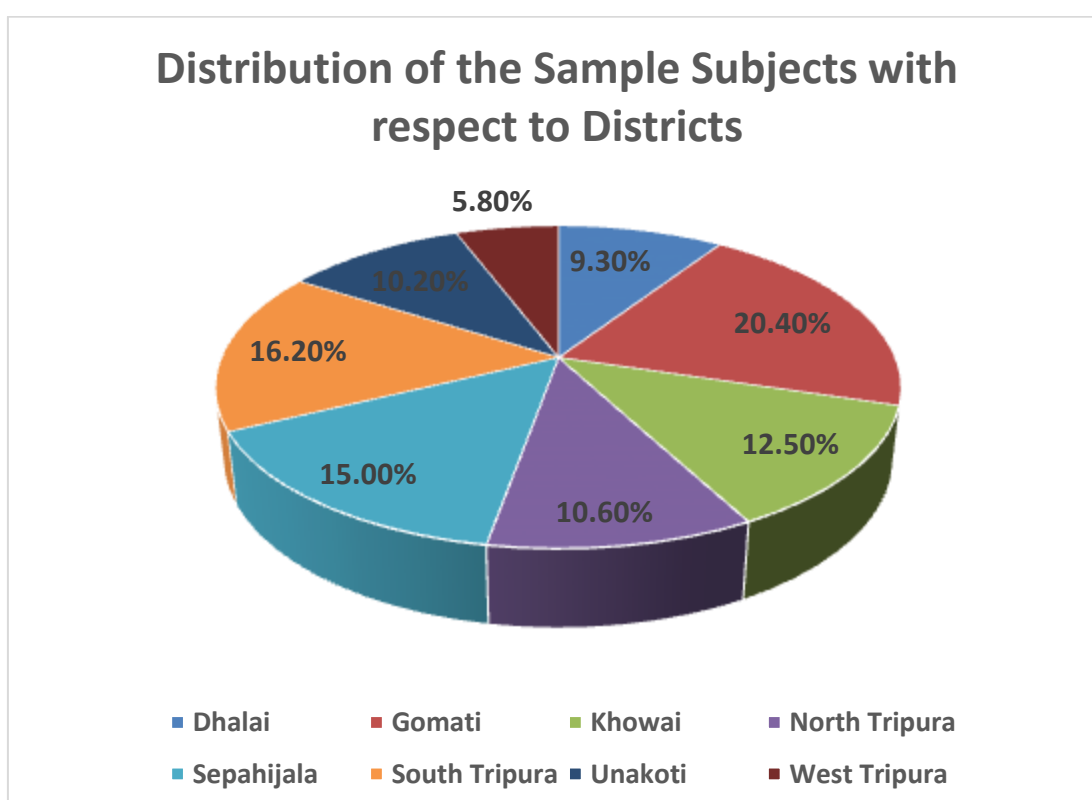


Fig.4.4 Distribution of the Sample Subjects with respect to Districts

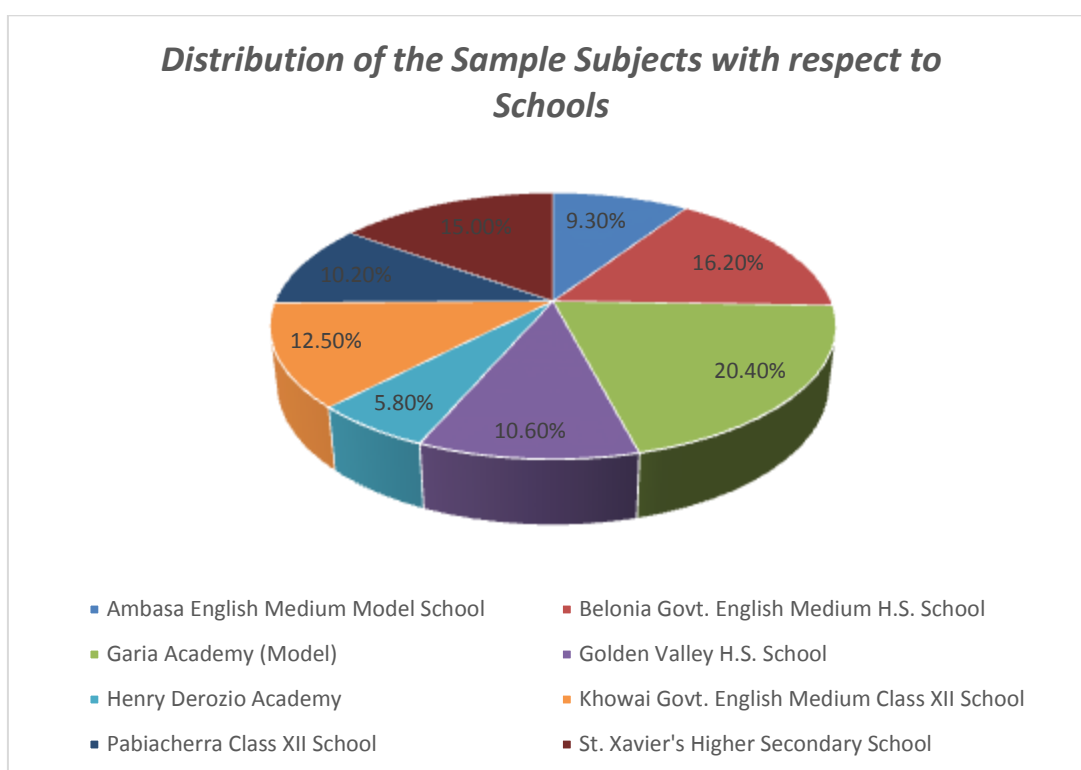


Fig.4.5 Distribution of the Sample Subjects with respect to Schools

The dataset includes 568 senior secondary school students with no missing data, indicating completeness. The mean and median of the senior secondary school students count are both 285, with a standard deviation of 164, suggesting a symmetric distribution but substantial variability. Student counts range from 1 to 568 across various categories.

Frequencies Analysis: Gender distribution is balanced, with 286 boys (50.4%) and 282 girls (49.6%). Students are nearly evenly distributed between Grade XI (50.5%) and Grade XII (49.5%). Most students are enrolled in the Arts stream (77.3%), followed by Science (22.4%), with minimal participation in Commerce (0.4%). Students represent eight districts, with "Gomati" having the highest share (20.4%) and "West Tripura" the lowest (5.8%). The data covers eight schools, with "Garia Academy (Model)" having the highest representation (20.4%) and "Henry Derozio Academy" the lowest (5.8%).

Interpretation: The data reveals wide variability in student distribution across schools, indicating differences in size or popularity. The near-equal gender

representation suggests no significant disparity among the surveyed students. Grades XI and XII have nearly equal representation, reflecting consistent class sizes. The dominance of the Arts stream suggests potential cultural, societal, or institutional influences, while Commerce's low numbers may reflect limited offerings or interest. District-wise, "Gomati" and "South Tripura" show higher representation, possibly due to more schools or population density.

The descriptive statistics provide a comprehensive overview of the student demographics. The significant variability in student numbers across schools and streams, along with balanced gender and grade distributions, offer valuable insights for policymakers and educators to understand student preferences and demographic trends better. This can inform targeted interventions and resource allocation to improve educational outcomes.

The sample consists of 568 participants, with no missing data, ensuring a complete dataset for analysis. Descriptive statistics were used to assess eight key variables: Openness, Conscientiousness, Extroversion, Agreeableness, Neuroticism, CDMSE, OE, & Choice Goals. Under the measures of descriptive statistics, techniques estimating the measures of Central Tendency, Dispersion and Asymmetry are presented below in the form of “*Mean, Standard Deviation, Skewness, Kurtosis and Standard Error*”. Below is a summary of the findings for each variable:

Table 4.2 Summary of Descriptive Statistics Estimation of Personality traits in Senior Secondary School Students

“Descriptive Statistics”									
“Variable”	“N”	“Mean”	“Std. Deviation”	“Skewness”			“Kurtosis”		
				“Statistic”	“Std. Error”	z-score	“Statistic”	“Std. Error”	z-score
Openness	568	3.453	0.540	-0.69	0.103	-6.70	0.447	0.205	2.18
Conscientiousness	568	3.451	0.541	-0.664	0.103	-6.45	0.538	0.205	2.63
Extroversion	568	3.469	0.553	-0.874	0.103	-8.49	0.69	0.205	3.37
Agreeableness	568	3.457	0.513	-0.660	0.103	-6.41	0.228	0.205	1.11
Neuroticism	568	3.446	0.552	-0.710	0.103	-6.89	0.383	0.205	1.87



Fig 4.6 Mean scores of personality (Openness, Conscientiousness, Extroversion, Agreeableness, Neuroticism)

Openness: The mean score of 3.453 indicates that most participants exhibit high openness to experience. The negative skewness (-0.69 with z-score of -6.70) suggests that distribution is significantly negatively skewed ($p < 0.05$) and more participants scored higher than lower, and the positive kurtosis (0.447 with z score of 2.18) indicates that the distribution of scores is slightly heavier than normal. However, the absolute scores of both skewness and kurtosis are within the acceptable limits of normality.

Conscientiousness: With a mean score of 3.451, participants are generally in the mid-range for conscientiousness. The slight negative skewness (-0.664 with z-score -6.45) suggests that significant negative skewness and more participants scoring on the higher end, while the modest and positive kurtosis of 0.538 with z-score 2.63 indicating a distribution that is nearly normal but slightly flatter. Absolute estimates of both the measures of asymmetry are within the conservative thresholds.

Extroversion: The mean score of 3.469 reflects low levels of extroversion among participants. The negative skewness (-0.874 with z score -8.49) indicates significant negative skewness and that most participants scored higher, and the significant positive kurtosis (0.69 with Z score 3.37) shows a moderately peaked distribution. The data of this personality type showed the maximum asymmetry from normality but practically the deviation is well within the acceptable limits since the absolute values

of the estimates are below plus or minus 1.

Agreeableness: The mean score of 3.457 suggests that participants generally demonstrate agreeable behavior. The significant negative skewness (-0.660 with z score -6.41) indicates more high scorers, and the non-significant kurtosis (0.228 with z score 1.11) reflects a mildly asymmetric distribution towards the higher end with normal tail weight.

Neuroticism: With a mean score of 3.446, participants are at a mid-range level of neuroticism. The skewness of -0.710 with z score -6.89 suggests a significant negative skewness and a slightly left-skewed distribution of scores, while the kurtosis (0.383 with z score 0.383) indicates a distribution which does not significantly differ from the normal curve. The asymmetry is practically acceptable since for the data to be considered symmetric and normal, the skewness and kurtosis must be within the limits of -2 to $+2$ and from -7 to $+7$ (Hair et al., 2010; Bryne, 2010).

Table 4.3 Summary of Descriptive Statistics Estimation of Career Decision-Making Self-Efficacy (CDMSE), Outcome Expectations (VOE) and Choice Goals in senior secondary school students

“Descriptive Statistics”									
“Variable”	“N”	“Mean”	“Std. Deviation”	“Skewness”			“Kurtosis”		
				“Statistic”	“Std. Error”	Z	“Statistic”	“Std. Error”	Z
Career Decision-Making Self-Efficacy (CDMSE)	568	3.717	0.528	-0.444	0.103	-4.31	0.149	0.205	0.73
Outcome Expectations (VOE)	568	3.392	0.473	-0.608	0.103	-5.90	0.086	0.205	0.42
Choice Goals	568	4.157	0.704	0.952	0.103	9.24	18.127	0.205	88.42

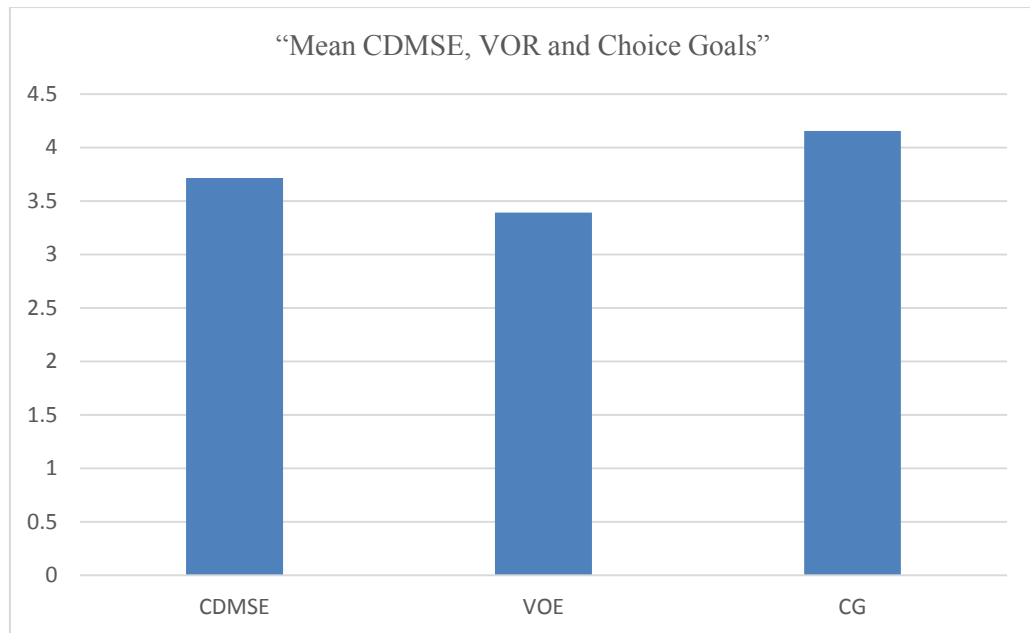


Fig 4.7 Mean scores of Career Decision-Making Self-Efficacy (CDMSE), Outcome Expectations (VOE) and Choice Goals

Career Decision-Making Self-Efficacy (CDMSE): Average levels of self-efficacy in pursuing a profession decision are indicated in the mean of 3.717. The statistically significant negative skewness (-0.444 with z score -4.31) suggests that the distribution is approximately normal but slight accumulation of the scores towards the higher end. The kurtosis is non-significant (0.149 with z score 0.73) indicating a distribution that is not significantly different from the normal curve in terms of the peak.

Outcome Expectations (VOE): The mean score of 3.392 reflects moderate outcome expectations. The significant negative skewness (-0.608 with z score -5.90) suggests that more participants scored high, and there is negligible kurtosis (0.0862 with z score 0.42) which shows that the distribution is mesokurtic in nature.

Choice Goals: The mean score of 4.157 indicates that participants generally have defined career goals. The extremely significant and positive skewness (0.952 with z score 9.24) suggests extreme deviation from normality and that more participants scored low on this variable, and the extremely significant and very high kurtosis (18.127 with z score 88.42) points to a highly concentrated leptokurtic distribution. While the data of the independent and mediating variables showed nearly normal distribution for a large sample size of 568, the extreme deviation or asymmetry evident in the scores of the variable choice goals towards the extreme values. A

possible explanation for this characteristic in the sample data of subjects from Tripura state is that, these students are aware of the agrarian economy of the state with limited industry specific employment opportunities and hence develop very high career aspirations in general.

In brief, participants generally score high on openness to experience, agreeableness, and choice goals, while they score lower on conscientiousness, extroversion, neuroticism, vocational outcome expectations, and career decision making self-efficacy. The data distributions are mostly normal, with some variations in skewness and kurtosis, providing a reliable foundation for further analysis.

4.3 Correlational Analysis

4.3.1 Relationship between Personality and Choice Goals in senior secondary school students

Objective-1: To study the relationship between Personality and Choice Goals in senior secondary school students.

H₀1: There is no significant relationship between Personality and Choice Goals in senior secondary school students.

Table 4.4 Relationship between Personality and Choice Goals in senior secondary school students

Personality types	Correlation with Choice Goals	p-value
Openness	0.468**	< .001
Conscientiousness	0.461**	< .001
Extraversion	0.441**	< .001
Agreeableness	0.475**	< .001
Neuroticism	0.455**	< .001

Significant at * $p < .05$, ** $p < .01$, *** $p < .001$

Interpretation: The relationship between the Openness and Choice Goals was found to be moderate in strength and positive in nature for Pearson moment coefficient correlation $r=0.468$. The result is highly significant for level of significance 0.001 (<0.001). The result shows that as the students are willing to try new things as well as engage in imaginative and intellectual activities they tend to have specific aspirations or objectives regarding their career paths. From a practical perspective, this result implies that there is covariance or simultaneous change in the positive direction, in these two variables in secondary school students. In other words, as students demonstrate greater openness, their choice-related goals also increase correspondingly. This finding is in line with the results of Arora and Rangnekar (2016) who reported openness the Big Five personality dimension is significantly related to the career commitment. According to Lounsbury, Hutchens and Loveland (2004), openness was found to be significantly and positively correlated to the career preparedness for middle and high school students. Truda (2024) highlighted that personality trait such as openness to experience is significantly correlates with career commitment (goals and aspiration).

The relationship between the Conscientiousness and Choice Goals was found to be moderate in strength and positive in nature for Pearson moment coefficient correlation $r=0.461$. The result is highly significant for level of significance 0.01 (0.001). The result shows that as the students exhibit traits such as inhibition, control and persistence of behavior, have the ability to engage in goal directed behaviors and they tend to have specific aspirations or objectives regarding their career paths. From a practical perspective, this result implies that there is covariance or simultaneous change in the positive direction, in these two variables in secondary school students. In other words, as students demonstrate greater Conscientiousness, their choice-related goals also increase correspondingly. This finding is in line with the results of Lounsbury, Hutchens and Loveland (2004) who found that Conscientiousness was significantly and positively related with the career preparedness in seventh, tenth and twelfth grade school students. Truda (2024) highlighted that personality trait such as conscientiousness is significantly correlates with career commitment (goals and aspiration).

The link between the Extroversion and Choice Goals was found to be moderate in strength and positive in nature for Pearson moment coefficient correlation $=0.441$. The

result is highly significant for level of significance 0.01 ($< .001$). The results demonstrate that the senior secondary school-students who interact with their environment particularly social and seeks comfort in social situation tends to organize and direct their career-related behaviors and decisions. This result depicts that there is covariance or simultaneous change in the positive direction, in these two variables in senior secondary school students. In other words, it indicates that extraversion trait in a balanced proportion in an individual always leads to the development of specific aspirations or objectives regarding their career paths. This rationale is proven by the work of Turda (2024) who highlighted that personality trait such as extraversion significantly correlates with a highly related variable of career commitment (goals and aspiration)

The association between the Agreeableness and choice goals was moderate in strength and positive in nature for Pearson moment coefficient correlation $r = 0.475$. The result is highly significant for level of significance 0.01 ($< .001$) and indicates that the secondary schools students who are soft-hearted, cooperative, trustworthy and altruistic are inclined to have specific aspirations or objectives regarding their career paths. This result depicts that there is covariance or simultaneous change in the positive direction, in these two variables in senior secondary school students. In other words, as students demonstrate greater Agreeableness, their choice goals also increase correspondingly. This result is in line with the findings of Arora and Rangnekar (2016) which found that agreeableness has a significant and positive relationship with the related variable career planning. The study of Lounsbury, Hutchens and Loveland (2004) found agreeableness to be significantly and positively correlated to the career preparedness in middle and high school students

The association between the neuroticism and choice goals was moderate in strength and positive in nature for Pearson moment coefficient correlation $r = 0.455$. The result is highly significant for level of significance 0.01 (< 0.001) and shows that the secondary schools students who worry about things and experience anxiety in career related matters, most likely have specific aspirations or objectives regarding their career paths. This result depicts that there is covariance or simultaneous change in the positive direction, in these two variables in senior secondary school students. In other words, as students demonstrate neuroticism within certain limit, their choice goals also increase correspondingly.

According to Economic Review of Tripura report 2023-24, released by the Government of Tripura, the state has primarily an agrarian economy with more than 44% of workforce dependent for their livelihood on farming and its related activities. Also, the cultivable land in the state is restricted due to the presence of forests. The state is industrially backward due to its geographic isolation, making the presence of infrastructure to be low and economic development to be slow. Only the unorganized sector is dominant in the state economy. Garretsen et al. (2019) found that personality traits are regionally or spatially clustered and this very spatial clustering is associated with the economic growth of a specific region. In particular, the neuroticism personality type is sensitive to economic growth of a geographical region. Rentfrow et al. (2015), under geographical psychology perspective, reported that there are studies in the literature which reveal that average levels of personality types specific to a region are related to important regional political, economic and health variables. It is owing to the long standing local traditions and culture that shape the specific personality traits of a certain region. One such variable is economic development of a region which shapes the personality traits of its people. Physical geography also plays its role in geographical clustering of personality types.

The observed positive relationships between neuroticism and the career-related constructs—namely, career decision-making self-efficacy, vocational outcome expectations, and career choice goals—among senior secondary school students in Tripura can be comprehensively understood through the theoretical framework of Self-Discrepancy Theory proposed by Higgins (1987). This theory posits that individuals experience emotional discomfort (guilt, anxiety) when there is a misalignment between their actual self (neurotic with limited current capabilities) and their ideal self (vision of material success and achievement) or ought self (what the neurotics think they should become due to family or social pressure). Such discrepancies often evoke anxiety, particularly in individuals high in neuroticism, thereby motivating them to engage in self-regulatory behaviors to reduce the perceived gaps.

For neurotic students, this contextual adversity may amplify internal self-discrepancies, leading them to compensate through increased engagement in career-related planning, goal setting, and efficacy-building behaviors. Also, Kasser (2002) mentioned that neurotic people with anxiety, negative emotions and withdrawnness

with people, use materialism, assured through a good career or its prospects, as a coping strategy. Their inherent limitations in winning over people through their behavior in turn forces them to move towards more tangible material resources that can be easily controlled and manipulated and seek happiness (Richins, 2017; Gornik-Durose and Boron, 2018). Consequently, neuroticism, typically associated with emotional instability, may in this context serve as a catalyst for proactive career development, especially when driven by the perceived urgency to bridge the gap between current limitations and future aspirations (Higgins, 1987; Lent et al., 1994; Bandura, 1986).

In this way, in a geographically isolated and economically backward vocational environment of Tripura, adolescent students can be anxious with respect to the formation of career related goals (Madhani, 2020), and hence become more steady-fast in this direction as per Self-discrepancy theory of Higgins (1987), leading to the obtaining of a population specific relationship between neuroticism and choice goals in this study. However, the context-specific correlational result of neuroticism and choice goals obtained in this study requires replication in politically, geographically, economically and socially contexts similar to Tripura state.

Hence the ***null hypothesis H_0*** that “There is no significant relationship between Personality (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) and Choice Goals in seniors econdary school students” is *Rejected*.

4.3.2 Relationship between Personality and Career Decision-Making Self-Efficacy (CDMSE)

Objective-2: To study the relationship between Personality and Career Decision Making Self-Efficacy in senior secondary school students.

H_0 2. There is no significant relationship between Personality and Career Decision Making Self-Efficacy in senior secondary school students

Table 4.5 Relationship between Personality and Career Decision Making Self-Efficacy in senior secondary school students

Personality types	Correlation with CDMSE	p-value
Openness	0.536**	< .001
Conscientiousness	0.534**	< .001
Extraversion	0.520**	< .001
Agreeableness	0.531**	<.001
Neuroticism	0.531**	<0.001

Significant at * $p < .05$, ** $p < .01$, * $p < .001$**

Interpretation: The relationship between the Openness and Career Decision Making Self-Efficacy was found to be moderate in strength and positive in nature for Pearson moment coefficient correlation=0.536. The result is highly significant for level of significance 0.001 (<0.001). The result shows that as the students are willing to try new things as well as engage in imaginative and intellectual activities, they tend to display confidence in their ability to make decisions related to their career. From a practically perspective, this result implies that there is covariance or simultaneous change in the positive direction, in these two variables in senior secondary school students. In other words, as students demonstrate greater openness, their career decision making self-efficacy also increase correspondingly. This finding is in line with the results of Zulkifli, Rahman and Musa (2021) who found that openness ($r=0.212^{**}$, $n=175$, $p<0.05$) is significantly related to the Career Decision Making of the Pre-University students. Wu et.al. (2020) found a positive relationship between openness and CDMSE among poor rural university students. Chadick (2018) and Bailey (2002) also reported a significant and positive correlation between CDMSE and openness personality dimension in their study.

The relationship between the Conscientiousness and Career Decision Making Self-Efficacy was found to be moderate in strength and positive in nature for Pearson moment coefficient correlation=0.534. The result is highly significant for significance

0.001 (<0.001). The result shows that students who like to do their work well and thoroughly, have the ability to engage in goal directed behaviors, and are inclined to possess confidence in their ability to make decisions related to their career. From a practical perspective, this result implies that there is covariance or simultaneous change in the positive direction, in these two variables in senior secondary school students. In other words, as students demonstrate greater conscientiousness, their career decision making self-efficacy also increase correspondingly. This finding is in line with the results of Zulkifli, Rahman and Musa (2021) who found that conscientiousness, ($r=0.505^{**}$, $n=175$, $p<0.05$) is significantly related to the Career Decision Making self-efficacy of the Pre-University students. Wu et.al. (2020) found a positive relationship between conscientiousness and CDMSE among poor rural university students. Chadick (2018), Penn (2016) and Bailey (2002) revealed a significant and positive correlation between CDMSE and conscientiousness personality dimension in their respective studies.

The link between the Extroversion and Career Decision Making Self-Efficacy was found to be moderate in strength and positive in nature for Pearson moment coefficient correlation=0.520. The result is highly significant for level of significance 0.001 ($< .001$) and demonstrates that senior secondary school students who interact with their environment, are particularly social and seek comfort in social situation, tend to have confidence in their ability to make career decisions. This result depicts that there is covariance or simultaneous change in the positive direction, in these two variables in senior secondary school students. In other words, it indicates that extraversion type of personality always leads to high career decision making self-efficacy. This rationale is proven by the work of Zulkifli, Rahman and Musa (2021) who found that extraversion ($r=0.486^{**}$, $n=175$, $p<0.05$) is significantly related to the Career Decision Making self-efficacy of the Pre-University students. Wu et.al. (2020) found a positive relationship between extraversion and CDMSE among poor rural university students. Chadick (2018), Penn (2016) and Bailey (2002) revealed a significant and positive correlation between CDMSE and extraversion personality dimension as well.

The association between the Agreeableness & Career Decision Making Self-Efficacy was moderate in strength and positive in nature for Pearson moment coefficient correlation $r = 0.531$. The result is highly significant for level of significance

0.001 (<0.001) and indicates that the secondary schools' students who are soft-hearted, cooperative, trustworthy and altruistic are inclined to have confidence in their ability to make career decisions. This result depicts that there is covariance or simultaneous change in the positive direction, in these two variables in senior secondary school students. In other words, as students demonstrate greater Agreeableness, their career decision making self-efficacy also increase correspondingly. This rationale is proven by the work of Wu et.al. (2020) who found a positive relationship between agreeableness and CDMSE among poor rural university students and Chadick (2018) also revealed a significant and positive correlation between CDMSE and agreeableness personality dimension.

The association between the Neuroticism and Career Decision Making Self-Efficacy was moderate in strength and positive in nature for Pearson moment coefficient correlation $r = 0.531$. The result is highly significant for level of significance 0.01 (<0.001) and shows that the secondary school students who worry about things and experience anxiety are most likely to have confidence in their ability to make career decisions. This result depicts that there is covariance or simultaneous change in the positive direction, in these two variables in senior secondary school students. In other words, as students demonstrate greater neuroticism, their career decision making self-efficacy also increase correspondingly.

A possible explanation of this result in the context of an economically under developed state of Tripura is that socioeconomic and regional disadvantages exacerbate career-related stress in youth (Fouad et al, 2006). Owing to being in such a disadvantageous position with respect to career prospects, many adolescents from the underdeveloped regions develop CDMSE as a coping and motivational response to their socio-economic limitations and in line with Bandura's Social Cognitive Theory (1986), compensate for external disadvantages through increased self-efficacy and goal-setting behavior in the context of career. Here it is worth mentioning that according to Betz and Hackett (1981), self-efficacy beliefs are adoptable, and exposure to mastery experiences, role models, and encouragement can rise the levels of CDMSE, even in marginalized populations like the adolescent students of Tripura state. However, the context-specific correlational result of neuroticism and career decision making self-efficacy obtained in this study requires replication in politically, geographically, economically and socially contexts similar to Tripura state.

Hence the **null hypothesis (H_0)** that “there is no significant relationship between Personality (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) and Career Decision Making Self-Efficacy in senior secondary school students” is *rejected*.

4.3.3 Relationship between Career Decision-Making Self-Efficacy (CDMSE) and Choice Goals

Objective 3: To study the relationship between Career Decision Making Self-Efficacy and Choice Goals in senior secondary school students

H₀₃: There is no significant relationship between Career Decision Making Self-Efficacy and Choice Goals in senior secondary school students

Table 4.6 Relationship between Career Decision Making Self-Efficacy and choice goals in senior secondary school students

Variables	Correlation with Choice Goals	p-value
CDMSE	0.510**	< .001

Significant at * $p < .05$, ** $p < .01$, * $p < .001$**

Interpretation: The relationship between the CDMSE and Choice Goals was found to be strong in strength and positive in nature for Pearson moment coefficient correlation $r=0.798$. The result is highly significant for level of significance 0.001 (<0.001). The result shows that as the students display confidence in their ability to make career decisions, they commonly demonstrate specific aspirations or objectives regarding their career paths. From a practical perspective, this result implies that there is covariance or simultaneous change in the positive direction, in these two variables in senior secondary school students. In other words, as students demonstrate greater CDMSE, their choice goals also increase correspondingly. This finding is in line with the results of Turda (2024) found that CDMSE correlates with career planning, setting goals and gathering information regarding self and profession; Akmal and Astri (2017) found out that higher CDMSE is related with higher level of readiness and aspirations for career choice.

Hence the **null hypothesis (H_0)** that there is no significant relationship between Career Decision Making Self-Efficacy and Choice Goals in senior senior secondary school students is *Rejected*

4.3.4 Relationship between Personality and Vocational Outcome Expectations (VOE)

Objective 4: To study the relationship between Personality and Outcome Expectations in senior secondary school students

H₀4: There is no significant relationship between Personality and Outcome Expectations in senior secondary school students

Table 4.7 Relationship between Personality and Outcome Expectations (OE)in senior secondary school students

Personality types	Correlation with OE	p-value
Openness	0.872**	< .001
Conscientiousness	0.872**	< .001
Extraversion	0.846**	< .001
Agreeableness	0.888**	< .001
Neuroticism	0.854**	< .001

Significant at * $p < .05$, ** $p < .01$, * $p < .001$**

Interpretation: The relationship between the Openness and Vocational Outcome Expectation was found to be strong in strength and positive in nature for Pearson moment coefficient correlation=0.872. The result is highly significant for level of significance 0.001 (<0.001) and shows that as the students are willing to try new things as well as engage in imaginative and intellectual activities, they tend to expect outcomes when pursuing actions related to their career goals and development. From a practical perspective, this result implies that there is covariance or simultaneous change in the positive direction, in these two variables in senior secondary school students. In other words, as students demonstrate greater openness, their Vocational Outcome Expectation also increases correspondingly. This finding is in line with the

results of Brown and Cinamon (2016) who reported that openness was associated to outcome expectations in Israeli youths.

The relationship between the Conscientiousness and Vocational Outcome Expectation was found to be strong in strength and positive in nature for Pearson moment coefficient correlation=0.872. The result is highly significant for level of significance 0.001 (<0.001) and shows that as the students are willing to well and do tasks thoroughly, they tend to expect outcomes when pursuing actions related to their career goals and development. From a practical perspective, this result implies that there is covariance or simultaneous change in the positive direction, in these two variables in senior secondary school students. In other words, as students demonstrate greater conscientiousness; their Vocational Outcome Expectation also increases correspondingly. This finding is in line with the results of Brown and Cinamon (2016) who reported that Conscientiousness was associated to outcome expectations in Israeli adolescents.

The link between the Extroversion and Vocational Outcome Expectation was found to be strong in strength and positive in nature for Pearson moment coefficient correlation=0.846. The result is highly significant for level of significance 0.001 ($<.001$) and demonstrates that senior secondary school students who interact with their environment, particularly the social environment, and who seek comfort in social situation, tend to expect outcomes when pursuing actions related to their career goals and development. This result depicts that there is covariance or simultaneous change in the positive direction, in these two variables in senior secondary school students. In other words, it indicates that extraversion always leads to high vocational outcome expectation. This finding is in line with the work of Seker and Capri (2019) who found a positive association between the vocational personality type, social people, and the vocational value of teamwork.

The association between the Agreeableness and Vocational Outcome Expectation was strong in strength and positive in nature for Pearson moment coefficient correlation $r = 0.888$. The result is highly significant for level of significance 0.001 ($<.001$) and indicates that the secondary schools' students who are soft-hearted, cooperative, trustworthy and altruistic are inclined to expect outcomes when pursuing actions related to their career goals and development. This result depicts that there is

covariance or simultaneous change in the positive direction, in these two variables in senior secondary school students. In other words, as students demonstrate greater Agreeableness, their vocational outcome expectation also increases correspondingly. The finding concurs with the results obtained by Schaub and Tokar (2005) agreeableness personality type was found to be associated with vocations involving social interests.

The association between the Neuroticism and Vocational Outcome Expectation was strong in strength and positive in nature for Pearson moment coefficient correlation $r = 0.854$. The result is highly significant for level of significance 0.001 (< 0.001) and shows that the secondary schools students who worry about things and experience anxiety related to career in economically under developed regions like Tripura state, most likely develop outcome related expectations from the career they subscribe. This result depicts that there is covariance or simultaneous change in the positive direction, in these two variables in secondary school students. In other words, as students demonstrate greater neuroticism, their vocational outcome expectation also increases correspondingly.

An explanation for this result is in accordance with the Self-discrepancy theory proposed by Higgins (1987). Adolescent students of Tripura due to factors like limited career opportunities, lack of infrastructure for employment and high uncertainty about future, experience a discrepancy between their actual and ideal self and become highly emotional instable or neurotic, and this very discomfort motivates them to consider career mobility through vocational outcome expectations, as a possible way out or coping mechanism towards a better and certain work future. However, the context-specific correlational result of neuroticism and vocational outcome expectations obtained in this study requires replication in politically, geographically, economically and socially contexts similar to Tripura state.

Hence the ***null hypothesis H_0*** that there is no significant relationship between Personality (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) and Outcome Expectations in senior secondary school students is *Rejected*.

4.3.5 Relationship between Vocational Outcome Expectations (VOE) and Choice Goals

Objective-5: To study the relationship between Outcome Expectations and Choice Goals in senior secondary school students.

H₀5: There is no significant relationship between Outcome Expectations and Choice Goals in senior secondary school students.

Table 4.8 Relationship between Outcome Expectations and choice goals in senior secondary school students

Variables	Correlation with Choice Goals	p-value
VOE	0.536***	< .001

*Significant at * $p < .05$, ** $p < .01$, *** $p < .001$*

Interpretation: The relationship between the **OE and Choice Goals** was found to be moderate in strength and positive in nature for Pearson moment coefficient correlation $r=0.536$. The result is highly significant for level of significance 0.001 (<0.001). The result shows that as the students who expect outcomes when pursuing actions related to their career goals and development, they commonly demonstrate specific aspirations or objectives regarding their career paths. From a practically perspective, this result implies that there is covariance or simultaneous change in the positive direction, in these two variables in senior secondary school students. In other words, as students demonstrate greater Outcomes Expectations, their choice goals also increase correspondingly. This finding is in line with the results of Brown and Cinamon (2015) suggests that assurance of attaining the desired outcomes from the chosen major is strengthened with high self-efficacy beliefs and aspirations.

Hence the **null hypothesis H_0** that there is no significant relationship between Outcomes Expectations and Choice Goals in senior secondary school students is *Rejected*

4.3.6 Summary of Interpretations of Correlation Coefficient

The findings from the correlation analyses between personality traits, Choice Goals, CDMSE, and VOE present a comprehensive picture of how individual differences influence decision-making processes and career-related outcomes.

1. Openness consistently shows a moderate to strong positive relationship with all key variables—Choice Goals ($r = 0.468$), CDMSE ($r = 0.536$), and VOE ($r = 0.872$). This implies that individuals who score high in Openness are more likely to have clearly defined choice goals, higher confidence in making career decisions, and more optimistic vocational expectations. These relationships are statistically significant, indicating robust results.
2. Conscientiousness demonstrates a moderate to strong positive relationship with all key variables—Choice Goals ($r = 0.461$), CDMSE ($r = 0.534$), and VOE ($r = 0.872$). The conscientious individuals have more defined choice goals and higher self-efficacy in career decision-making and their strong Outcome Expectations does show a statistically significant relationship, implying that this trait plays an important role in shaping career expectations.
3. Extroversion shows a moderate to strong positive relationship with all key variables—Choice Goals ($r = 0.441$), CDMSE ($r = 0.520$), and VOE ($r = 0.846$). These findings suggest that extroverted individuals are more likely to have well-defined goals, greater confidence in their career decision-making abilities, and higher vocational expectations, further demonstrating the relevance of social engagement and assertiveness in goal and career setting.
4. Agreeableness follows a similar pattern, with a moderate to strong positive relationship with all key variables—Choice Goals ($r = 0.475$), CDMSE ($r = 0.531$), and VOE ($r = 0.888$). This suggests that more agreeable individuals are likely to have higher self-efficacy and optimism regarding their career choices, aligning with the cooperative and supportive tendencies associated with Agreeableness.

5. Neuroticism shows a moderate to strong positive relationship with all key variables—Choice Goals ($r = 0.455$), CDMSE ($r = 0.531$), and VOE ($r = 0.854$). Despite Neuroticism traditionally being associated with negative emotionality, the positive correlations suggest that higher neuroticism may contribute to more defined goals and moderate expectations in vocational outcomes in the context of Tripura state where the poor environment pertaining to career prospects might in contrary push the adolescents to develop fair amount of career decision making self-efficacy, have clarity on vocational outcome expectations and set decent career choice goals as part of a coping mechanism in difficult situations.
6. Finally, the relationship between CDMSE and Choice Goals is moderate in strength ($r = 0.510$), indicating that individuals with higher self-efficacy in making career decisions tend to have much clearer and better-defined choice goals. Additionally, the correlation between VOE and Choice Goals ($r = 0.536$) suggests that higher Outcome Expectations are also associated with more defined choice goals.

In conclusion, these findings reveal that personality traits have a big impact on how people feel about making career decisions, what they expect from their careers and what they want to achieve. The strong correlation between CDMSE and Choice Goals underscores the pivotal self-efficacy's function in establishing professional objectives & decision-making procedures.

4.4. Regression Analyses

4.4.1 Predictive Role of Personality on Choice Goals

Objective-6: To study the predictive role of Personality (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) on Choice Goals in senior secondary school students

H₀₆: There is no predictive role of Personality (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) on Choice Goals in senior secondary school students

Table 4.9 Regression Analysis between Openness personality type and Choice Goals

“Model Summary”							
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H ₀)”
1	0.460	0.212	0.210	152.097	(1,566)	<.0001	Rejected
“ANOVA”							
“Model”		“Sum of Squares”		“df”	“Mean Square”	“F”	“Sig.”
Regression		59.651		1	59.651	152.097	.000 ^b
Residual		221.981		566	.392		
Total		281.632		567			
“Coefficients”							
“Model”		“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”
		“B”	“Std. Error”	“Beta”			“Lower Bound” “Upper Bound”
(Constant)		2.087	.170		12.279	.000	1.753 2.420
OPN		.600	.049	.460	12.333	.000	.504 .695

- Dependent Variable: Choice Goals
- Predictors: (Constant), Openness

Interpretation: The independent variable, Openness of the senior secondary school students, predicts Choice Goals moderately, with a simple linear regression coefficient R, 0.468, and the coefficient of determination R square 0.212. This indicates that 21.2% variation in Choice Goals is explained by the predictor variable Openness for a unit change in it. The simple linear regression coefficient R is significant since the p-value = <.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 152.097 for degree of freedom df = (1,566). The null hypothesis H₀, that

there is no predictive role of Personality (Openness) on Choice Goals in senior secondary school students stands *rejected*.

$$(\text{Choice Goals}) = 2.087 + 0.460 (\text{Openness}).$$

Here, the regression coefficient (β_1) was found to be 0.460, indicating the slope. The p-value for this coefficient was $<.001$ indicating high level of significance. Hence, the independent variable openness predicts the dependent variable career choice in senior secondary school students moderately but statistically significantly. The result is in conjunction with the study by Li (2015) who found that openness predicts related variables like the career exploration, goals and aspirations. According to Arora and Rangnekar (2016), openness to experience/intellect is the Big Five personality dimension that act as the significant predictor of all the three dimensions of career commitment (career identity, career resilience, and career planning). Practically, the result holds that when the senior secondary school students are willing to try new things as well as engage in imaginative and intellectual activities, it foster the growth in specific aspirations and objectives regarding their career paths.

Table 4.10 Regression Analysis between Conscientiousness personality type and Choice Goals

“Model Summary”							
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H₀)”
1	0.461	0.212	0.211	152.376	(1,566)	0.000	Rejected
“ANOVA”							
“Model”			“Sum of Squares”	“df”	“Mean Square”	“F”	“Sig.”
Regression			59.738	1	59.738	152.376	.000 ^b
Residual			221.895	566	.392		
Total			281.632	567			

“Coefficients”							
“Model”	“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”	
	“B”	“Std. Error”	“Beta”			“Lower Bound”	“Upper Bound”
(Constant)	2.088	.170		12.308	.000	1.755	2.421
OPN	.599	.049	.461	12.344	.000	.504	.695

- Dependent Variable: Choice Goals
- Predictors: (Constant), Conscientiousness

Interpretation: The independent variable, Conscientiousness of the senior secondary school students, predicts Choice Goals moderately, with a simple linear regression coefficient R , 0.461, and the coefficient of determination R square 0.212. This indicates that 21.2% variation in Choice Goals is explained by the predictor variable Conscientiousness for a unit change in it. The simple linear regression coefficient R is significant since the p -value = 0.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 152.376 for degree of freedom $df = (1,566)$. The null hypothesis H_0 , that there is no predictive role of Personality (Conscientiousness) on Choice Goals in senior secondary school students stands *rejected*.

(Choice Goals) = 2.088 + 0.461 (Conscientiousness).

Here, the regression coefficient (β_1) was found to be 0.461, indicating the slope. The p -value for this coefficient was 0.001 indicating high level of significance. Hence, the independent variable Conscientiousness predicts the dependent variable career choice in senior secondary school students moderately and statistically significantly. The result is in conjunction with the work of Li (2015) who found that Conscientiousness predicts related variables like the career exploration, goals and aspirations. In Indian context, Arora and Rangnekar (2016) found that conscientiousness was a significant predictor of only career planning. Practically, the result holds that when the senior secondary school students exhibits traits such as inhibition, control and persistence of behavior and has the ability to engage in goal directed behaviors, it foster their growth in specific aspirations and objectives regarding their career paths.

Table 4.11 Regression Analysis between Extroversion personality type and Choice Goals

“Model Summary”							
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H ₀)”
1	0.441	0.194	0.193	136.337	(1,566)	<.000	Rejected
“ANOVA”							
“Model”		“Sum of Squares”		“df”	“Mean Square”	“F”	“Sig.”
Regression		54.670		1	54.670	136.337	.000 ^b
Residual		226.962		566	.401		
Total		281.632		567			
“Coefficients”							
“Model”		“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”
		“B”	“Std. Error”	“Beta”			“Lower Bound” “Upper Bound”
(Constant)		2.211	.169		13.099	.000	1.879 2.542
OPN		.561	.048	.441	11.676	.000	.467 .655

- Dependent Variable: Choice Goals
- Predictors: (Constant), Extroversion

Interpretation: The independent variable, Extroversion of the senior secondary school students, predicts Choice Goals moderately, with a simple linear regression coefficient R, 0.441, and the coefficient of determination R square 0.194. This indicates that 19.4% variation in Choice Goals is explained by the predictor variable Extroversion for a unit change in it. The simple linear regression coefficient R is significant since the p-value = <.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 136.337 for degree of freedom df = (1,566). The null

hypothesis H_0 , that there is no predictive role of Personality (Extroversion) on Choice Goals in seniorsecondary school students stands *rejected*.

$$(\text{Choice Goals}) = 2.211 + 0.441 (\text{Extroversion}).$$

Here, the regression coefficient (β_1) was found to be 0.441, indicating the slope. The p-value for this coefficient was $<.001$ indicating high level of significance. Hence, the independent variable Extroversion predicts the dependent variable career choice in senior secondary school students moderately and statistically significantly. The result is in conjunction with the work of Ali and Mahmud (2020) who found that extraversion is related with proactive career planning and strong aspirations; Akomolafe and Popoola (2013) work indicated that extraversion is significant predictor of students' well developed career plans and objectives. Practically, the result holds that when the senior secondary school students interact with their environment, particularly the social surrounding, and seeks comfort in social situation, it foster their growth in specific aspirations and objectives regarding their career paths.

Table 4.12 Regression Analysis between Agreeableness personality type and Choice Goals

“Model Summary”							
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H_0)”
1	0.475	0.225	0.224	164.587	(1,566)	$<.000$	Rejected
“ANOVA”							
“Model”			“Sum of Squares”	“df”	“Mean Square”	“F”	“Sig.”
Regression			63.446	1	63.446	164.587	.000 ^b
Residual			218.186	566	.385		
Total			281.632	567			

“Coefficients”							
“Model”	“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”	
	“B”	“Std. Error”	“Beta”			“Lower Bound”	“Upper Bound”
(Constant)	1.906	.177		10.741	.000	1.557	2.254
OPN	.651	.051	.475	12.829	.000	.552	.751

- Dependent Variable: Choice Goals
- Predictors: (Constant), Agreeableness

Interpretation: The independent variable, Agreeableness of the senior secondary school students, predicts Choice Goals moderately, with a simple linear regression coefficient R, 0.475, and the coefficient of determination R square 0.225. This indicates that 22.5% variation in Choice Goals is explained by the predictor variable Agreeableness for a unit change in it. The simple linear regression coefficient R is significant since the p-value = <.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 164.587 for degree of freedom df = (1,566). The null hypothesis H_0 , that there is no predictive role of Personality (Agreeableness) on Choice Goals in senior secondary school students stands *rejected*.

(Choice Goals) = 1.906 + 0.475 (Agreeableness).

Here, the regression coefficient (β_1) was found to be 0.475, indicating the slope. The p-value for this coefficient was <.001 indicating high level of significance. Hence, the independent variable Agreeableness predicts the dependent variable career choice in senior secondary school students moderately and statistically significantly. The result is in conjunction with Li (2015) study which found that Agreeableness predicts related career variables like the career exploration, goals and aspirations. Also, Arora and Rangnekar (2016) revealed that Big Five personality dimension of agreeableness was found to have a positive significant influence on career planning. Practically, the result holds that when the senior secondary school students were soft-hearted, cooperative, trustworthy and altruistic, it facilitates their growth in specific aspirations and objectives regarding their career paths.

Table 4.13 Regression Analysis between Neuroticism personality type and Choice Goals

“Model Summary”							
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H ₀)”
1	0.455	0.207	0.206	147.888	566	0.000	Rejected
“ANOVA”							
“Model”		“Sum of Squares”		“df”	“Mean Square”	“F”	“Sig.”
Regression		58.342		1	58.342	147.888	.000 ^b
Residual		223.290		566	.395		
Total		281.632		567			
“Coefficients”							
“Model”		“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”
		“B”	“Std. Error”	“Beta”			“Lower Bound” “Upper Bound”
(Constant)		2.156	.167		12.935	.000	1.828 2.483
OPN		.581	.048	.455	12.161	.000	.487 .675

- Dependent Variable: Choice Goals
- Predictors: (Constant), Neuroticism

Interpretation: The independent variable, Neuroticism of the senior secondary school students, predicts Choice Goals very moderately, with a simple linear regression coefficient R, 0.455, and the coefficient of determination R square 0.207. This indicates that 20.7% variation in Choice Goals is explained by the predictor variable Neuroticism for a unit change in it. The simple linear regression coefficient R is significant since the p-value = 0.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 147.888 for degree of freedom df = (1,566). The null

hypothesis H_0 , that there is no predictive role of Personality (Neuroticism) on Choice Goals in senior secondary school students stands *rejected*.

$$(\text{Choice Goals}) = 2.156 + 0.455 (\text{Neuroticism}).$$

Here, the regression coefficient (β_1) was found to be 0.455, indicating the slope. The p-value for this coefficient was 0.001 indicating high level of significance. Hence, the independent variable Neuroticism predicts the dependent variable career choice in senior secondary school students moderately and statistically significantly. The result is in the context of adolescent students belonging to the Tripura state with the rationale explained in the above section of correlational study. Practically, the result holds that when the senior secondary school students worry about things and experience anxiety, it enhances their growth in specific aspirations and objectives regarding their career paths. However, the context-specific regression result of neuroticism and choice goals obtained in this study requires replication in politically, geographically, economically and socially contexts similar to Tripura state.

4.4.2 Predictive role of Personality on Career Decision-Making Self-Efficacy (CDMSE)

Objective-7: To study the predictive role of Personality (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) on Career Decision Making Self-Efficacy in senior secondary school students

H_0 7: There exists no significant predictive role of Personality (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) on Career Decision Making Self-Efficacy in senior secondary school students

Table 4.14 Regression Analysis between Openness personality type and CDMSE

“Model Summary”							
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H_0)”
1	0.536	0.287	0.286	227.599	(1,566)	<.000	Rejected
“ANOVA”							

“Model”	“Sum of Squares”	“df”	“Mean Square”	“F”	“Sig.”		
Regression	45.471	1	45.471	227.599	.000 ^b		
Residual	113.078	566	.200				
Total	158.549	567					
“Coefficients”							
“Model”	“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”	
	“B”	“Std. Error”	“Beta”			“Lower Bound”	“Upper Bound”
(Constant)	1.910	.121		15.744	.000	1.671	2.148
OPN	.523	.035	.536	15.086	.000	.455	.592

- Dependent Variable: CDMSE
- Predictors: (Constant), Openness

Interpretation: The independent variable, Openness of the secondary school students, predicts CDMSE moderately, with a simple linear regression coefficient R, 0.536, and the coefficient of determination R square 0.287. This indicates that 28.7% variation in CDMSE is explained by the predictor variable Openness for a unit change in it. The simple linear regression coefficient R is significant since the p-value = <.001 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 227.599 for degree of freedom df = (1,566). The null hypothesis H_0 , that there is no predictive role of Personality (Openness) on CDMSE in senior secondary school students stands *rejected*.

$$(\text{CDMSE}) = 1.910 + 0.536 (\text{Openness}).$$

Here, the regression coefficient (β_1) was found to be 0.536, indicating the slope. The p-value for this coefficient was <.001 indicating high level of significance. Hence, the independent variable openness predicts the dependent variable CDMSE in senior secondary school students moderately but statistically significantly. The result is in conjunction with the research of Hartung et al. (2008) and Lounsbury et al. (2005) who suggested that Openness strongly influenced career exploration and confidence

in making career choices. Practically, the result holds that when the senior secondary school students are willing to try new things as well as engage in imaginative and intellectual activities, it fosters the confidence in their ability to make career decisions.

Table 4.15 Regression Analysis between Conscientiousness personality type and CDMSE

“Model Summary”								
“Model”	“R”	“R Square”	“Adjusted R Square”		“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H ₀)”
1	0.534	0.285	0.284		226.135	(1,566)	0.000	Rejected
“ANOVA”								
“Model”			“Sum of Squares”		“df”	“Mean Square”	“F”	“Sig.”
Regression			45.262		1	45.262	226.135	.000 ^b
Residual			113.287		566	.200		
Total			158.549		567			
“Coefficients”								
“Model”			“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”
			“B”	“Std. Error”	“Beta”			“Lower Bound” “Upper Bound”
(Constant)			1.916	.121		15.809	.000	1.678 2.154
OPN			.522	.035	.534	15.038	.000	.454 .590

- Dependent Variable: CDMSE
- Predictors: (Constant), Conscientiousness

Interpretation: The independent variable, Conscientiousness of the senior secondary school students, predicts CDMSE moderately, with a simple linear regression

coefficient R, 0.534, and the coefficient of determination R square 0.285. This indicates that 28.5% variation in CDMSE is explained by the predictor variable Conscientiousness for a unit change in it. The simple linear regression coefficient R is significant since the p-value = 0.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 226.135 for degree of freedom $df = (1,566)$. The null hypothesis H_0 , that there is no predictive role of Personality (Conscientiousness) on CDMSE in senior secondary school students stands *rejected*.

$$(\text{CDMSE}) = 1.916 + 0.534 (\text{Conscientiousness}).$$

Here, the regression coefficient (β_1) was found to be 0.534, indicating the slope. The p-value for this coefficient was 0.000 indicating high level of significance. Hence, the independent variable Conscientiousness predicts the dependent variable CDMSE in senior secondary school students moderately and statistically significantly. The result is in conjunction with Betz and Hackett (2006) and Rogers and Creed (2011) studies which found that Conscientiousness came as the strongest predictor of Career Decision Making Self-Efficacy. Practically, the result holds that when the senior secondary school-students exhibits traits such as inhibition, control and persistence of behavior and has the ability to engage in goal directed behaviors, it cultivates confidence in their ability to make career decisions.

Table 4.16 Regression Analysis between Extroversion personality type and CDMSE

“Model Summary”							
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H_0)”
1	0.520	0.271	0.270	210.208	(1,566)	<.000	Rejected
“ANOVA”							
“Model”			“Sum of Squares”	“df”	“Mean Square”	“F”	“Sig.”

Regression	42.937	1	42.937	210.208	.000 ^b		
Residual	115.612	566	.204				
Total	158.549	567					
“Coefficients”							
“Model”	“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”	
	“B”	“Std. Error”	“Beta”			“Lower Bound”	“Upper Bound”
(Constant)	1.992	.120		16.540	.000	1.756	2.229
OPN	.497	.034	.520	14.499	.000	.430	.565

- Dependent Variable: CDMSE
- Predictors: (Constant), Extroversion

Interpretation: The independent variable, Extroversion of the senior secondary school students, predicts CDMSE moderately, with a simple linear regression coefficient R, 0.520, and the coefficient of determination R square 0.271. This indicates that 27.1% variation in CDMSE is explained by the predictor variable Extroversion for a unit change in it. The simple linear regression coefficient R is significant since the p-value = <.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 210.208 for degree of freedom df = (1,566). The null hypothesis H_0 , that there is no predictive role of Personality (Extroversion) on CDMSE in senior secondary school students stands *rejected*.

(CDMSE) = 1.992 + 0.520 (Extraversion).

Here, the regression coefficient (β_1) was found to be 0.520 indicating the slope. The p-value for this coefficient was <.000 indicating high level of significance. Hence, the independent variable Extroversion predicts the dependent variable CDMSE in senior secondary school students moderately and statistically significantly. The result is in conjunction with Rogers and Creed (2011) study who found that Extroversion came as the strongest predictor of Career Decision Making Self-Efficacy. Practically, the result holds that when the senior secondary school students interact with their environment particularly social and seeks comfort in social situation, it supports the confidence in their ability to make career decisions.

Table 4.17 Regression Analysis between Agreeableness personality type and CDMSE

“Model Summary”							
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H ₀)”
1	0.531	0.282	0.281	222.080	(1,566)	<.000	Rejected
“ANOVA”							
“Model”		“Sum of Squares”		“df”	“Mean Square”	“F”	“Sig.”
Regression		44.679		1	44.679	222.080	.000 ^b
Residual		113.870		566	.201		
Total		158.549		567			
“Coefficients”							
“Model”		“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”
		“B”	“Std. Error”	“Beta”			“Lower Bound” “Upper Bound”
(Constant)		1.828	.128		14.261	.000	1.576 2.080
OPN		.546	.037	.531	14.902	.000	.474 .619

- Dependent Variable: CDMSE
- Predictors: (Constant), Agreeableness

Interpretation: The independent variable, Agreeableness of the secondary school students, predicts CDMSE moderately, with a simple linear regression coefficient R, 0.531, and the coefficient of determination R square 0.282. This indicates that 28.2% variation in CDMSE is explained by the predictor variable Agreeableness for a unit change in it. The simple linear regression coefficient R is significant since the p-value = <.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of

222.080 for degree of freedom $df = (1,566)$. The null hypothesis H_0 , that there is no predictive role of Personality (Agreeableness) on CDMSE in senior secondary school students stands *rejected*.

$(CDMSE) = 1.828 + 0.531 (\text{Agreeableness})$.

Here, the regression coefficient (β_1) was found to be 0.531, indicating the slope. The p-value for this coefficient was $<.000$ indicating high level of significance. Hence, the independent variable Agreeableness predicts the dependent variable CDMSE in senior secondary school students moderately and statistically significantly. The result is in conjunction with Gushue et al. (2006) study who found that Agreeableness had a moderate positive effect on CDMSE, as it facilitated collaboration and adaptability in career exploration. Practically, the result holds that when the senior secondary school students were soft-hearted, cooperative, trustworthy and altruistic, it facilitates the confidence in their ability to make career decisions.

Table 4.18 Regression Analysis between Neuroticism personality type and CDMSE

“Model Summary”							
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H ₀)”
1	0.531	0.282	0.281	222.751	(1,566)	<.000	Rejected
“ANOVA”							
“Model”			“Sum of Squares”	“df”	“Mean Square”	“F”	“Sig.”
Regression			44.776	1	44.776	222.751	.000 ^b
Residual			113.773	566	.201		
Total			158.549	567			
“Coefficients”							
“Model”			“Unstandardized Coefficients”	“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”

	“B”	“Std. Error”	“Beta”			“Lower Bound”	“Upper Bound”
(Constant)	1.964	.119		16.509	.000	1.730	2.198
OPN	.509	.034	.531	14.925	.000	.442	.576

- Dependent Variable: CDMSE
- Predictors: (Constant), Neuroticism

Interpretation: The independent variable, Neuroticism of the secondary school students, predicts CDMSE moderately, with a simple linear regression coefficient R, 0.531, and the coefficient of determination R square 0.282. This indicates that 28.2% variation in CDMSE is explained by the predictor variable Neuroticism for a unit change in it. The simple linear regression coefficient R is significant since the p-value = 0.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 222.751 for degree of freedom $df = (1,566)$. The null hypothesis H_0 , that there is no predictive role of Personality (Neuroticism) on CDMSE in senior secondary school students stands *rejected*.

$(CDMSE) = 1.964 + 0.531 (\text{Neuroticism})$.

Here, the regression coefficient (β_1) was found to be 0.531, indicating the slope. The p-value for this coefficient was 0.000 indicating high level of significance. Hence, the independent variable Neuroticism predicts the dependent variable CDMSE in senior secondary school students moderately and statistically significantly. The result is in specific to the adolescent students of the economically under developed state of Tripura with poor employment related infrastructure and less career prospects. Practically, the result holds that when the senior secondary school students worry about things and experience anxiety due to their lackluster surroundings related to career, a discomfort sets in which motivates these students to develop the ability to make career decisions. Here, neuroticism sets in a sense of discomfort which further motivates the subjects acquire career mobility prospects through CDMSE in line with Self-discrepancy theory by Higgins (1989). However, the context-specific regression result of neuroticism and career decision making self efficacy obtained in this study requires replication in politically, geographically, economically and socially contexts similar to Tripura state.

4.4.3 Predictive role of Career Decision-Making Self-Efficacy (CDMSE) on Choice Goals

Objective-8: To study the predictive role of Career Decision Making Self-Efficacy on Choice Goals in senior secondary school students

H₀8: There exists no significant predictive role of Career Decision Making Self-Efficacy on Choice Goals in senior secondary school students

Table 4.19 Regression Analysis between CDMSE and Choice Goals

“Model Summary”								
“Model”	“R”	“R Square”	“Adjusted R Square”		“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H ₀)”
1	0.510	0.260	0.259		198.937	(1,566)	0.000	Rejected
“ANOVA”								
“Model”			“Sum of Squares”		“df”	“Mean Square”	“F”	“Sig.”
Regression			73.244		1	73.244	198.937	.000 ^b
Residual			208.388		566	0.368		
Total			281.632		567			
“Coefficients”								
“Model”			“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”
			“B”	“Std. Error”	“Beta”			“Lower Bound” “Upper Bound”
(Constant)			1.631	0.181		9.012	.000	1.275 1.986
OPN			0.680	0.048	0.510	14.105	.000	0.585 0.774

- Dependent Variable: **Choice Goals**
- Predictors: (Constant), CDMSE

Interpretation: The independent variable, CDMSE of the secondary school students, predicts Choice Goals strongly, with a simple linear regression coefficient R, 0.510, and the coefficient of determination R square 0.26. This indicates that 26% variation in Choice Goals is explained by the predictor variable CDMSE for a unit change in it. The simple linear regression coefficient R is significant since the p-value = <.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 198.937 for degree of freedom df = (1,566). The null hypothesis H_0 , that there is no predictive role of CDMSE on Choice Goals in senior secondary school students stands *rejected*.

$$(\text{Choice Goals}) = 1.631 + 0.510 (\text{CDMSE})$$

Here, the regression coefficient (β_1) was found to be 0.510, indicating the slope. The p-value for this coefficient was <.000 indicating high level of significance. Hence, the independent variable CDMSE predicts the dependent variable Choice Goals in senior secondary school students moderately statistically significantly. The result is in conjunction with Betz and Taylor (2001) who found that CDMSE strongly predicted students' ability to set achievable career aspirations and engage in effective career planning. Practically, the result holds that when the senior secondary school students have confidence in their ability to make career decisions, it simulates the growth in specific aspirations and objectives regarding their career paths.

4.4.4 Predictive role of Personality on Outcome Expectations

Objective-9: To study the predictive role of Personality (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) on Outcome Expectations in senior secondary school students

H₀9: There exists no significant predictive role of personality (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) on Outcome Expectations in senior secondary school students.

Table 4.20 Regression Analysis between Openness personality type and OE

“Model Summary”							
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis”

							(H ₀)”
1	0.872	0.760	0.760	1795.275	566	0.000	Rejected
“ANOVA”							
“Model”		“Sum of Squares”		“df”	“Mean Square”	“F”	“Sig.”
Regression		96.821		1	96.821	1795.275	.000 ^b
Residual		30.525		566	.054		
Total		127.346		567			
“Coefficients”							
“Model”		“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”
		“B”	“Std. Error”	“Beta”			“Lower Bound” “Upper Bound”
(Constant)		.755	.063		11.982	.000	.631 .879
OPN		.764	.018	.872	42.371	.000	.728 .799

- Dependent Variable: OE
- Predictors: (Constant), Openness

Interpretation: The independent variable, Openness of the secondary school students, predicts outcome expectations strongly, with a simple linear regression coefficient R, 0.872, and the coefficient of determination R square 0.760. This indicates that 76% variation in outcome expectations is explained by the predictor variable Openness for a unit change in it. The simple linear regression coefficient R is significant since the p-value = <.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 1795.275 for degree of freedom df = (1,566). The null hypothesis H₀, that there is no predictive role of Personality (Openness) on OE in senior secondary school students stands rejected.

$$(OE) = 0.755 + 0.872 (\text{Openness}).$$

Here, the regression coefficient (β_1) was found to be 0.872, indicating the slope. The p-value for this coefficient was $<.000$ indicating high level of significance. Hence, the independent variable openness predicts the dependent variable VOE in senior secondary school students strongly and statistically significantly. The result is in conjunction with Seibert and Kraimer (2001) study which indicated that openness predicted the salary level as outcome expectation. Practically, the result holds that when the senior secondary school students are willing to try new things as well as engage in imaginative and intellectual activities, it fosters to expect outcomes when pursuing actions related to their career goals and development.

Table 4.21 Regression Analysis between Conscientiousness personality type and OE

“Model Summary”									
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H ₀)”		
1	0.872	0.760	0.760	1796.348	566	0.000	Rejected		
“ANOVA”									
“Model”			“Sum of Squares”	“df”	“Mean Square”	“F”	“Sig.”		
Regression			96.835	1	96.835	1796.348	.000 ^b		
Residual			30.511	566	.054				
Total			127.346	567					
“Coefficients”									
“Model”			“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”	
			“B”	“Std. Error”	“Beta”			“Lower Bound”	“Upper Bound”
(Constant)			.759	.063		12.061	.000	0.635	0.882
OPN			.763	.018	.872	42.383	.000	0.728	0.799

- Dependent Variable: OE
- Predictors: (Constant), Conscientiousness

Interpretation: The independent variable, Conscientiousness of the secondary school students, predicts outcome expectations strongly, with a simple linear regression coefficient R, 0.872, and the coefficient of determination R square 0.760. This indicates that 76% variation in outcome expectations is explained by the predictor variable Conscientiousness for a unit change in it. The simple linear regression coefficient R is significant since the p-value = <.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 1796.348 for degree of freedom $df = (1,566)$. The null hypothesis H_0 , that there is no predictive role of Personality (Conscientiousness) on OE in senior secondary school students stands rejected.

$$(OE) = 0.755 + 0.872 (\text{Conscientiousness}).$$

Here, the regression coefficient (β_1) was found to be 0.872, indicating the slope. The p-value for this coefficient was <.000 indicating high level of significance. Hence, the independent variable Conscientiousness predicts the dependent variable VOE in senior secondary school students strongly and statistically significantly. The result is in conjunction with Brown and Cinamon (2016) study which indicated that Conscientiousness predicted the outcome expectations among Israeli adolescents. Practically, the result holds that when the senior secondary school students are willing to work thoroughly and well, it fosters outcome expectations when pursuing actions related to their career goals and development.

Table 4.22 Regression Analysis between Extroversion personality type and VOE

“Model Summary”							
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H_0)”
1	0.846	0.716	0.716	1427.437	(1,566)	.000	Rejected
“ANOVA”							

“Model”	“Sum of Squares”		“df”	“Mean Square”	“F”	“Sig.”	
Regression	91.188		1	91.188	1427.437	.000 ^b	
Residual	36.158		566	.064			
Total	127.346		567				
“Coefficients”							
“Model”	“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”	
	“B”	“Std. Error”	“Beta”			“Lower Bound”	“Upper Bound”
(Constant)	.879	.067		13.053	.000	.747	1.012
OPN	.725	.019	.846	37.781	.000	.687	.762

- Dependent Variable: OE
- Predictors: (Constant), Extroversion

Interpretation: The independent variable, Extroversion of the secondary school students, predicts OE strongly, with a simple linear regression coefficient R, 0.846, and the coefficient of determination R square 0.716. This indicates that 71.6% variation in OE is explained by the predictor variable Extroversion for a unit change in it. The simple linear regression coefficient R is significant since the p-value = <.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 1427.437 for degree of freedom df = (1,566). The null hypothesis H_0 , that there is no predictive role of Personality (Extroversion) on OE in senior secondary school students stands *rejected*.

(Outcome Expectation) = 0.879 + 0.846 (Extroversion).

Here, the regression coefficient (β_1) was found to be 0.846, indicating the slope. The p-value for this coefficient was <.000 indicating high level of significance. Hence, the independent variable Extroversion predicts the dependent variable VOE in senior secondary school students strongly and statistically significantly. The result is in conjunction with Seibert and Kraimer (2001) study which suggested that extraversion positively influence salary level, promotions, and career satisfaction. Practically, the result holds that when the senior secondary school students interact with their

environment particularly social and seeks comfort in social situation, it supports to expect outcomes when pursuing actions related to their career goals and development.

Table 4.23 Regression Analysis between Agreeableness personality type and VOE

“Model Summary”							
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H ₀)”
1	0.888	0.789	0.789	2119.647	(1,566)	.000	Rejected
“ANOVA”							
“Model”		“Sum of Squares”		“df”	“Mean Square”	“F”	“Sig.”
Regression		100.508		1	100.508	2119.647	.000 ^b
Residual		26.838		566	.047		
Total		127.346		567			
“Coefficients”							
“Model”		“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”
		“B”	“Std. Error”	“Beta”			“Lower Bound” “Upper Bound”
(Constant)		.559	.062		8.985	.000	.437 .681
OPN		.820	.018	.888	46.040	.000	.785 .855

- Dependent Variable: OE
- Predictors: (Constant), Agreeableness

Interpretation: The independent variable, Agreeableness of the secondary school students, predicts OE strongly, with a simple linear regression coefficient R, 0.888, and the coefficient of determination R square 0.789. This indicates that 78.9% variation in OE is explained by the predictor variable Agreeableness for a unit change in it. The simple linear regression coefficient R is significant since the p-value =

<.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 2119.647 for degree of freedom $df = (1,566)$. The null hypothesis H_0 , that there is no predictive role of Personality (Agreeableness) on OE in senior secondary school students stands rejected.

(Outcome Expectation) = $0.559 + 0.888$ (agreeableness).

Here, the regression coefficient (β_1) was found to be 0.888, indicating the slope. The p-value for this coefficient was <.000 indicating high level of significance. Hence, the independent variable Agreeableness predicts the dependent variable OE in senior secondary school students strongly and statistically significantly. The result is in conjunction with Seibert and Kraimer (2001) work on agreeableness influencing only to career satisfaction. Practically, the result holds that when the senior secondary school students were soft-hearted, cooperative, trustworthy and altruistic, it facilitates to expect outcomes when pursuing actions related to their career goals and development.

Table 4.24 Regression Analysis between Neuroticism personality type and VOE

“Model Summary”							
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H ₀)”
1	0.854	0.730	0.729	1527.626	(1,566)	.000	Rejected
“ANOVA”							
“Model”			“Sum of Squares”	“df”	“Mean Square”	“F”	“Sig.”
Regression			92.919	1	92.919	1527.626	.000 ^b
Residual			34.427	566	.061		
Total			127.346	567			
“Coefficients”							
“Model”			“Unstandardized Coefficients”	“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence

						Interval for B	
	"B"	"Std. Error"	"Beta"			"Lower Bound"	"Upper Bound"
(Constant)	.867	.065		13.253	.000	.739	.996
OPN	.733	.019	.854	39.085	.000	.696	.770

- Dependent Variable: OE
- Predictors: (Constant), Neuroticism

Interpretation: The independent variable, Neuroticism of the secondary school students, predicts Outcome Expectations strongly, with a simple linear regression coefficient R , 0.854, and the coefficient of determination R square 0.730. This indicates that 73% variation in OE is explained by the predictor variable Neuroticism for a unit change in it. The simple linear regression coefficient R is significant since the p -value = <.000 is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 1527.626 for degree of freedom $df = (1,566)$. The null hypothesis H_0 , that there is no predictive role of Personality (Neuroticism) on VOE in senior secondary school students stands *rejected*.

(Outcome Expectation) = $0.867 + 0.854$ (Neuroticism).

Here, the regression coefficient (β_1) was found to be 0.854 indicating the slope. The p -value for this coefficient was 0.000 indicating high level of significance. Hence, the independent variable Neuroticism predicts the dependent variable VOE in senior secondary school students strongly and statistically significantly. The result is specific to the context of the adolescent students of Tripura state with the rationale described in the above section of correlational analysis of the two variables. Practically, the result holds that when the senior secondary school students worry about things and experience anxiety, but at a lesser degree and within certain threshold limit, it enhances to outcome expectations when pursuing actions related to their career goals and development. Neuroticism at lesser degrees can be akin to the beneficial concept of Eustress. However, the context-specific regression result of neuroticism and vocational outcome expectations obtained in this study requires replication in politically, geographically, economically and socially contexts similar to Tripura state.

4.4.5 Predictive role of Outcome Expectations on Choice Goals

Objective-10: To study the predictive role of Outcome Expectations on Choice Goals in senior secondary school students

H₀10: There exists no significant predictive role of Outcome Expectations on Choice Goals in senior secondary school students

Table 4.25 Regression Analysis between VOE and Choice Goals

“Model Summary”							
“Model”	“R”	“R Square”	“Adjusted R Square”	“Estimated F-Value”	“df”	“Sig.”	“Result Null Hypothesis (H ₀)”
1	0.536	0.287	0.286	227.694	(1,566)	.000	Rejected
“ANOVA”							
“Model”		“Sum of Squares”		“df”	“Mean Square”	“F”	“Sig.”
Regression		80.794		1	80.794	227.694	.000 ^b
Residual		200.838		566	.355		
Total		281.632		567			
“Coefficients”							
“Model”		“Unstandardized Coefficients”		“Standardized Coefficients”	“t”	“Sig.”	“95.0% Confidence Interval for B”
		“B”	“Std. Error”	“Beta”			“Lower Bound” “Upper Bound”
(Constant)		1.455	.181		8.044	.000	1.099 1.810
OPN		.797	.053	.536	15.090	.000	.693 .900

- Dependent Variable: Choice Goals
- Predictors: (Constant), OE

Interpretation: The independent variable, outcome expectations of the senior secondary school students, predicts Choice Goals moderately, with a simple linear regression coefficient R , 0.536, and the coefficient of determination R square 0.287. This indicates that 28.7% variation in Choice Goals is explained by the predictor variable outcome expectations for a unit change in it. The simple linear regression coefficient R is significant since the p -value = $<.001$ is lesser than the level of significance $\alpha = 0.01$, under an estimated F value of 227.694 for degree of freedom $df = (1,566)$. The null hypothesis H_0 , that there is no predictive role of outcome expectations on Choice Goals in senior secondary school students stands rejected.

$$(\text{Choice Goals}) = 1.455 + 0.536 (\text{Outcome Expectations}).$$

Here, the regression coefficient (β_1) was found to be 0.536, indicating the slope. The p -value for this coefficient was $<.000$ indicating high level of significance. Hence, the independent variable VOE predicts the dependent variable Choice Goals in senior secondary school students strongly statistically significantly. The result is in conjunction with Lee and Mujtaba (2017) study which highlighted that positive expectation regarding the salary; personal satisfaction and achievement and job security in STEM related career strongly predicts the career planning, aspirations and objectives towards STEM pathways. Practically, the result holds that when the senior secondary school students expect outcomes when pursuing actions related to their career goals and development, it simulates the growth in specific aspirations and objectives regarding their career paths.

4.4.6 Summary of Interpretations of Regression Analyses

The regression analyses reveal insightful relationships between personality traits and various dependent variables like Choice Goals, CDMSE, and VOE. Key findings include:

1. Openness has positive, moderate and significant effects on Choice Goals, CDMSE, and very strong impact on VOE. This implies that those who are more open are more inclined to have clearer goals, stronger decision-making efficacy, and higher perceived value of education.
2. Conscientiousness has positive, moderate and significant effects on Choice Goals, CDMSE, and very strong impact on VOE. This indicates

individuals who strive to work well and thoroughly do possess a clear goal, belief in their career related decisions and form feasible outcome expectations from their callings.

3. Extroversion has positive, moderate and significant effects on Choice Goals, CDMSE, and very strong impact on VOE, reinforcing the idea that extroverted individuals tend to pursue their goals related to work and have beliefs related to making decisions related to career fueled by strong expectations from the rewards of their career.
4. Agreeableness has positive, moderate and significant effects on Choice Goals, CDMSE, and very strong impact on VOE, suggesting that agreeable individuals tend to align their personal decisions and expectations from the career output with their future goals well.
5. Neuroticism has positive, moderate and significant effects on Choice Goals, CDMSE, and very strong impact on VOE in the context of Tripura state adolescent students. This implies that these students may develop neurotic traits due to reality prevailing around them, and driven by the discomfort associated with this very state, they are motivated to strive for career mobility through goal-directed behaviors, self-beliefs related to career related decisions and strong expectations from the outcomes of a vocation of choice.
6. The relationship between CDMSE and Choice Goals was moderately strong, explaining a substantial portion of the variance, suggesting that individuals who feel more confident in their career decision-making tend to have clearer, more defined goals.
7. The relationship between VOE and Choice Goals was moderately strong, explaining a substantial portion of the variance, suggesting that individuals who have specific expectations from their career's output tend to have clearer, more defined goals.

In conclusion, personality traits play an important part in determining how people set goals, make decisions, and feel about what they can get on following a vocation. These results demonstrate the significance of personality in determining professional success, with certain traits having a greater impact than others.

4.5 Mediation Analysis

4.5.1 Personality and Choice Goals, with Career Decision Making Self Efficacy (CDMSE) as a mediator.

Objective-11: To study the mediating roles Career Decision Making Self-Efficacy in secondary school student.

H₀11: There is no significant mediating role of Career Decision Making Self-Efficacy on the predictive relationship of Personality on Choice Goals in secondary school student.

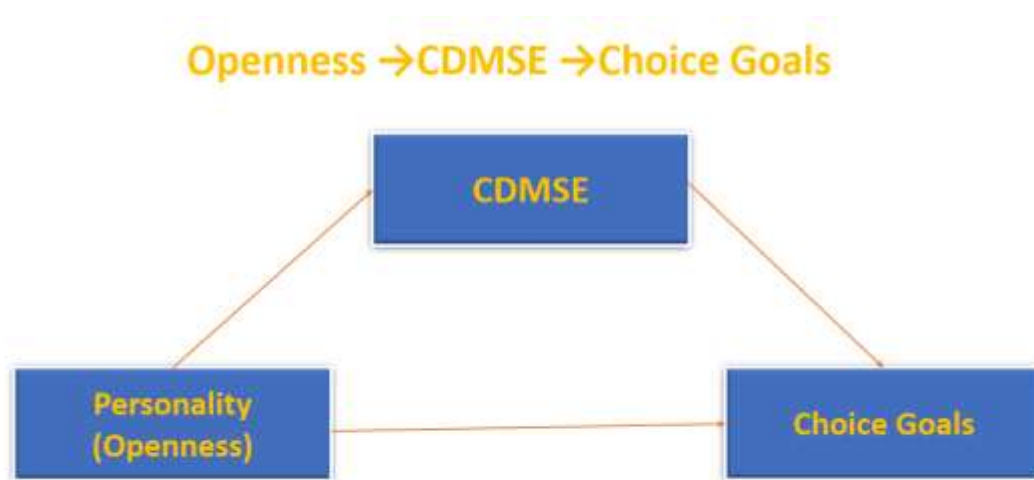


Fig 4.8 Mediation Analysis (Openness → CDMSE → Choice Goals)

Table 4.26 Mediation Analysis (Openness → CDMSE → Choice Goals)

Mediation Estimates								
				95% Confidence Interval				
Effect	Label	Estimate	SE	Lower	Upper	Z	p	% Mediation
Indirect	a*b	0.258	0.0335	0.192	0.323	7.7	< .01	43
Direct	c	0.342	0.0538	0.236	0.447	6.35	< .01	57
Total	c + a*b	0.6	0.0485	0.504	0.695	12.3	< .01	100

						5	01	
Path Estimates								
				95% Confidence Interval				
	Label	Estimate	SE	Lower	Upper	Z	p	
Openness -> CDMSE	a	0.523	0.0346	0.456	0.591	15.11	< .001	
CDMSE -> Choice Goals	b	0.492	0.055	0.385	0.6	8.95	< .001	
Openness - >Choice Goals	c	0.342	0.0538	0.236	0.447	6.35	< .001	
Estimate Plot								
Estimate Plot Effect Indirect Direct Total Estimate 0.0 0.2 0.4 0.6 colour								

Interpretation: The mediation estimates indicate that the indirect effect ($a \times b$) of Openness on Choice Goals through CDMSE is significant, with an estimate of 0.258 and a 99% confidence interval of 0.192 to 0.323. This indirect effect accounts for 43% of the total effect, suggesting that CDMSE is a partial mediator. The direct effect (c) of Openness on Choice Goals has a p-value of less than 0.001 as well as an estimate

0.342, suggesting that Openness does significantly influence Choice Goals primarily through CDMSE and accounts for 57% of the total effect.

The path estimates show that Openness significantly predicts CDMSE ($a = 0.523$, $p < .001$), and CDMSE significantly predicts Choice Goals ($b = 0.492$, $p < .001$). Finally, the direct path from Openness to Choice Goals (c) is also significant ($c=0.342$, $p < .001$). This shows it CDMSE partially mediates the effect of Openness personality type on Choice Goals, as graphically shown by the above estimate plot.

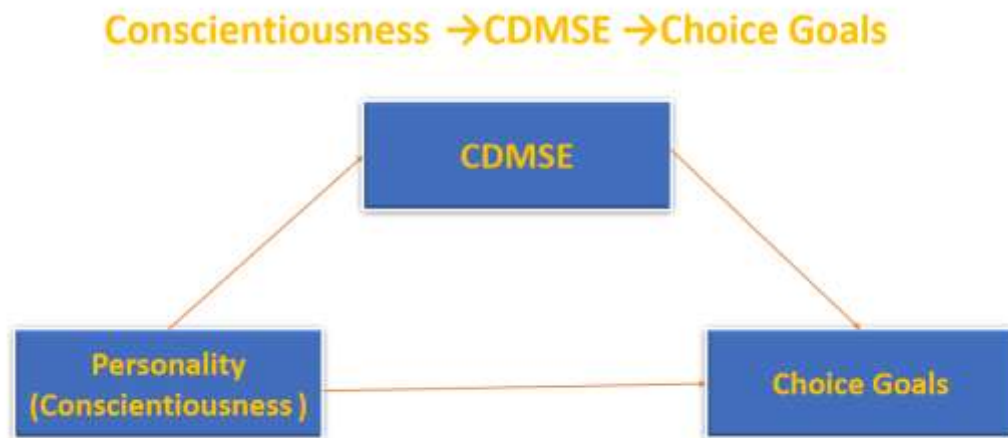


Fig: 4.9 Mediation Analyses (Conscientiousness → CDMSE → Choice Goals)

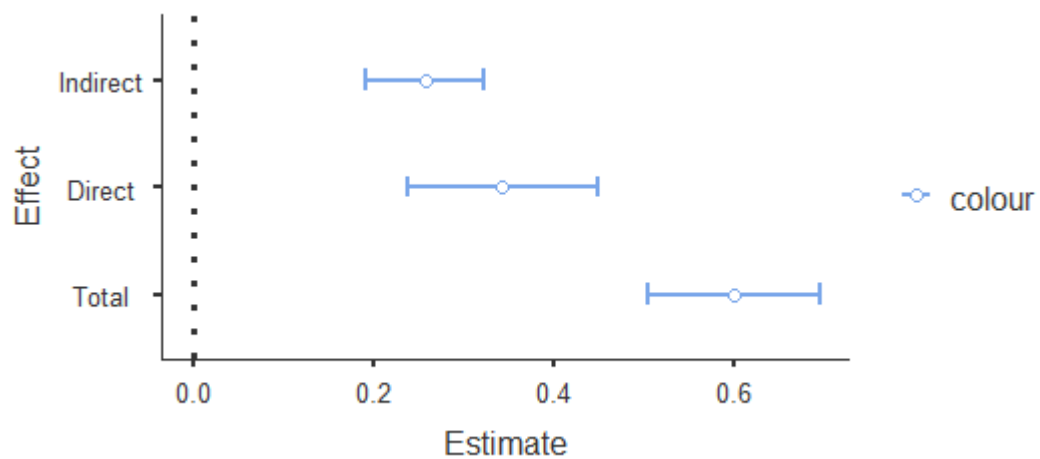
Table 4.27 Mediation Analysis (Conscientiousness → CDMSE → Choice Goals)

Mediation Estimates								
				95% Confidence Interval				
Effect	Label	Estimate	SE	Lower	Upper	Z	p	% Mediation
Indirect	a*b	0.257	0.0334	0.191	0.322	7.7	< .001	42.8
Direct	c	0.343	0.0537	0.237	0.448	6.38	< .001	57.2
Total	c + a*b	0.599	0.0485	0.504	0.694	12.37	< .001	100
Path Estimates								

				95% Confidence Interval			
	Label	Estimate	SE	Lower	Upper	Z	p
Conscientiousness -> CDMSE	a	0.522	0.0346	0.454	0.59	15.06	< .001
CDMSE -> Choice Goals	b	0.492	0.055	0.384	0.6	8.95	< .001
Conscientiousness -> Choice Goals	c	0.343	0.0537	0.237	0.448	6.38	< .001

Estimate Plot

1.1 Estimate Plot



Interpretation: The mediation estimates reveal that the indirect effect ($a \times b$) of Conscientiousness on Choice Goals through CDMSE is significant, with an estimate of 0.257 and a 99% confidence interval of (0.191, 0.322). This indirect effect accounts for 42.8% of the total effect, indicating that CDMSE mediates, in part, the connection between Choice Goals and Conscientiousness. Additionally noteworthy is the direct impact (c) of conscientiousness on choice goals, with an estimate of 0.343 and a p-value less than .001, showing that Conscientiousness has a direct influence on Choice Goals as well, which represents the 57.2% of the total effect.

The path estimates show that Conscientiousness significantly predicts CDMSE ($a = 0.522$, $p < .001$), and CDMSE significantly predicts Choice Goals ($b = 0.492$, $p < .001$). The direct path from Conscientiousness to Choice Goals (c) with estimate 0.343 is also significant ($p < .001$). These findings imply that direct and indirect pathways are important in understanding how Conscientiousness affects Choice Goals, with CDMSE playing a key mediating role partially, as graphically shown by the above estimate plot.

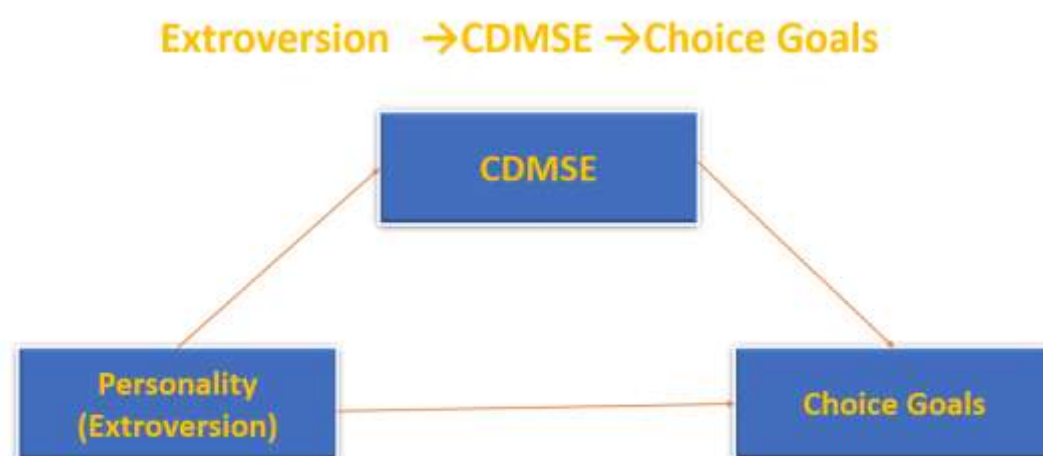


Fig: 4.10 Mediation Analyses (Extroversion → CDMSE → Choice Goals)

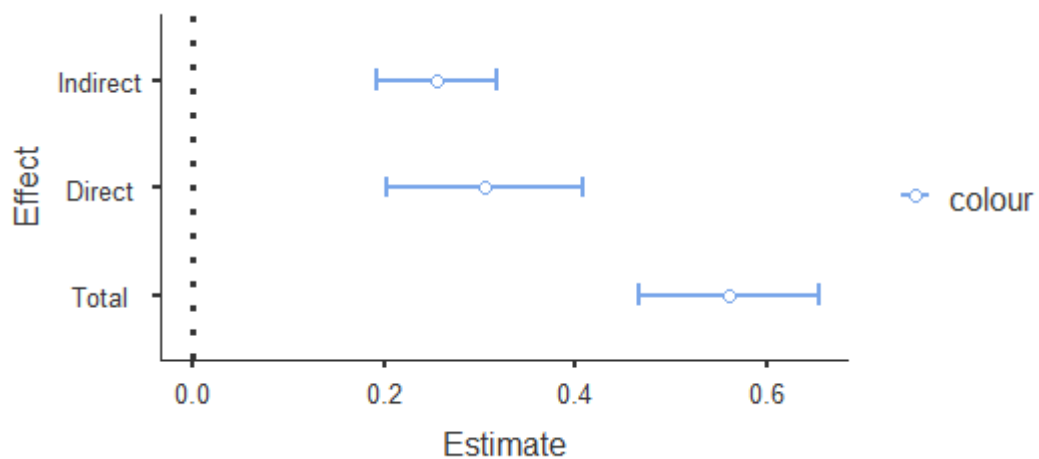
Table 4.28 Mediation Analysis (Extroversion → CDMSE → Choice Goals)

Mediation Estimates								
				95% Confidence Interval				
Effect	Label	Estimate	SE	Lower	Upper	Z	p	% Mediation
Indirect	$a*b$	0.255	0.0324	0.192	0.319	7.88	$< .001$	45.5
Direct	c	0.306	0.0523	0.204	0.408	5.85	$< .001$	54.5
Total	$c + a*b$	0.561	0.048	0.467	0.655	11.7	$< .001$	100
Path Estimates								
				95%				

				Confidence Interval			
	Label	Estimate	SE	Lower	Upper	Z	p
Extroversion - > CDMSE	a	0.497	0.0342	0.43	0.564	14.52	< .001
CDMSE -> Choice Goals	b	0.513	0.0547	0.406	0.62	9.38	< .001
Extroversion - > Choice Goals	c	0.306	0.0523	0.204	0.408	5.85	< .001

Estimate Plot

1.2 Estimate Plot



Interpretation: The mediation estimates show that the indirect effect ($a \times b$) of Extroversion on Choice Goals through CDMSE is significant, with an estimate of 0.255 and a 99% confidence interval of 0.192 to 0.319. This indirect effect accounts for 45.5% of the total effect, indicating that CDMSE is a substantial but partial mediator. The direct effect (c) of Extroversion on Choice Goals is also significant, with estimate of 0.306 and highly significant p-value of less than .001, accounting for 54.5% of the total effect, which show that CDMSE is the partial mediator through which extroversion influences choice goals.

The path estimates indicate that Extroversion significantly predicts CDMSE ($a = 0.497$, $p < .001$), and CDMSE significantly predicts Choice Goals ($b = 0.513$, $p < .001$). Moreover, the direct path from Extroversion to Choice Goals (c) is also significant with estimate 0.306 and p value less than .001. These results support the partial mediation model, where CDMSE partially mediates the effect of Extroversion on Choice Goals, as graphically shown by the above estimate plot.

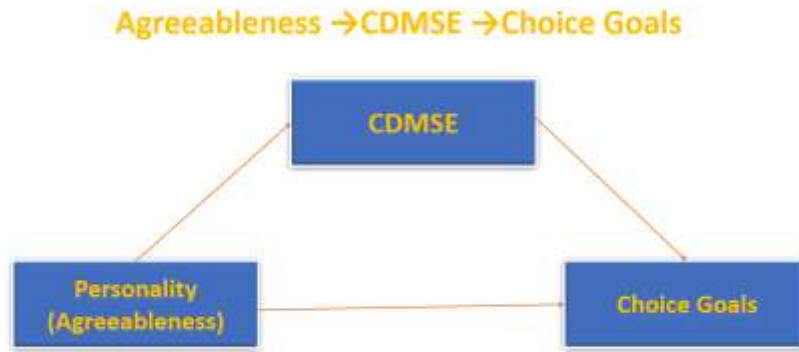


Fig 4.11 Mediation Analysis (Agreeableness → CDMSE → Choice Goals)

Table 4.29 Mediation Analysis (Agreeableness → CDMSE → Choice Goals)

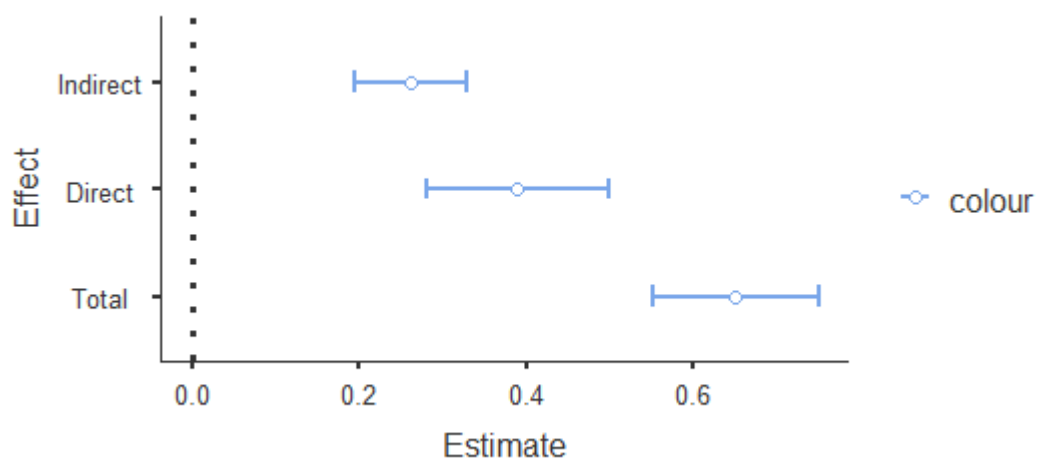
Mediation Estimates								
				95% Confidence Interval				
Effect	Label	Estimate	SE	Lower	Upper	Z	p	% Mediation
Indirect	a x b	0.262	0.0346	0.194	0.329	7.57	<0.001	40.2
Direct	c	0.390	0.0561	0.280	0.500	6.94	<0.001	59.8
Total	c + a x b	0.651	0.0507	0.552	0.751	12.85	<0.001	100.0
Path Estimates								
				95% Confidence Interval				

	Label	Estimate	SE	Lower	Upper	Z	p
Agreeableness -> CDMSE	a	0.546	0.0366	0.475	0.618	14.93	<0.001
CDMSE -> Choice Goals	b	0.479	0.0545	0.372	0.586	8.79	<0.001
Agreeableness -> Choice Goals	c	0.390	0.0561	0.280	0.500	6.94	<0.001

Estimate Plot

1.3 Estimate Plot

1.4 Estimate Plot



Interpretation: The mediation estimates indicate that the indirect effect ($a \times b$) of Agreeableness on Choice Goals through CDMSE is significant, with an estimate of 0.262 as well as a 99% confidence interval of 0.194 to 0.329. This indirect effect accounts for 40.2% of the total effect, suggesting that CDMSE is a partial mediator. The direct effect (c) of Agreeableness on Choice Goals is significant with estimate 0.39 and p-value less than .001 accounting for 59.8% of the total effect. Hence, Agreeableness influences Choice Goals partially through CDMSE.

The path estimates show that Agreeableness significantly predicts CDMSE ($a = 0.546$, $p < .001$), and CDMSE significantly predicts Choice Goals ($b = 0.479$, $p < .001$). Moreover, the direct path from Agreeableness to Choice Goals (c) is significant with estimate 0.39 and p value less than 0.001. These results support the mediation model, where CDMS partially mediates the effect of Agreeableness on Choice Goals, as graphically shown by the above estimate plot.

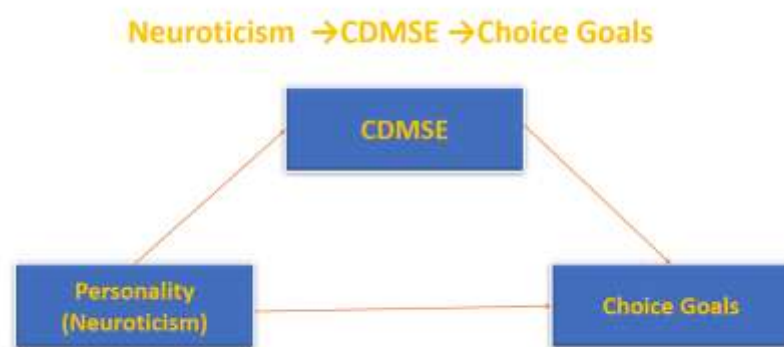


Fig 4.12 Mediation Analysis (Neuroticism → CDMSE → Choice Goals)

Table 4.30 Mediation Analysis (Neuroticism → CDMSE → Choice Goals)

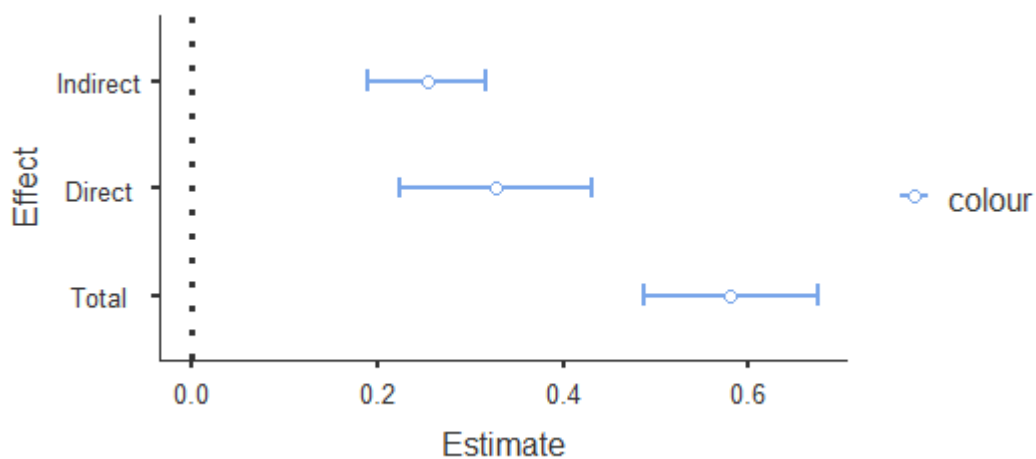
Mediation Estimates								
				95% Confidence Interval				
Effect	Label	Estimate	SE	Lower	Upper	Z	p	% Mediation
Indirect	a*b	0.253	0.0327	0.189	0.317	7.75	<0.001	43.6
Direct	c	0.327	0.0526	0.224	0.430	6.22	<0.001	56.4
Total	c + a*b	0.581	0.0477	0.487	0.674	12.18	<0.001	100.0
Path Estimates								
				95% Confidence Interval				
	Label	Estimate	SE	Lower	Upper	Z	p	

		e					
Neuroticism - > CDMSE	a	0.509	0.0340	0.442	0.575	14.95	< .001
CDMSE -> Choice Goals	b	0.498	0.0549	0.390	0.606	9.06	< .001
Neuroticism - > Choice Goals	c	0.327	0.0526	0.224	0.430	6.22	< .001

Estimate Plot

1.5

1.6 Estimate Plot



Interpretation: The mediation estimates indicate that the indirect effect ($a \times b$) of Neuroticism on Choice Goals through CDMSE is significant, with an estimate of 0.253 and a 99% confidence interval of 0.189 to 0.317. This indirect effect accounts for 43.6% of the total effect, suggesting that CDMSE partially mediates the association between neuroticism and choice goals. The direct effect (c) of Neuroticism on Choice Goals is also significant, with an estimate of 0.327 and a p-value of less than .001, indicating that Neuroticism has a direct influence on Choice Goals as well, accounting for 56.4% of the total effect.

The path estimates show that Neuroticism significantly predicts CDMSE ($a = 0.509$, p value less than .001), and CDMSE significantly predicts Choice Goals ($b = 0.498$, $p < .001$). The direct path from Neuroticism to Choice Goals (c) is also significant with an estimate of 0.327 and (p value less than 0.001). These findings imply that direct and indirect pathways are important in understanding how Neuroticism affects Choice Goals, with CDMSE playing a key partial mediating role, as graphically shown by the above estimate plot. However, the context-specific mediation result of neuroticism, choice goals and CDMSE obtained in this study requires replication in politically, geographically, economically and socially contexts similar to Tripura state.

4.5.2 Personality and Choice Goals, with Vocational Outcome Expectation (VOE) as a mediator.

Objective-11: To study the mediating roles Vocational Outcome Expectation in senior secondary school student.

H₀11: There is no significant mediating role of Vocational Outcome Expectation on the predictive relationship of Personality on Choice Goals in secondary school student.

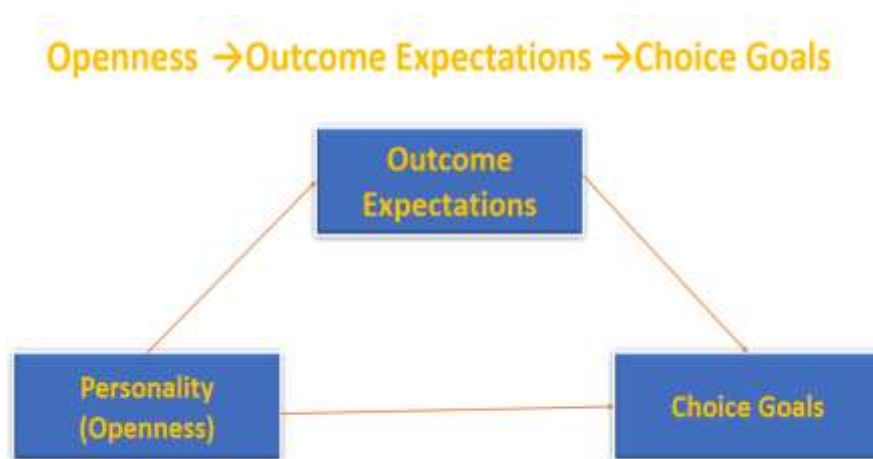


Fig 4.13 Mediation Analysis (Openness → VOE → Choice Goals)

Table 4.31 Mediation Analysis (Openness → VOE → Choice Goals)

Mediation Estimates							
				95% Confidence			

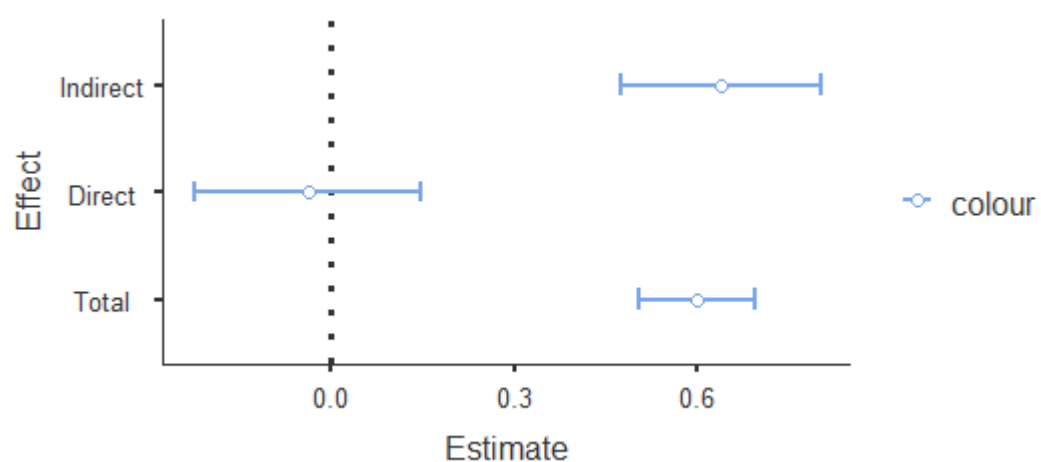
				Interval				
Effect	Label	Estimate	SE	Lower	Upper	Z	p	% Mediation
Indirect	a*b	0.6366	0.0836	0.473	0.8	7.618	< .001	94.51
Direct	c	-0.037	0.0943	-0.222	0.148	-0.392	0.695	5.49
Total	c +a*b	0.5996	0.0485	0.504	0.695	12.355	< .001	100.0

Path Estimates

				95% Confidence Interval			
	Label	Estimate	SE	Lower	Upper	Z	p
Openness -> VOE	a	0.7639	0.018	0.729	0.799	42.445	< .001
VOE -> Choice Goals	b	0.8333	0.1076	0.622	1.044	7.744	< .001
Openness -> Choice Goals	c	-0.037	0.0943	-0.222	0.148	-0.392	0.695

Estimate Plot

1.7 Estimate Plot



Interpretation: According to the mediation study, the indirect influence ($a \times b$) of Openness on Choice Goals through VOE is significant, with an estimate of 0.636 and 99% confidence interval ranging from 0.473 to 0.8. This indirect effect accounts for 94.51% of the total effect. The direct effect (c) of Openness on Choice Goals is non-significant, with p-value = 0.695, way higher than the level of significance 0.01. It implies that vocational outcome expectations variable completely mediates the influence of openness to experience personality type on choice goals, as graphically shown by the above estimate plot.

The path estimates reveal that Openness significantly predicts VOE (a) with an estimate of 0.763, and VOE significantly predicts Choice Goals (b) with an estimate of 0.833. Both paths have p-values less than .001, indicating strong statistical significance. The direct path from Openness to Choice Goals (c) is non-significant, with p-value 0.695, indicating no direct influence of Openness on Choice Goals.

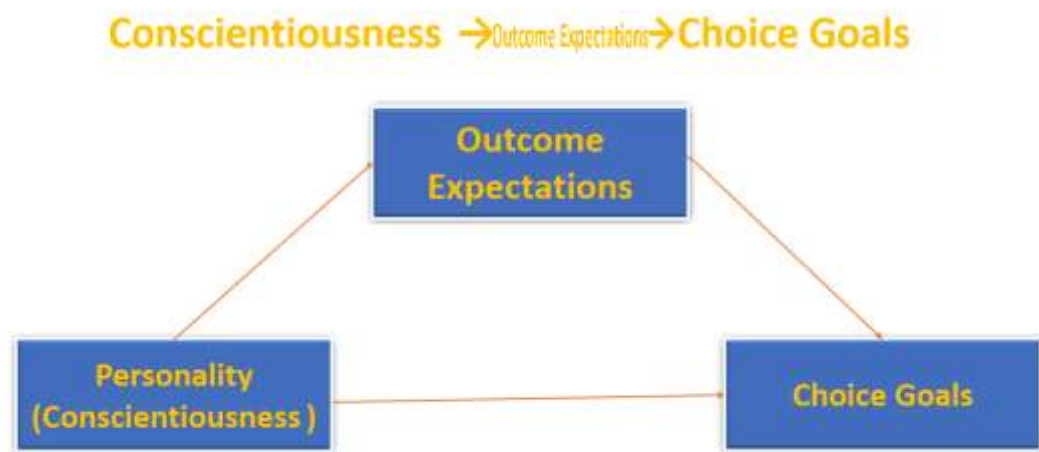


Fig: 4.14 Mediation Analyses (Conscientiousness → VOE → Choice Goals)

Table 4.32 Mediation Analysis (Conscientiousness → VOE → Choice Goals)

Mediation Estimates								
				95% Confidence Interval				
Effect	Label	Estimate	SE	Lower	Upper	Z	p	% Mediation

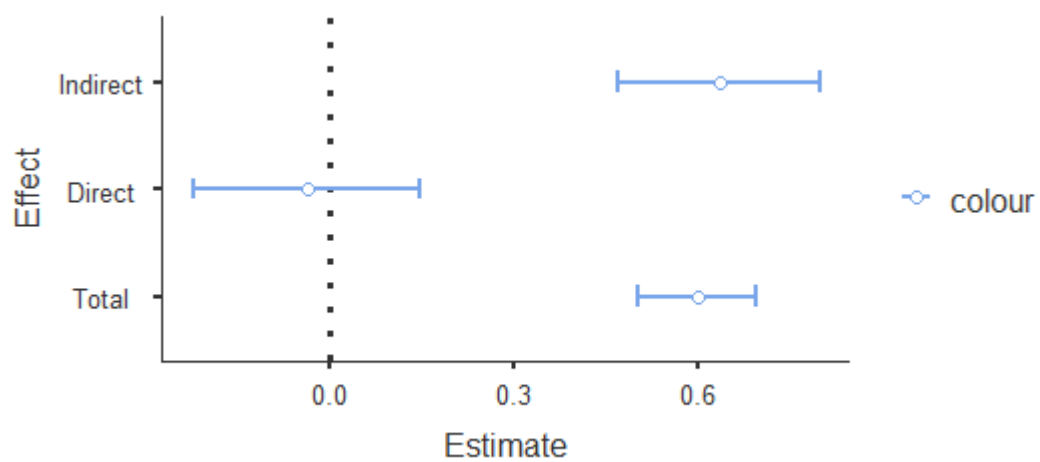
Indirect	a*b	0.6347	0.0835	0.471	0.798	7.602	< .001	94.73
Direct	c	-0.0353	0.0942	-0.220	0.149	-0.375	0.708	5.27
Total	c +a*b	0.5994	0.0485	0.504	0.694	12.36 6	< .001	100

Path Estimates

				95% Confidence Interval			
	Label	Estimate	SE	Lower	Upper	Z	p
Conscientiousness -> VOE	a	0.7632	0.0180	0.728	0.798	42.458	< .001
VOE -> Choice Goals	b	0.8317	0.1076	0.621	1.043	7.727	< .001
Conscientiousness -> Choice Goals	c	-0.0353	0.0942	-0.220	0.149	-0.375	0.708

Estimate Plot

1.8 Estimate Plot



According to the mediation study, the indirect influence ($a \times b$) of Conscientiousness on Choice Goals through VOE is significant, with an estimate of 0.634 and 99% confidence interval ranging from 0.471 to 0.798. This indirect effect accounts for 94.73% of the total effect. The direct effect (c) of Conscientiousness on Choice Goals is non-significant, with p -value = 0.708, way higher than the level of significance 0.01. It implies that vocational outcome expectations variable completely mediates the influence of Conscientiousness to experience personality type on choice goals, as graphically shown by the above estimate plot.

The path estimates reveal that Conscientiousness significantly predicts VOE (a) with an estimate of 0.763, and VOE significantly predicts Choice Goals (b) with an estimate of 0.831. Both paths have p -values less than .001, indicating strong statistical significance. The direct path from Conscientiousness to Choice Goals (c) is non-significant, with p -value 0.708, indicating no direct influence of Conscientiousness on Choice Goals.

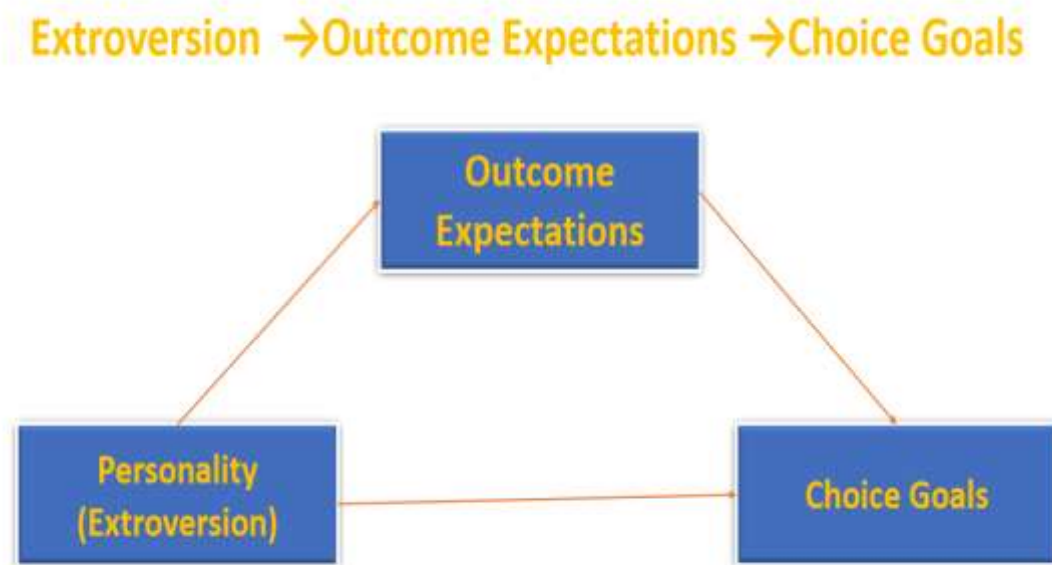
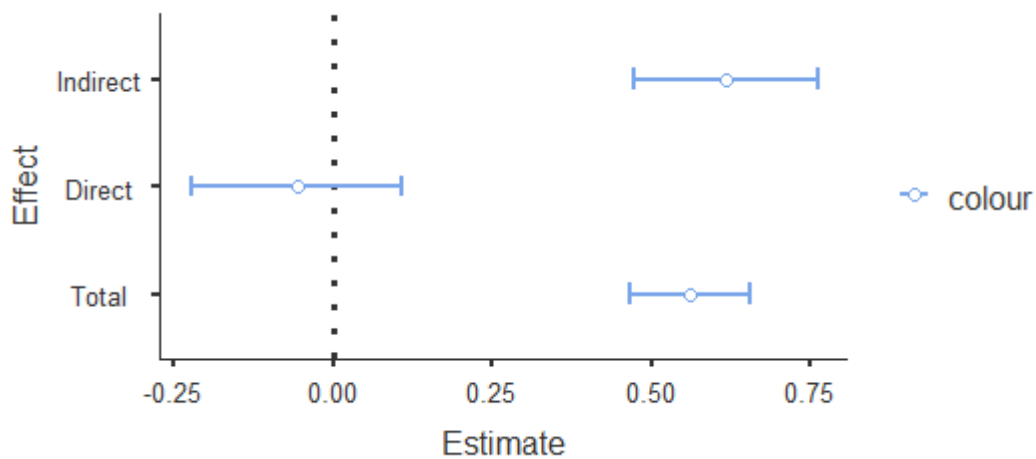


Fig 4.15 Mediation Analysis (Extroversion → VOE → Choice Goals)

Table 4.33 Mediation Analysis (Extroversion → VOE → Choice Goals)

Mediation Estimates								
				95% Confidence Interval				
Effect	Label	Estimate	SE	Lower	Upper	Z	p	% Mediation
Indirect	a*b	0.6177	0.0735	0.474	0.762	8.409	< .001	91.59
Direct	c	-0.0567	0.0846	-0.223	0.109	-0.67	0.503	8.41
Total	c +a*b	0.561	0.048	0.467	0.655	11.697	< .001	100
Path Estimates								
				95% Confidence Interval				
	Label	Estimate	SE	Lower	Upper	Z	p	
Extroversion - > VOE	a	0.7246	0.0191	0.687	0.762	37.848	< .001	
VOE -> Choice Goals	b	0.8526	0.0989	0.659	1.046	8.625	< .001	
Extroversion - > Choice Goals	c	-0.0567	0.0846	-0.223	0.109	-0.67	0.503	
Estimate Plot								

1.9 Estimate Plot



Interpretation: According to the mediation study, the indirect influence ($a \times b$) of Extroversion on Choice Goals through VOE is significant, with an estimate of 0.617 and 99% confidence interval ranging from 0.474 to 0.762. This indirect effect accounts for 91.59% of the total effect. The direct effect (c) of Extroversion on Choice Goals is non-significant, with p -value = 0.503, way higher than the level of significance 0.01. It implies that vocational outcome expectations variable completely mediates the influence of Extroversion personality type on choice goals, as graphically shown by the above estimate plot.

The path estimates reveal that Extroversion significantly predicts VOE (a) with an estimate of 0.724, and VOE significantly predicts Choice Goals (b) with an estimate of 0.852. Both paths have p -values less than .001, indicating strong statistical significance. The direct path from Extroversion to Choice Goals (c) is non-significant, with p -value 0.503, indicating no direct influence of Extroversion on Choice Goals.

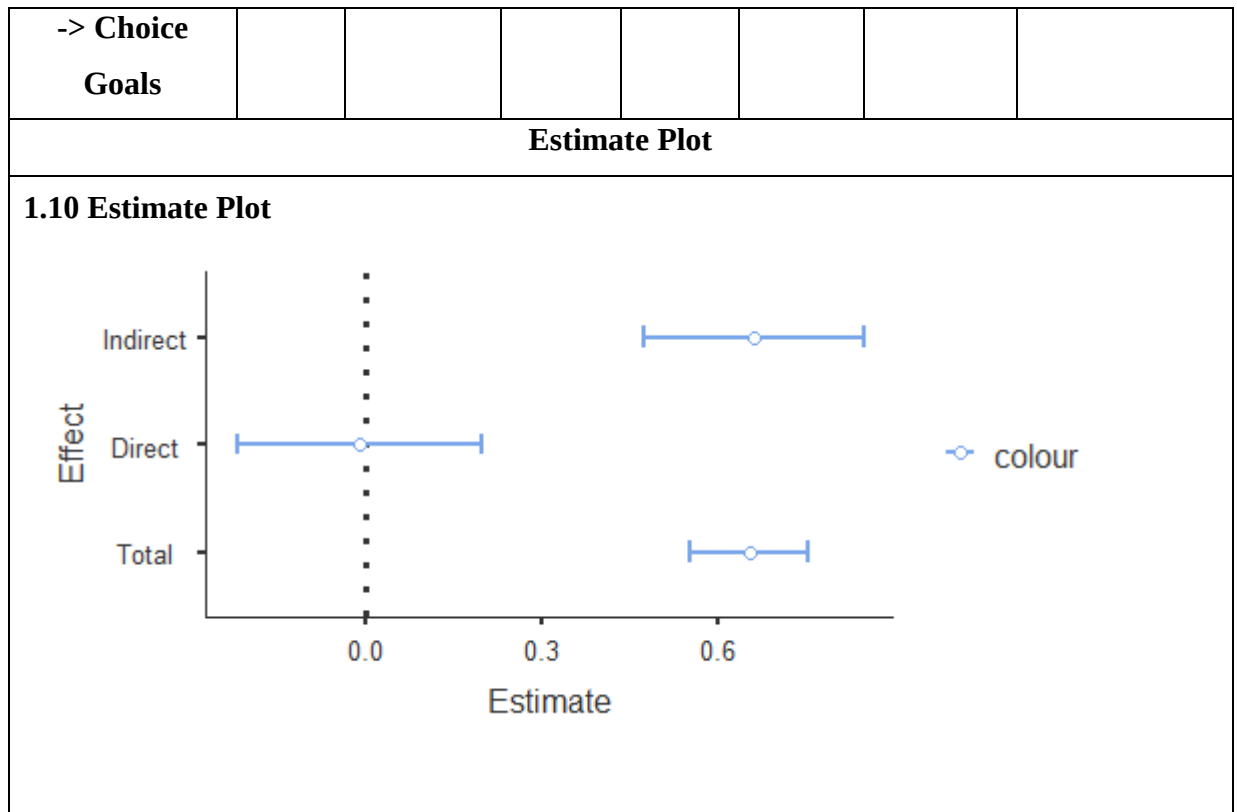
Agreeableness → Outcome Expectations → Choice Goals



Fig 4.16 Mediation Analysis (Agreeableness → VOE → Choice Goals)

Table 4.34 Mediation Analysis (Agreeableness → VOE → Choice Goals)

Mediation Estimates								
				95% Confidence Interval				
Effect	Label	Estimate	SE	Lower	Upper	Z	p	% Mediation
Indirect	a*b	0.65901	0.0952	0.473	0.846	6.9255	< .001	98.83
Direct	c	-0.0078	0.1059	-0.215	0.2	-0.0736	0.941	1.17
Total	c +a*b	0.65121	0.0507	0.552	0.751	12.8518	< .001	100
Path Estimates								
				95% Confidence Interval				
	Label	Estimate	SE	Lower	Upper	Z	p	
Agreeableness -> VOE	a	0.81964	0.0178	0.785	0.854	46.1209	< .001	
VOE -> Choice Goals	b	0.80403	0.1148	0.579	1.029	7.0049	< .001	
Agreeableness	c	-0.0078	0.1059	-0.215	0.2	-0.0736	0.941	



Interpretation: According to the mediation study, the indirect influence ($a \times b$) of Agreeableness on Choice Goals through VOE is significant, with an estimate of 0.659 and 99% confidence interval ranging from 0.473 to 0.846. This indirect effect accounts for 98.83% of the total effect. The direct effect (c) of Agreeableness on Choice Goals is non-significant, with p-value = 0.941, way higher than the level of significance 0.01. It implies that vocational outcome expectations variable completely mediates the influence of Agreeableness personality type on choice goals, as graphically shown by the above estimate plot.

The path estimates reveal that Agreeableness significantly predicts VOE (a) with an estimate of 0.819, and VOE significantly predicts Choice Goals (b) with an estimate of 0.804. Both paths have p-values less than .001, indicating strong statistical significance. The direct path from Agreeableness to Choice Goals (c) is non-significant, with p-value 0.941, indicating no direct influence of Agreeableness on Choice Goals.

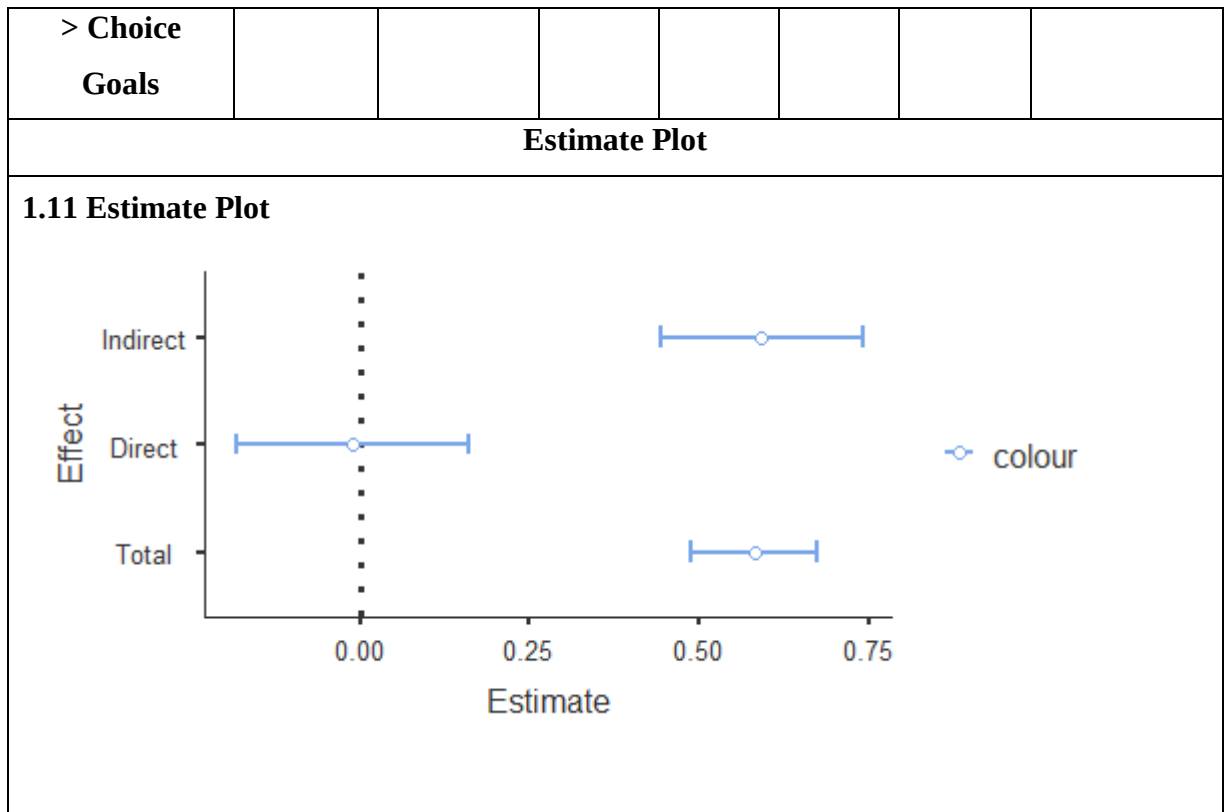
Neuroticism → Outcome Expectations → Choice Goals



Fig 4.17 Mediation Analysis (Neuroticism → OE → Choice Goals)

Table 4.35 Mediation Analysis (Neuroticism → OE → Choice Goals)

Mediation Estimates								
				95% Confidence Interval				
Effect	Label	Estimate	SE	Lower	Upper	Z	p	% Mediation
Indirect	a*b	0.5919	0.0758	0.443	0.74	7.81	< .001	98.14
Direct	c	-0.0112	0.0869	-0.182	0.159	-0.129	0.898	1.86
Total	c + a*b	0.5807	0.0477	0.487	0.674	12.182	< .001	100
Path Estimates								
				95% Confidence Interval				
	Label	Estimate	SE	Lower	Upper	Z	p	
Neuroticism -> VOE	a	0.7329	0.0187	0.696	0.77	39.154	< .001	
VOE -> Choice Goals	b	0.8077	0.1013	0.609	1.006	7.97	< .001	
Neuroticism -> Choice Goals	c	-0.0112	0.0869	-0.182	0.159	-0.129	0.898	



Interpretation: According to the mediation study, the indirect influence ($a \times b$) of Neuroticism on Choice Goals through VOE is significant, with an estimate of 0.591 and 99% confidence interval ranging from 0.473 to 0.846. This indirect effect accounts for 98.14% of the total effect. The direct effect (c) of Neuroticism on Choice Goals is non-significant, with p-value = 0.898, way higher than the level of significance 0.01. It implies that vocational outcome expectations variable completely mediates the influence of Neuroticism personality type on choice goals, as graphically shown by the above estimate plot.

The path estimates reveal that Neuroticism significantly predicts VOE (a) with an estimate of 0.732, and VOE significantly predicts Choice Goals (b) with an estimate of 0.807. Both paths have p-values less than .001, indicating strong statistical significance. The direct path from Neuroticism to Choice Goals (c) is non-significant, with p-value 0.898, indicating no direct influence of Neuroticism on Choice Goals. However, the context-specific mediation result of neuroticism, VOE and choice goals obtained in this study requires replication in politically, geographically, economically and socially contexts similar to Tripura state.

4.5.3 Overall Interpretations of Two Key Mediating Factors: Career Decision-Making Self-Efficacy (CDMSE) and Vocational Outcome Expectations (VOE)

Considering the outcomes of the two mediating variables the results can be interpreted as the following:

The mediation analyses across five personality traits (Openness, Conscientiousness, Extroversion, Agreeableness, & Neuroticism) reveal two key mediating factors: CDMSE and VOE - that play essential roles in explaining how these traits influence Choice Goals.

4.5.3.1 CDMSE as a Mediator

CDMSE partially mediates the relationship between personality traits and choice goals. Specifically:

- Openness, Conscientiousness, Extroversion, Agreeableness and Neuroticism show that their influence on Choice Goals is partially mediated by CDMSE, with indirect effects accounting for over 40.2 to 45.5% of the total effect.
- The direct effects are even more significant, implying that these traits influence choice goals to a considerable extent independently with effects ranging from 54.5 to 59.8% of the total effect.

4.5.3.2 VOE as a Mediator

VOE also serves as a key mediator but its influence is more trait-dependent:

- Openness, Conscientiousness, Extroversion, Agreeableness, and Neuroticism show significant indirect effects through VOE, indicating that these traits affect vocational outcome expectations completely, which in turn influence choice goals. The percentage of mediation through VOE ranges from 91.59 - 98.83% of the total effect. These results suggest that for these traits, VOE is the only meaningful pathway to understanding their impact on choice goals.
- The direct effect of these traits on choice goals does not exist.

4.5.3.3 Comparison of Mediators

- VOE plays a more robust and consistent mediating role across all traits compared to CDMSE. VOE explains a higher proportion of the indirect effects in most cases, suggesting that the expectations from a career's

outcome are a central mechanism through which personality traits influence career-related goals.

- CDMSE serves as a partial mediating factor, while studying the impact of all personality traits on choice goals.

Conclusion: The results of the study in the light of data analysis were presented in this chapter along with their interpretations towards the attainment of the research objectives. The next chapter discusses overview of the study, primary finding and secondary findings, their educational implications, limitations, recommendations, suggestions for future studies and the conclusion.

CHAPTER-V

CONCLUSIONS, EDUCATIONAL IMPLICATIONS, RECOMMENDATIONS, LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

5.1 Introduction

The previous chapter the collected data was analyzed to reveal the quantitative achievement of the objectives of this study. In this chapter, the researcher discusses overview of the study, primary finding and secondary findings, their educational implications, limitations, recommendations, suggestions for future studies and the conclusion.

5.2 Overview of the Study

The researcher has been serving the education sector of his home state for several years as a government official and saw the ad hoc nature in which the adolescents of his state either responded to the questions related to the future career or designed their career path. The persona of the adolescents always fascinated the researcher and he wanted to explore the psychological variables which play a critical role in the shaping of career related goals in the young adults. This pertinent query seeded the origin of the present study. The exercise commenced with thorough literature review to understand the theoretical foundations of career psychology field in the form of a detailed analysis of the Social cognitive career theory. Based on the identified gap from the literature appropriate objectives and hypotheses of the study were framed. The need and significance of the study were explored in the successive endeavors along with the searching of the appropriate tools which had either strong theoretical underpinning or were developed to study the career psychology characteristics of student community in the local context of India. Descriptive study using survey method under its cross-sectional nature was found appropriate for the collection of the data. The state of Tripura selected for the study was divided into its eight districts and the selection of secondary school students as sample subjects was done using stratified random sampling. The selected tools of the study were adapted as per the local context using rigorous statistical techniques, paving the way for obtained the results of this study in congruence with its objectives. The consequences of the data

analysis and the way forward will be discussed in details in the below sections.

5.3 Conclusions Related to Study Findings

The conclusive analysis of the findings as per the research objectives of the study are discussed below:

5.3.1 Objective 1: To study the relationship between Personality and Choice Goals in senior secondary school students

- The strength of covariance or relationship between the openness to experience, conscientiousness, extroversion, agreeableness and neuroticism types of personality and choice goals in senior secondary school students was found to be moderate in strength and positive in nature, and highly significant.

5.3.2 Objective 2: To study the relationship between Personality and Career Decision Making Self-Efficacy in senior secondary school students

- The strength of covariance or relationship between the openness to experience, conscientiousness, extroversion, agreeableness and neuroticism types of personality and career decision making self-efficacy in senior secondary school students was found to be moderate in strength and positive in nature, and highly significant.

5.3.3 Objective 3: To study the relationship between Career Decision Making Self-Efficacy and Choice Goals in senior secondary school students

- Career decision making self-efficacy shares moderately strong relationship high significant statistically with choice goals trait of senior secondary school students.

5.3.4 Objective 4: To study the relationship between Personality and Outcome Expectations in senior secondary school students

- The strength of covariance or relationship between the openness to experience, conscientiousness, extroversion, agreeableness and neuroticism types of personality and vocational outcome expectations in senior secondary school students was found to be very strong in strength and positive in nature, and highly significant.

5.3.5 Objective 5: To study the relationship between Outcome Expectations and Choice Goals in senior secondary school students

- The trait vocational outcome expectations is found to have moderately strong and positive covariance with choice goals which is statistically highly significant in 11th and 12th graders of Tripura state.

5.3.6 Objective 6: To study the predictive role of Personality on Choice Goals in senior secondary school students

- All the five personality types predict the choice goals in senior secondary school students with moderate strength, such that for unit change in these personality types, 21.2%, 21.2%, 19.4%, 22.5% and 20.7% change respectively in choice goals can be observed, in results that are highly significant statistically.

5.3.7 Objective 7: To study the predictive role of Personality on Career Decision Making Self-Efficacy in senior secondary school students

- All the five personality types predict the career decision making self-efficacy in senior secondary school students with moderate strength, such that for unit change respectively in these personality types, 28.7%, 28.5%, 27.1%, 28.2% and 28.2% change respectively in career decision making self-efficacy can be observed, in results that are highly significant statistically.

5.3.8 Objective 8: To study the predictive role of Career Decision Making Self-Efficacy on Choice Goals in senior secondary school students

- The Career decision making self-efficacy trait predicts the choice goals in senior secondary school students with strong strength, such that for unit change in this career decision related self-efficacy, 26.0% change in choice goals can be observed, in a result that is highly significant statistically.

5.3.9 Objective 9: To study the predictive role of Personality on Outcome Expectations in senior secondary school students

- All the five personality types predict the vocational outcome expectations in senior secondary school students with moderate strength, such that for unit change in these personality types, 76%, 76%, 71.6%, 78.9%, 73% and

28.2% change respectively in career decision making self-efficacy can be observed, in results that are highly significant statistically.

5.3.10 Objective 10: To study the predictive role of Outcome Expectations on Choice Goals in senior secondary school students

- The outcome expectations variable predicts the trait of choice goals in senior secondary school students with moderate strength, such that for unit change in the predictor variable, 28.7% change in criteria variable can be observed, in a result that is highly significant statistically.

5.3.11 Objective 11: To study the mediating roles of Career Decision Making Self-Efficacy and Outcome Expectations in Senior Secondary School Students.

- For all the five types of personality, the self-belief related to making career decisions mediates halfway, up to 57%, 57.2%, 54.5%, 59.8% and 56.4% respectively, the determination of career choice goals in 11th and 12th graders.
- In the case of all the five types of personality, the expectations of the vocational outcomes completely mediate up to 94.51%, 94.73%, 91.59%, 98.83% and 98.14% respectively, the determination of career choice goals in 11th and 12th graders.

5.4 Educational Implications of the Research Findings

The above findings suggest the importance of career decision making self-efficacy and especially vocational outcome expectations as the vital career psychology mediators in the formation of effective career goals in accordance with the personality of the senior secondary school students. These findings have implications in the field of secondary level education which are discussed below and are of concern to the students, teachers, principals and administrators:

- i. The findings indicate moderately strong regression relationship of all big five personality types with career decision making self-efficacy in secondary school students. Hence, it would be imperative for the counsellors to include big five personality inventory test in career counselling session so as to design customized guidance to the students. Teachers need to identify the

students with poor career decision making skills and initiate intervention programs in the form of activities, workshops and guest lectures which can enhance the confidence levels of these students with respect to deciding an avenue for future. Pedagogical strategies like collaborative learning can enhance social interactions among students which can further influence all the five personality types in a positive way, and in turn motivate students to decide for careers involving service of people and the society at large.

- ii. Since there is moderately strong predictive relationship of all the five personality types with career choice goals, the teachers need to design classroom activities in alignment with the personality of the students and certain career avenues. Activities like self-assessment, maintaining a journal and mentorship promote self-awareness which is a critical aspect to figuring out the self and setting a goal in career which can do optimal justice which all the skill sets and knowledge in a school student. Teachers must be trained in personality assessment and designing courses in line with 21st century careers or jobs, so that pursuing such subjects in schools can develop career or vocation related identities in these students, which can later translate to career commitment.
- iii. Personality type is found to predict vocational expectations very strongly and significantly. Hence, teachers and parents need to come together in responsibly design a career pathway for the students based on their individual differences with respect to their personality and refrain from stressing on pursuing certain stereotypical professions as future career prospects. They need to appreciate the fact that career crafting for the students is a science and an art in its own right and mere perceptions about careers should not be formed the basis for guiding the students to pursue career aspirations at home and in school alike.
- iv. Career decision making self-efficacy and vocational outcome expectations emerged as important mediators affecting the relationship of personality and career choice goals. It implies that all the administrators should take cognizance of these finding and frame policies involving strict implementation of tasks like measurement, promotion and documentation of these vital career variables among students in the secondary schools.

5.5 Recommendations

Based on the educational implications discussed in the above sections, certain recommendations are made for ushering brighter prospects in senior secondary level school education: Administrators can frame a mandatory policy for the schools to map 21st century careers and job related skills with the syllabus of higher secondary level school subjects.

- i. The schools must maintain a database of students from secondary school level onwards, of the scores of these students obtained in multiple psychological tests conducted fortnightly, comprising of academic and career psychological constructs, like personality, career decision making self-efficacy, vocational outcome expectations and career choice goals.
- ii. In-service teachers must be encouraged to attend guest lectures and workshops, and complete MOOCs online certifications on measurement of personality and career psychology related courses.
- iii. School must establish tie-ups with near-by small and medium scale enterprises which can be preliminary centers of exposure of various skills sets pertaining to many career avenues.
- iv. Integrated teacher education programs must contain a course on career psychology with the famous 5E lesson planning document of instruction of school topics prepared in a way that promotes career decision making self-efficacy in senior secondary school students through the pedagogical strategy of cognitive internship.
- v. Memorandum of understanding can be signed between schools and industries, involving activities like field visits of the teachers to the industry, appointment of industry professionals as visiting resource persons for guest lectures and talks, which can improve the understanding of the students, teachers and the school in general about the vocational expectations of the industry from the future work force.
- vi. Projects given to the students must have acquisition of a career specific skill set as its learning outcome or the report writing tasks must enhance

the child's self-efficacy towards making of career-related decisions.

- vii. Based on the scientific assessment of the personality profiles of these students, the classroom environment should be made inclusive by the teachers, with a strong sense of equity among the learners.
- viii. Instead of forcing the students to follow a bandwagon of certain glorified high paying vocations, the teachers must be allowed to develop career outcome expectations, career identity and career decision making self-efficacy in their students so that they can ultimately work towards the cultivation of commitment towards the chosen career.
- ix. TED Talk sessions given by established professionals can be attended online or offline as per the convenience by the senior secondary school students so as to ignite a goal towards a specific career in line with his or her unique persona.
- x. Children of all types of personalities must be regularly provided a self-actualizing environment in the school avenue by the administrators and the senior teachers along with the encouragement to showcase their talents and take part in multiple career related competitions and events to promote the career psychology variables within their identity.
- xi. Artificial intelligence can be help in processing huge amount of data generated from psychological tests conducted on the senior secondary school students towards the development of a personalized career database of each of these students.
- xii. Analysis of such database of each students by the career experts in 11th and 12th grade can help in suggesting most suited careers for these students in line with their unique persona.
- xiii. Such scientific exercises would rationalize and streamline the career pursuing journey of the school students at tertiary level, leading the display of optimal performance of these students in academic and successive professional lives.

- xiv. NGOs working in the field of skill development can work in tandem with the local schools and state government employment exchange to materialize the discussed recommendations in a collective manner.

5.6 Limitations

The present study contains and encountered certain aspects which make up its limitations as discussed below:

- i. The theoretical underpinning of Social Cognitive Career theory is dated enough to be given a relook in the context of 21st Century careers.
- ii. The number of study variables in this research is only four. There are several other variables closely related to the study variables that are left out.
- iii. The study is primarily conducted in the north eastern state of Tripura which has a distinct geography, economy and culture, different from the way of life in the main land India. Hence, even though the results are highly significant especially in the context of Neuroticism type of personality and its relationship with career psychology variables and considering the effects of geographical psychology in a highly culturally diverse country like India, the findings of this study must be considered with caution.
- iv. The sample subjects mostly belonged to the arts stream, followed by comparatively less number of students from science stream and only two students from the commerce stream of senior secondary level.
- v. The statistical technique of mediation analysis studies the interplay among three variables alone.
- vi. Reliance on self-reported data scales may introduce potential response bias (Rosenman et al., 2011).

5.7 Suggestions for Future Studies

Depending on the above discussed limitations of this study, the following suggestions for future studies in India are made:

- i. Since the country is culturally diverse, the study needs replication in its several other parts of India.
- ii. Qualitative studies can be taken up to explore the newly emerging dimensions of 21st century careers not addressed by the Social Cognitive Career Theory.

- iii. Studies incorporating optimal number of variables can be taken up to gain insights on career related phenomenon in the Indian context, especially in light of the huge demographic dividend of the nation.
- iv. Stream specific studies with larger sample sizes can be taken up to gain domain specific insights related to science, arts and commerce disciplines careers opportunities for senior secondary school students.
- v. Neuroticism was found to have moderate to strong, positive and highly significant correlation and regression relationships with career decision making self-efficacy, vocational outcome expectations and career choice goals in the context of Tripura secondary school students. Considering the economic and geographic profile of the state, which deeply impacted its employability prospects, the obtained results were found to be explained by Self-discrepancy theory of Higgins (1987). However, such a study result is first of its kind and needs replication in sample / population subjects of similar profiles and contexts in India and abroad.
- vi. Advanced statistical techniques which treat the ordinal data type of survey questionnaires as they are, without assuming them to be interval, can be taken up.
- vii. Psychometrically robust instruments, build on the perspectives of geographical psychology must be developed which can measure the career psychology variables in the specific habitat and cultural contexts of the secondary school students in the country.
- viii. Longitudinal study designs are warranted in near future to be taken for tracking the career outcomes of the subjects belonging to the specific habitat and cultural contexts similar to Tripura state.

5.8 Conclusion

India needs to train and prepare its large population of young adults to join the work force, so that they can contribute their share in the Gross Domestic Product (GDP) of the country. The groundwork of such an exercise needs to commence from the school level. However, the manner in which young final years students of schools choose their career avenues in the country is mostly based on trial and error or based on pressure originating from the people in the environment. It is high time that the schools place genuine efforts to streamline the career preparation enterprise based on scientific research and empirical studies. The present study was a humble initiative in this direction from the geographically isolated north eastern state of Tripura in India.

REFERENCES

1. Arias Gonzáles, J. L. (2021). Guía para elaborar la operacionalización de variables. *Espacio I+D: Innovación más Desarrollo*, 10 (28). <https://doi.org/10.31644/IMASD.28.2021.a02>
2. Alabi, O., Bukola, T., Alabi, O., & Bukola, T. (2023). Introduction to Descriptive Statistics. In *Recent Advances in Biostatistics*. IntechOpen. <https://doi.org/10.5772/intechopen.1002475>
3. Abe, & Chikoko, V. (2020). Exploring the factors that influence the career decision of STEM students at a university in South Africa. *International Journal of STEM Education*, 7(1), 60. <https://doi.org/10.1186/s40594-020-00256-x>
4. Abe, E., Chikoko, V., & Lubinga, S. N. (2021). The link between career outcomes expectancy and career decision-making self-efficacy of STEM students in a South African university. *Perspectives in Education*, 39(2), 52–66. <https://doi.org/10.18820/2519593X/pie.v39.i2.5>
5. Abidin, M. H. Z., Amat, S., Mahmud, M. I., Bakar, M. A., & Bakar, A. Y. A. (2019). Career Decision Making Self-Efficacy (CDMSE) among Gifted and Talented Students in Malaysia: An Initial Demographic Study, *Journal of the Education of Gifted Young Scientists*, 7(2), 113-118.
6. Agarwala, T. (2008). Factors influencing career choice of management students in India. *Career Development International*, 13(4), 362–376.
7. Akhsania, K. N., Basuki, T., Sugiharto, D. Y. P., & Japar, M. (2021). Students' career understanding and career decision making self-efficacy in junior high school. *Islamic Guidance and Counseling Journal*, 4(1), 12–20.
8. Akosah-Twumasi, P., Emeto, T. I., Lindsay, D., Tsey, K., & Malau-Aduli, B. S. (2018). A Systematic Review of Factors That Influence Youths Career Choices—The Role of Culture. Alabi, O., Bukola, T., Alabi, O., & Bukola, T. (2023). Introduction to Descriptive Statistics. In *Recent Advances in Biostatistics*. IntechOpen. <https://doi.org/10.5772/intechopen.1002475>
9. Arias, F. (2012). *El proyecto de investigación* (7ª. ed.). Caracas: Editorial

Episteme, C.A.

10. Ali, S. R., McWhirter, E. H., & Chronister, K. M. (2005). Self-Efficacy and Vocational Outcome Expectations for Adolescents of Lower Socioeconomic Status: A Pilot Study. *Journal of Career Assessment*, 13(1), 40–58.<https://doi.org/10.1177/1069072704270273>
11. Arora, R.&Rangnekar, S. (2016). Linking the Big Five personality factors and career commitment dimensions: A study of the Indian organizations. *Journal of Management Development*, 35(10), 1135-1148.
12. Amani, J. (2016). Career Decision-making Self-Efficacy of Higher Education Students in Tanzania: Does Age, Gender, and Year of Study Matter? *Papers in Education and Development*, 36. <https://journals.udsm.ac.tz/index.php/ped/article/view/2522>
13. Ambiel, R.A.M., Noronha, A.P.P. Professional choice self-efficacy: predicting traits and personality profiles in high school students. *Psicol. Refl. Crít.* 29, 30 (2016). <https://doi.org/10.1186/s41155-016-0021-0>
14. APA Dictionary of Psychology. (2018). <https://dictionary.apa.org/>
15. Appling, B., Tuttle, M., Harrell, L., Ellerman, H., & Mabeus, D. (2022). Utilizing Social Cognitive Career Theory to Enhance the Self-Efficacy and Outcome Expectations of Students with Disabilities Through Career Development. *Professional School Counseling*, 26(1), 2156759X2210989. <https://doi.org/10.1177/2156759X221098937>
16. Aslan, Y., & Koçak, O. (2023). How do family influence on career choices and perceived social support affect students' life satisfaction in Turkey? The role of vocational outcome expectations as mediator. *International Journal for Educational and Vocational Guidance*. <https://doi.org/10.1007/s10775-023-09602-1>
17. Akmal, S. Z., and Astri, S. (2017). The relationship between career decision making self efficacy and readiness for career decision making in high school students. *Proceeding seminar and workshop educational psychology: career development in psychology and educational perspective*. Indonesia: School of

Postgraduate studies, Universitas Pendidikan.

18. Azpilicueta, A. E., Cupani, M., Ghío, F. B., Morán, V. E., Garrido, S. J., & Bruzzone, M. (2023). Career decision self-efficacy Item Bank: A Simulation study. *Current Psychology*, 42(31), 27828–27839 <https://doi.org/10.1007/s12144-022-03749-w>
19. Akomolafe, M. J., & Popoola, H. B. (2013). Personality traits and career maturity among secondary school students in Ondo State, Nigeria. *International Journal of Educational Research and Technology*, 4(3), 71-77.
20. Ali, Z., & Mahmud, H. (2020). Personality traits and vocational aspirations among high school students in Pakistan. *Asian Journal of Education and Development*, 7(1), 45-56.
21. Baglama, B., & Uzunboylu, H. (2017). The Relationship between Career Decision-Making Self-Efficacy and Vocational Outcome Expectations of Preservice Special Education Teachers. *South African Journal of Education*, 37(4). <https://eric.ed.gov/?id=EJ1163291>
22. Bailey, C. J. (2002). Applying the five-factor model of personality to undergraduate career attitudes and beliefs: maturity, decision-making self-efficacy, and control. [Unpublished doctoral dissertation]. Faculty of the University of Missouri-Kansas City.
23. Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ:Prentice Hall.
24. Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191.
25. Bandura, A. (2001). Social Cognitive Theory: An Agentic Perspective. *Annual Review of Psychology*, 52(1), 1–26. <https://doi.org/10.1146/annurev.psych.52.1.1>
26. Bao, Y., & Cui, N. (2018). Factors Affecting the College Students' Career Decision-Making Self-Efficacy in China. 4th International Symposium on Social Science (ISSS 2018), 384–388. <https://www.atlantis-press.com/proceedings/iss-18/25896234>

27. Barrick, M. R., & Mount, M. K. (1991). The Big Five Personality Dimensions And Job Performance: A Meta-Analysis. *Personnel Psychology*, 44(1), 1–26. <https://doi.org/10.1111/j.1744-6570.1991.tb00688.x>
28. Baruddin, W. N. M. B., Rameli, M. R. M., & Alhassora, N. S. A. (2021). Relationship between Personality Trait and Career Decision-Making Self-Efficacy on the Commitment to Career Choices among Undergraduate Students of Universiti Teknologi Malaysia. *Revista Geintec-Gestao Inovacao E Tecnologias*, 11(3), 1094–1115.
29. Berger, N., Hanham, J., Stevens, C. J., & Holmes, K. (2019). Immediate feedback improves career decision self-efficacy and aspirational alignment. *Frontiers in Psychology*, 10, Article 255. <https://doi.org/10.3389/fpsyg.2019.00255>
30. Betz, N. E. (2004). Contributions of Self-Efficacy Theory to Career Counseling: A Personal Perspective. *The Career Development Quarterly*, 52(4), 340–353. <https://doi.org/10.1002/j.2161-0045.2004.tb00950.x>
31. Betz, N. E., & Hackett, G. (1981). The relationship of career-related self-efficacy expectations to perceived career options in college women and men. *Journal of Counseling Psychology*, 28(5), 399.
32. Betz, N. E., & Hackett, G. (1986). Applications of Self-Efficacy Theory to Understanding Career Choice Behavior. *Journal of Social and Clinical Psychology*, 4(3), 279–289. <https://doi.org/10.1521/jscp.1986.4.3.279>
33. Betz, N. E., & Luzzo, D. A. (1996). Career Assessment and the Career Decision-Making Self-Efficacy Scale. *Journal of Career Assessment*, 4(4), 413–428. <https://doi.org/10.1177/106907279600400405>
34. Betz, N. E., & Voyten, K. K. (1997). Efficacy and Outcome Expectations Influence Career Exploration and Decidedness. *The Career Development Quarterly*, 46(2), 179–189. <https://doi.org/10.1002/j.2161-0045.1997.tb01004.x>
35. 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>

36. Bi, Y., Mou, S., Wang, G., & Liao, M. (2023). The relationship between professional self-concept and career decision-making difficulties among postgraduate nursing students in China: The mediating role of career decision-making self-efficacy. *Frontiers in Psychology*, 14, 1198974.
37. Blustein, D. L., Kenna, A. C., Gill, N., & DeVoy, J. E. (2008). The Psychology of Working: A New Framework for Counseling Practice and Public Policy. *The Career Development Quarterly*, 56(4), 294–308. <https://doi.org/10.1002/j.2161-0045.2008.tb00095.x>
38. Blustein, D. L., Phillips, S. D., Jobin-Davis, K., Finkelberg, S. L., & Roarke, A. E. (1997). A Theory-Building Investigation of the School-to-Work Transition. *The Counseling Psychologist*, 25(3), 364–402. <https://doi.org/10.1177/0011000097253002>
39. Bokani Naomi Choveaux & Ying Leng. (2024). The impact of proactive personality and self-esteem on career decision making self-efficacy of university students in Botswana: A mediation analysis. *International Journal of Science and Research Archive*, 12(1), 072–081. <https://doi.org/10.30574/ijrsra.2024.12.1.0730>
40. Betz, N. E., & Hackett, G. (2006). Career self-efficacy theory: Back to the future. *Journal of Career Assessment*, 14(1), 3-11.
41. Betz, N. E., & Taylor, K. M. (2001). *Manual for the Career Decision Self-Efficacy Scale*. Columbus: The Ohio State University.
42. Bolat, N., & Odacı, H. (2017). High School Final Year Students' Career Decision-Making Self-Efficacy, Attachment Styles and Gender Role Orientations. *Current Psychology*, 36(2), 252–259. <https://doi.org/10.1007/s12144-016-9409-3>
43. Bonitz, V. S., Larson, L. M., & Armstrong, P. I. (2010). Interests, self-efficacy, and choice goals: An experimental manipulation. *Journal of Vocational Behavior*, 76(2), 223–233. <https://doi.org/10.1016/j.jvb.2009.09.003>
44. Boo, S., Kim, M., & Kim, S.-H. (2021). The Relationship Among Undergraduate Students' Career Anxiety, Choice Goals, and Academic Performance. *Journal of Hospitality & Tourism Education*, 34, 1–16. <https://doi.org/10.1080/10963758.2021.1963756>

45. Brown, D., & Cinamon, R. G. (2016). Contribution of Personality to Self-Efficacy and Outcome Expectations in Selecting a High School Major Among Adolescents With Learning Disabilities. *Career Development and Transition for Exceptional Individuals*, 39(4), 237–248. <https://doi.org/10.1177/2165143415587689>
46. Brown, D., & Cinamon, R. G. (2015). Choosing a High School Major: An Important Stage in the Career Development of Israeli Adolescents. *Journal of Career Assessment*, 23(4), 630-644.
47. Brown, D., & Cinamon, R. G. (2016). Personality traits' effects on self-efficacy and outcome expectations for high school major choice. *International Journal for Educational and Vocational Guidance*, 16(3), 343–361.<https://doi.org/10.1007/s10775-015-9316-4>
48. Brown, S. D., & Lent, R. W. (2004). *Career development and counseling: Putting theory and research to work*. John Wiley & Sons.
49. Bryman, A. (2016). *Social Research Methods* (5th ed.). London: Oxford University Press.
50. Bullock-Yowell, E., Andrews, L., & Buzzetta, M. E. (2011). Explaining Career Decision-Making Self-Efficacy: Personality, Cognitions, and Cultural Mistrust. *The Career Development Quarterly*, 59(5), 400–411. <https://doi.org/10.1002/j.2161-0045.2011.tb00967.x>
51. Burch, G. St. J., & Anderson, N. (2008). Personality as a Predictor of Work-Related Behavior and Performance: Recent Advances and Directions for Future Research. In G. P. Hodgkinson & J. K. Ford (Eds.), *International Review of Industrial and Organizational Psychology* 2008 (1st ed., pp. 261–305). Wiley. <https://doi.org/10.1002/9780470773277.ch8>
52. Bokani Naomi Choveaux & Ying Leng. (2024). The impact of proactive personality and self-esteem on career decision making self-efficacy of university students in Botswana: A mediation analysis. *International Journal of Science and Research Archive*, 12(1), 072–081. <https://doi.org/10.30574/ijrsra.2024.12.1.0730>
53. Bryman, A. (2016). *Social research methods*. Oxford university press.

54. Cheung, G.W., Cooper-Thomas, H.D., Lau, R.S. & Wang, L.C. (2024). Reporting reliability, convergent and discriminant validity with structural equation modeling: A review and best-practice recommendations, *Asia Pacific Journal of Management*, 41:745–783 <https://doi.org/10.1007/s10490-023-09871-y>
55. Cattell, H. E., & Mead, A. D. (2008). *The sixteen personality factor questionnaire (16PF)*. The SAGE Handbook of Personality Theory and Assessment, 2, 135–159.
56. Chao, S.-Y., Chen, R. K., Grizzell, S. T., Wilson, K. B., & Lewis, T. A. (2022). Factors influencing the career decision self-efficacy and outcome expectations of college students with disabilities. *Rehabilitation Research, Policy, and Education*, 36 (3), 197-212.
57. Cazau, P. (2006). *Introducción a la investigación en Ciencias Sociales* (3^a. ed.). Buenos Aires.
58. Chasanah, A. M., & Salim, R. M. A. (2019). Parental support, career exploration, and career decision-making self-efficacy in Junior High School students. *ANIMA Indonesian Psychological Journal*, 34(4), 211–221.
59. Chinyere, O. M. (2017). Relationship between Personality traits and Career Decision Making Self-Efficacy among Male and Female Undergraduates in Malaysia. Unpublished Master's Thesis). Faculty of Education Universiti Teknologi Malaysia. <https://core.ac.uk/download/pdf/228042818.pdf>
60. Choi, B. Y., Park, H., Yang, E., Lee, S. K., Lee, Y., & Lee, S. M. (2012). Understanding Career Decision Self-Efficacy: A Meta-Analytic Approach. *Journal of Career Development*, 39(5), 443–460. <https://doi.org/10.1177/0894845311398042>
61. Chuang, N.-K., Lee, P. C., & Kwok, L. (2020). Assisting students with career decision-making difficulties: Can career decision-making self-efficacy and career decision-making profile help? *Journal of Hospitality, Leisure, Sport & Tourism Education*, 26, 100235.
62. Cohen, J., Cohen, P., West, S.G. & Aiken, L.S. (2013) *Applied Multiple Regression/Correlation Analysis for the Behavioral Science*. Routledge, New York.
63. Cohen, L., Manion, L. & Morrison, K. (2000) *Research Methods in Education*. 5th Edition, Routledge Falmer, London. <http://dx.doi.org/10.4324/9780203224342>

64. Conklin, A. M., Dahling, J. J., & Garcia, P. A. (2013). Linking Affective Commitment, Career Self-Efficacy, and Outcome Expectations: A Test of Social Cognitive Career Theory. *Journal of Career Development*, 40(1), 68–83. <https://doi.org/10.1177/0894845311423534>
65. Costa, P. T., & McCrae, R. R. (1992). The Five-Factor Model of Personality and Its Relevance to Personality Disorders. *Journal of Personality Disorders*, 6(4), 343–359. <https://doi.org/10.1521/pedi.1992.6.4.343>
66. Costa, P. T., & McCrae, R. R. (1999). *A five-factor theory of personality. Handbook of Personality: Theory and Research*, 2(01), 1999.
67. Costa, P., & McCrae, R. (2002). *Personality in Adulthood: A Five-Factor Theory Perspective*. Guilford Publications
68. Creed, P. A., Patton, W., & Bartrum, D. (2004). Internal and External Barriers, Cognitive Style, and the Career Development Variables of Focus and Indecision. *Journal of Career Development*, 30(4), 277–294. <https://doi.org/10.1023/B:JOCD.00000025116.17855.ea>
69. Creed, P. A., Patton, W., & Prideaux, L.-A. (2007). Predicting change over time in career planning and career exploration for high school students. *Journal of Adolescence*, 30(3), 377–392.
70. Creswell, J.W. (2008). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 3rd Edition, Sage Publications, Thousand Oaks.
71. Creswell, J.W. and Creswell, J.D. (2017) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 4th Edition, Sage, Newbury Park.
72. Costa Mastrascusa, R., de Oliveira Fenili Antunes, M.L., de Albuquerque, N.S. et al. (2023). Evaluating the complete (44-item), short (20-item) and ultra-short (10-item) versions of the Big Five Inventory (BFI) in the Brazilian population. *Sci Rep* 13, 7372. <https://doi.org/10.1038/s41598-023-34504-1>
73. Chadick, C. D. (2018). The role of personality using the millon college counseling inventory in explaining a variety of career decision-making difficulties [Unpublished doctoral dissertation]. Department of Psychology, The University of Southern Mississippi.
74. De Jong, N., Wisse, B., Heesink, J. A. M., & Van Der Zee, K. I. (2019). Personality Traits and Career Role Enactment: Career Role Preferences as a Mediator. *Frontiers in Psychology*, 10, 1720. <https://doi.org/10.3389/fpsyg.2019.01720>

75. DeVellis, R.F. and Thorpe, C.T. (2021). *Scale Development: Theory and Applications*. Sage Publications, Thousand Oaks.
76. Dizon, M. B. (2022). Personality Traits, Self-Efficacy and Career Preference Correlates among Senior High School Students in the Province of Iloilo, Philippines. *Journal of Positive School Psychology*, 6(7), 1092–1107.
77. Dostanić, J., Suvajdžić, K., & Krpović–Bojanić, Ž. (2021). Decision-Making Styles, Career Decision Self-Efficacy, and Career Adaptability among High School Students. *The Career Development Quarterly*, 69(1), 63–77. <https://doi.org/10.1002/cdq.12249>
78. Duru, H. (2022). Analysis of relationships between high school students' career maturity, career decision-making self-efficacy, and career decision-making difficulties. *International Journal of Psychology and Educational Studies*, 9(1), 63–78.
79. Duru, H., Soner, O., & Sinan, F. N. (2021). The predictors of career decision-making difficulties among high school students: Career decision self-efficacy and personal traits—Turkey case. *Kuram ve Uygulamada Eğitim Bilimleri/Educational Sciences: Theory & Practice*, 21(1), 33–42.
80. Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268. doi:10.1207/S15327965PLI1104_01
81. Darlong, L. (2024). Youth Employment for Inclusive Growth in the State of Tripura, *International Journal of Scientific Development and Research*, 9(9), 338–343.
82. Ebner, K., Soucek, R., & Kauffeld, S. (2020). Incongruities between values, motives, and skills: Exploring negative effects of self-exploration in career coaching. *British Journal of Guidance & Counselling*, 48(4), 454–476. <https://doi.org/10.1080/03069885.2020.1742286>
83. Eccles, J. S. (1994). Understanding Women's Educational And Occupational Choices: Applying the Eccles et al. Model of Achievement-Related Choices. *Psychology of Women Quarterly*, 18(4), 585–609. <https://doi.org/10.1111/j.1471-6402.1994.tb01049.x>
84. Economic Review of Tripura Report 2023-24, Directorate of Economics and Statistics, Government of Tripura, Agartala, <https://ecostat.tripura.gov.in>

85. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>
86. Fan, J. (2016). The role of thinking styles in career decision-making self-efficacy among university students. *Thinking Skills and Creativity*, 20, 63–73.
87. Feldt, R. C., & Woelfel, C. (2009). Five-factor personality domains, self-efficacy, career-outcome expectations, and career indecision. *College Student Journal*, 43(2), 429–438.
88. Field, A. (2013). *Discovering Statistics Using IBM SPSS Statistics: And Sex and Drugs and Rock “N” Roll*, 4th Edition, Sage, Los Angeles, London, New Delhi.
89. Fouad, N. A., Guillen, A., Harris-Hodge, E., Henry, C., Novakovic, A., Terry, S., & Kantamneni, N. (2006). Need, Awareness, and Use of Career Services for College Students. *Journal of Career Assessment*, 14(4), 407–420. <https://doi.org/10.1177/1069072706288928>
90. Fouad, N. A., & Guillen, A. (2006). Outcome expectations: Looking to the past and potential future. *Journal of Career Assessment*, 14, 130–142. doi:10.1177/1069072705281370
91. Funder, D. C. (2001). Personality. *Annual Review of Psychology*, 52, 197–221. <https://doi.org/10.1146/annurev.psych.52.1.197>
92. Fouad, N. A., & Byars-Winston, A. M. (2005). Cultural Context of Career Choice: Meta-Analysis of Race/Ethnicity Differences. *The Career Development Quarterly*, 53(3), 223–233. doi:10.1002/j.2161-0045.2005.tb00992.x
93. Gallo, J. L., & Roberts, T. J. (2019). College Students’ Career Decision-making and Career Decision-making Self-efficacy: A Case Study in Formative Assessment and Course Design. *Journal of Formative Design in Learning*, 3(1), 88–95. <https://doi.org/10.1007/s41686-019-00032-3>
94. Griethuijsen, R. A. L. F., Eijck, M. W., Haste, H., Brok, P. J., Skinner, N. C., Mansour, N., et al. (2014). Global patterns in students’ views of science and interest in science. *Research in Science Education*, 45(4), 581–603. doi:10.1007/s11165-014-9438-6.
95. Garcia, C., Vela, J. C., Guerra, F., & Garcia, C. (2020). Identifying Relevant Predictors of Latina/o Adolescents’ Vocational Outcome Expectations. *Journal of Multidisciplinary Graduate Research*, 5(1). <https://jmgr-ojs-shsu.tdl.org/jmgr/article/view/24>

96. Garcia, E. A. (2018). Career Information System Utilization And High School Students' Vocational Skills Self-Efficacy, Outcome Expectations, Work Hope, Career Planning, And Career Decision-Making Difficulties. Thesis extracted from <https://core.ac.uk/download/pdf/168390379.pdf>
97. Gushue, G. V., Scanlan, K. R., Pantzer, K. M., & Clarke, C. P. (2006). The relationship of career decision-making self-efficacy, vocational identity, and occupational engagement in adolescence. *Journal of Career Development*, 33(3), 189-203.
98. Gati, I., & Asher, I. (2005). *The PIC model for career decision making: Prescreening, in-depth exploration, and choice*. In *Contemporary models in vocational psychology* (pp. 15–62). Routledge. <https://www.taylorfrancis.com/chapters/edit/10.4324/9781410600578-5/pic-model-career-decision-making-prescreening-depth-exploration-choice-itamar-gati-itay-asher>
99. Gati, I., & Saka, N. (2001). High School Students' Career-Related Decision-Making Difficulties. *Journal of Counseling & Development*, 79(3), 331–340. <https://doi.org/10.1002/j.1556-6676.2001.tb01978.x>
100. Gati, I., Krausz, M., & Osipow, S. H. (1996). A taxonomy of difficulties in career decision making. *Journal of Counseling Psychology*, 43(4), 510.
101. Gedam, R. K., & Mehta, N. (2022). Antecedents of Career Decision-Making Self-Efficacy and Its Impact on Job Satisfaction-A study in the Indian It Industry. <http://gnanaganga.inflibnet.ac.in:8080/jspui/handle/123456789/8502>
102. Gore, P. A., & Leuwerke, W. C. (2000). Predicting Occupational Considerations: A Comparison of Self-Efficacy Beliefs, Outcome Expectations, and Person-Environment Congruence. *Journal of Career Assessment*, 8(3), 237–250. <https://doi.org/10.1177/106907270000800303>
103. Gushue, G. V. (2006). The relationship of ethnic identity, career decision-making self-efficacy and outcome expectations among Latino/a high school students. *Journal of Vocational Behavior*, 68(1), 85–95. <https://doi.org/10.1016/j.jvb.2005.03.002>
104. Gushue, G. V., & Whitson, M. L. (2006). The Relationship Among Support, Ethnic Identity, Career Decision Self-Efficacy, and Outcome Expectations in African American High School Students: Applying Social Cognitive Career Theory. *Journal of Career Development*, 33(2), 112–124. <https://doi.org/10.1177/0894845306293416>

105. Greco, L. M. (2016). Professional identification and career goals: goal setting in the role transition process [University of Iowa]. <https://doi.org/10.17077/etd.kho2nv07>
106. Garretsen, H., Stoker, J. I., Soudis, D., Martin, R., & Rentfrow, J. (2019). The relevance of personality traits for urban economic growth: making space for psychological factors. *Journal of Economic Geography*, 19(3), 541-565. <https://doi.org/10.1093/jeg/lby025>
107. Górník-Durose, M.E. & Boron, K. (2018). Not materialistic, just neurotic. The mediating effect of neuroticism on the relationship between attitudes to material assets and well-being, *Personality and Individual Differences*, 123, pp: 27-33, <http://dx.doi.org/10.1016/j.paid.2017.10.040>
108. Guo, L. (2025). Unsettled horizon: adolescents' career expectations in the volatile, uncertain, complex, and ambiguous contexts. *Humanities and Social Sciences Communications*, 12(1). <https://doi.org/10.1057/s41599-025-05298-6>
109. Hackett, G., & Betz, N. E. (1995). Self-Efficacy and Career Choice and Development. In J. E. Maddux (Ed.), *Self-Efficacy, Adaptation, and Adjustment* (pp. 249–280). Springer US. https://doi.org/10.1007/978-1-4419-6868-5_9
110. Hajjina, C. Y. N., & Retnawati, H. (2022). Confirmatory Factor Analysis to Measure Self-Efficacy and Outcome Expectation in Mathematics Learning. *AlphaMath: Journal of Mathematics Education*, 8(2), 111–120.
111. Hernández -Sampieri, R., & Mendoza, C. (2018). *Metodología de la investigación, las rutas cuantitativa, cualitativa y mixta*. México: Mc Graw Hill.
112. Hartung, P. J., Porfeli, E. J., & Vondracek, F. W. (2008). Career adaptability in childhood: Introduction to the special issue. *Journal of Vocational Behavior*, 73(1), 1-2.
113. Hamzah, S. R., Kai Le, K., & Musa, S. N. S. (2021). The mediating role of career decision self-efficacy on the relationship of career emotional intelligence and self-esteem with career adaptability among university students. *International Journal of Adolescence and Youth*, 26(1), 83–93. <https://doi.org/10.1080/02673843.2021.1886952>
114. Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, 94(3), 319–340. doi:10.1037/0033-295x.94.3.319

115. Higgins, E. T. (1989). Self-Discrepancy Theory: What Patterns of Self-Beliefs Cause People to Suffer? *Advances in Experimental Social Psychology*, 22, 93–136. doi:10.1016/s0065-2601(08)60306-8
116. Hapsari S.Ps, E., HeryYoenanto S.Psi, Dr. N., & Psikolog, M. P. (2022). The Effectiveness of Career Planning Training on Career Decision Making Self Efficacy. *International Journal of Humanities, Social Sciences and Education*, 9(1), 73–87. <https://doi.org/10.20431/2349-0381.0901006>
117. Hartman, R. O., & Betz, N. E. (2007). The Five-Factor Model and Career Self-Efficacy: General and Domain-Specific Relationships. *Journal of Career Assessment*, 15(2), 145–161. <https://doi.org/10.1177/1069072706298011>
118. Hartmann, F., Heine, J.-H., & Ertl, B. (2021). Concepts and Coefficients Based on John L. Holland's Theory of Vocational Choice—Examining the R Package holland. *Psych*, 3(4), 728–750. <https://doi.org/10.3390/psych3040047>
119. Hartung, P. J., Porfeli, E. J., & Vondracek, F. W. (2005). Child vocational development: A review and reconsideration. *Journal of Vocational Behavior*, 66(3), 385–419.
120. Haryati, U., Purwanto, E., & Awalya, A. (2021). The Effect of Students' Perceptions of Career Information Services on Students' Career Decision Making Self-Efficacy. *Journal Bimbingan Konseling*, 10(2), 136–141.
121. Haughey, D. (2014, December 13). A Brief History of SMART Goals. Project Smart. <https://www.projectsmart.co.uk/smart-goals/brief-history-of-smart-goals.php>
122. Hesse, F., Care, E., Buder, J., Sassenberg, K., & Griffin, P. (2015). *A Framework for Teachable Collaborative Problem Solving Skills*. In P. Griffin & E. Care (Eds.), *Assessment and Teaching of 21st Century Skills* (pp. 37–56). Springer Netherlands. https://doi.org/10.1007/978-94-017-9395-7_2
123. Holland, J. L. (1997b). *Making vocational choices: A theory of vocational personalities and work environments*, 3rd ed (pp. xiv, 303). Psychological Assessment Resources.
124. Hair J.F., Jr., Black W.C., Babin B.J., Anderson R.E. (2010). *Multivariate Data Analysis*. 7th ed. Prentice Hall; Upper Saddle River, NJ, USA.
125. Ireland, G. W., & Lent, R. W. (2018). Career exploration and decision-making learning experiences: A test of the career self-management model. *Journal of Vocational Behavior*, 106, 37–47. <https://doi.org/10.1016/j.jvb.2017.11.004>

126. Isik, E. (2013). Perceived Social Support and Locus of Control as the Predictors of Vocational Outcome Expectations. *Educational Sciences: Theory and Practice*, 13(3), 1426–1430.
127. Iwanaga, K., Umucu, E., Wu, J.-R., Yaghmaian, R., Lee, H.-L., Fitzgerald, S., & Chan, F. (2020). Assessing vocational outcome expectancy in individuals with serious mental illness: A factor-analytic approach. *Journal of Mental Health*, 29(1), 116–123. <https://doi.org/10.1080/09638237.2017.1340603>
128. The jamovi project (2024). jamovi (Version 2.5) [Computer Software]. Retrieved from <https://www.jamovi.org>
129. Javed, R. (2019). Influence of Academic Self Concept Career Decision Making Self Efficacy and Emotional Intelligence on Well Being of Adolescents. <https://shodhganga.inflibnet.ac.in/handle/10603/253420>
130. Javed, R., & Khan, M. S. (2018). Development and Standardization of Career Decision Making Self-Efficacy. *Journal of Emerging Technologies and Innovative Research*, 5(12), 569-578..
131. Jensen, M. (2015). Personality traits, learning and academic achievements. *Journal of Education and Learning*, 4(4), 91–118.
132. Jiang, H., Zhang, L., & Zhang, W. (2024). Influence of career awareness on STEM career interests: Examining the roles of self-efficacy, outcome expectations, and gender. *International Journal of STEM Education*, 11(1), 22. <https://doi.org/10.1186/s40594-024-00482-7>
133. Jiang, Z. (2014). Emotional Intelligence and Career Decision-Making Self-Efficacy: National and Gender Differences. *Journal of Employment Counseling*, 51(3), 112–124. <https://doi.org/10.1002/j.2161-1920.2014.00046.x>
134. Jin, L., Watkins, D., & Yuen, M. (2009). Personality, career decision self-efficacy and commitment to the career choices process among Chinese graduate students. *Journal of Vocational Behavior*, 74(1), 47–52.
135. John, O. P., & Srivastava, S. (1999). *The Big Five Trait taxonomy: History, measurement, and theoretical perspectives*. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). Guilford Press.
136. John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The Big-Five Inventory- Version 4a and 54*. Berkeley, CA: Berkeley Institute of Personality and Social Research, University of California.

137. Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, 86(1), 80.
138. Judge, T. A., Jackson, C. L., Shaw, J. C., Scott, B. A., & Rich, B. L. (2007). Self-efficacy and work-related performance: The integral role of individual differences. *Journal of Applied Psychology*, 92(1), 107.
139. Jung, Y.-M., & Yoo, I.-Y. (2022). Development and testing of the career decision-making self-efficacy scale for nursing students: A methodological study. *BMC Nursing*, 21(1), 231. <https://doi.org/10.1186/s12912-022-01017-7>
140. Kumari, B., & Sharma, R. (2016). Self-esteem and personality traits as predictors of mental well being. *Int. J. Psychol. Stud.* 3, 52–57.
141. Kunnel John, R., Xavier, B., Waldmeier, A., Meyer, A., & Gaab, J. (2019). Psychometric Evaluation of the BFI-10 and the NEO-FFI-3 in Indian Adolescents. *Frontiers in Psychology*, 10. doi:10.3389/fpsyg.2019.01057
142. Keller, B. K., & Whiston, S. C. (2008). The Role of Parental Influences on Young Adolescents' Career Development. *Journal of Career Assessment*, 16(2), 198–217. <https://doi.org/10.1177/1069072707313206>
143. Kim, H., Ku, B., Kim, J. Y., Park, Y.-J., & Park, Y.-B. (2016). Confirmatory and Exploratory Factor Analysis for Validating the Phlegm Pattern Questionnaire for Healthy Subjects. *Evidence-Based Complementary and Alternative Medicine*, 2016, 1–8. doi:10.1155/2016/2696019
144. Kigen, E. M., & Wangeri, T. (2014). Neuroticism and career aspirations among secondary school students in Bomet Sub-County, Kenya. *International Journal of Novel Research in Education and Learning*, 1(2), 1-9.
145. Kim, B., Jang, S. H., Jung, S. H., Lee, B. H., Puig, A., & Lee, S. M. (2014). A Moderated Mediation Model of Planned Happenstance Skills, Career Engagement, Career Decision Self-Efficacy, and Career Decision Certainty. *The Career Development Quarterly*, 62(1), 56–69. <https://doi.org/10.1002/j.2161-0045.2014.00070.x>
146. Korkmaz, O., & Yam, F. C. (2023). What Role Do Visions about Future and Vocational Outcome Expectations Have on Proactive Career Behaviors? Examining a Mediation Model on University Students. *Educational Policy Analysis and Strategic Research*, 18(2), 86–106.

147. Kothari, C.R. (2004) *Research Methodology: Methods and Techniques*. 2nd Edition, New Age International Publishers, New Delhi.
148. Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences Of Individuals' Fit At Work: A Meta-Analysis Of Person–Job, Person–Organization, Person–Group, And Person–Supervisor Fit. *Personnel Psychology*, 58(2), 281–342. <https://doi.org/10.1111/j.1744-6570.2005.00672.x>
149. Kumaranayake, A. R. (2017). Review of the current status of the studies on personality traits. *International Journal of Applied Research*, 3(11), 38–45.
150. Kırdök, O., & Harman, E. (2018). High School Students' Career Decision-making Difficulties According to Locus of Control. *Universal Journal of Educational Research*. 6(2), 242-248. <https://DOI: 10.13189/ujer.2018.060205>
151. Kasser, T. (2002). *The high price of materialism*. Cambridge: MIT Press.
152. Lee, A., & Jung, E. (2022). University students' career adaptability as a mediator between cognitive emotion regulation and career decision-making self-efficacy. *Frontiers in Psychology*, 13, 896492. <https://doi.org/10.3389/fpsyg.2022.896492>
153. Lee, S., Jung, J., Baek, S., & Lee, S. (2022). The Relationship between Career Decision-Making Self-Efficacy, Career Preparation Behaviour and Career Decision Difficulties among South Korean College Students. *Sustainability*, 14(21), 14384. <https://doi.org/10.3390/su142114384>
154. Legault, L. (2017). Self-Determination Theory. In V. Zeigler-Hill & T. K. Shackelford (Eds.), *Encyclopedia of Personality and Individual Differences* (pp. 1–9). Springer International Publishing. https://doi.org/10.1007/978-3-319-28099-8_1162-1
155. Lent, R. W. (2005). *A Social Cognitive View of Career Development and Counseling*. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 101–127). John Wiley & Sons, Inc..
156. Lent, R. W., & Brown, S. D. (2006). Integrating person and situation perspectives on work satisfaction: A social-cognitive view. *Journal of Vocational Behavior*, 69(2), 236–247.
157. Lent, R. W., & Brown, S. D. (2019). Social cognitive career theory at 25: Empirical status of the interest, choice, and performance models. *Journal of Vocational Behavior*, 115, 103316. <https://doi.org/10.1016/j.jvb.2019.06.004>

158. Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45(1), 79–122.
159. Lee, J., & Mujtaba, T. (2017). Outcome expectations and choice goals in STEM education. *International Journal of STEM Education*, 4(1), 18.
160. Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career choice: A social cognitive analysis. *Journal of Counseling Psychology*, 47(1), 36.
161. Lent, R. W., Brown, S. D., & Hackett, G. (2002). *Social cognitive career theory. Career Choice and Development* (4th Ed., 255–311.
162. Lent, R. W., Ireland, G. W., Penn, L. T., Morris, T. R., & Sappington, R. (2017). Sources of self-efficacy and outcome expectations for career exploration and decision-making: A test of the social cognitive model of career self-management. *Journal of Vocational Behavior*, 99, 107–117.
163. Lent, R., Brown, S., & Hackett, G. (1994). Toward a Unifying Social Cognitive Theory of Career and Academic Interest, Choice, and Performance. *Journal of Vocational Behavior*, 45, 79–122. <https://doi.org/10.1006/jvbe.1994.1027>
164. Lippke, S. (2017). *Outcome Expectation*. In V. Zeigler-Hill & T. K. Shackelford (Eds.), *Encyclopedia of Personality and Individual Differences* (pp. 1–2). Springer International Publishing. https://doi.org/10.1007/978-3-319-28099-8_1145-1
165. Liu, X., Zhang, X., Dang, Y., & Gao, W. (2023). Career Education Skills and Career Adaptability among College Students in China: The Mediating Role of Career Decision-Making Self-Efficacy. *Behav. Sci*, 13, 780.
166. Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57(9), 705.
167. Long, M., Wood, C., Littleton, K., Passenger, T., & Sheehy, K. (2010). *The psychology of education*. Routledge. <https://www.taylorfrancis.com/books/mono/10.4324/9780203840092/psychology-education-martyn-long-clare-wood-karen-littleton-terri-passenger-kieron-sheehy>
168. Luo, T., So, W. W. M., Wan, Z. H., & Li, W. C. (2021). STEM stereotypes predict students' STEM career interest via self-efficacy and outcome expectations. *International Journal of STEM Education*, 8(1), 36. <https://doi.org/10.1186/s40594-021-00295-y>

169. Lounsbury, J.W., Hutchens, T., & Loveland, J.M. (2004). An investigation of big five personality traits and career decidedness among early and middle adolescents. *Journal of Career Assessment*, 13(1), 1-17.
170. Li, Y., Guan, Y., Wang, F., Zhou, X., Guo, K., Jiang, P., Mo, Z., Li, Y., Zheng Fang, Z. (2015). Big-five personality and BIS/BAS traits as predictors of career exploration: The mediation role of career adaptability. *Journal of Vocational Behavior*, 89, 39-45. <https://doi.org/10.1016/j.jvb.2015.04.006>.
171. McAdams, D. P. (2015). *The art and science of personality development*. Guilford Publications.
172. Morán Delgado, G., & Alvarado Cervantes, D. G. (2010). *Métodos de investigación*. México: Pearson.
173. McCaulley, M. H., & Martin, C. R. (1995). Career Assessment and the Myers-Briggs Type Indicator. *Journal of Career Assessment*, 3(2), 219–239. <https://doi.org/10.1177/106907279500300208>
174. McWhirter, E. H., Rasheed, S., & Crothers, M. (2000). The effects of high school career education on social cognitive variables. *Journal of Counseling Psychology*, 47, 330–341.
175. Metheny, J., & McWhirter, E. H. (2013). Contributions of Social Status and Family Support to College Students' Career Decision Self-Efficacy and Outcome Expectations. *Journal of Career Assessment*, 21(3), 378–394. <https://doi.org/10.1177/1069072712475164>
176. Madhani, K. (2020). A Study on Career Decision Self-Efficacy and Locus of Control among Young Adults, *The International Journal of Indian Psychology*, 8(4), 83-87, DOI: 10.25215/0804.013.
177. Meyer, J., Fleckenstein, J., Retelsdorf, J., & Köller, O. (2019). The relationship of personality traits and different measures of domain-specific achievement in upper secondary education. *Learning and Individual Differences*, 69, 45–59. <https://doi.org/10.1016/j.lindif.2018.11.005>
178. Meyer, J., Jansen, T., Hübner, N., & Lüdtke, O. (2023). Disentangling the Association Between the Big Five Personality Traits and Student Achievement: Meta-Analytic Evidence on the Role of Domain Specificity and Achievement Measures. *Educational Psychology Review*, 35(1), 12. <https://doi.org/10.1007/s10648-023-09736-2>

179. Middleton, J. J. (2017). The mediating influence of career aspirations and career decision-making self-efficacy on self-differentiation, vocational identity, and career indecision. Louisiana Tech University, Dissertation. 74. <https://digitalcommons.latech.edu/dissertations/74>
180. Mohan, A. (2023). Big five factors Career decision making self-efficacy and Career maturity among Professional College Students. <https://shodhganga.inflibnet.ac.in/handle/10603/363722>
181. Molyn, J., Gray, D. E., & Mundy, J. (2021). The links between vocational outcome expectancies, career decision self-efficacy and environmental conditions and job search behaviours in higher education students. [Working Paper] (Unpublished), Retrieved from <https://gala.gre.ac.uk/id/eprint/19953/>
182. Mujiati, S., & Salim, R. M. A. (2021). Proactive Personality and Attributions: Study of 12 th Grade Vocational Students' Career Decision Self-Efficacy. *North American Journal of Psychology*, 23(1).
183. Myers, L. B. (1985). *Manual: A guide to the development and use of the MyersBriggs Type Indicator*. Consulting Psychologists Press.
184. Najam, B., & Ghazal, S. (2022). A Qualitative Exploration of the Outcome Expectations in Determining Career Choices of College Students. *Pakistan Journal of Humanities and Social Sciences*, 10(1), 162–171.
185. Nauta, M. M. (2004). Self-Efficacy as a Mediator of the Relationships between Personality Factors and Career Interests. *Journal of Career Assessment*, 12(4), 381–394. <https://doi.org/10.1177/1069072704266653>
186. Niğde Ömer Halisdemir Üniversitesi, Şeker, G., Mersin Üniversitesi, & Çapri, B. (2022). The Effect of the Career Psychoeducation Program on the Career Decision Self-Efficacy and Educational Outcome Expectations of Eleventh-Grade Students. *International Journal of Progressive Education*, 18(2), 87–103. <https://doi.org/10.29329/ijpe.2022.431.6>
187. Odacı, H., Çıkrıkçı, N., & İrem Değerli, F. (2023). The Role of Problem-Solving Skills in Career Decision-Making Self-Efficacy and Vocational Outcome Expectations. *International Journal of Educational Reform*, 32(4), 448–463. <https://doi.org/10.1177/10567879221076084>
188. Ogutu, J. P., Odera, P., & Maragia, S. N. (2017). Self-Efficacy as a Predictor of Career Decision Making among Secondary School Students in Busia County, Kenya. *Journal of Education and Practice*, 8(11), 20–29.

189. Olorunleke, G. K., Adesida, A. E., & Benjamin, F. S. (2020). Personality traits and its effect on group performance of academic staff union of Adekunle Ajasin University AkungbaAkoko, Ondo State. *International Journal of Academic Research in Business and Social Sciences*, 10(10), 405–421.
190. Owusu-Addo, A. (2023). Determinants of Career Choice and Personality Traits of University Students. *Journal of African Education*, 4(2), 73–104. <https://doi.org/10.31920/2633-2930/2023/v4n2a4>
191. Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge. <https://www.taylorfrancis.com/books/mono/10.4324/9781003117452/spss-survival-manual-julie-pallant>
192. Polat, F. B., & Özdemir, Y. (2020). Self-efficacy belief and perceived career barriers as a predictor of vocational outcome expectations. *Middle East Journal of Management*, 7(5), 452–470.
193. Parks-Leduc, L., Feldman, G., & Bardi, A. (2015). Personality Traits and Personal Values: A Meta-Analysis. *Personality and Social Psychology Review*, 19(1), 3–29. <https://doi.org/10.1177/1088868314538548>
194. Penn, L. T., & Lent, R. W. (2019a). 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>
195. Pen, L.T. (2016). Testing the joint roles of career decision self-efficacy and personality traits in the prediction of career indecision [Unpublished master's dissertation]. Faculty of the Graduate School of the University of Maryland, College Park.
196. Peterson, G. W., Sampson Jr, J. P., & Reardon, R. C. (1991). Career development and services: A cognitive approach. Thomson Brooks/Cole Publishing Co. <https://psycnet.apa.org/record/1991-97266-000>
197. Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge.
198. Pignault, A., Rastoder, M., & Houssemand, C. (2023). The Relationship between Self-Esteem, Self-Efficacy, and Career Decision-Making Difficulties: Psychological Flourishing as a Mediator. *European Journal of Investigation in Health, Psychology and Education*, 13(9), 1553–1568. <https://doi.org/10.3390/ejihpe13090113>

199. Plakhotnik, M. S., Krylova, A. V., & Maslikova, A. D. (2020). Does participation in case competitions improve career decision-making self-efficacy of university students? *Education Training*, 62(6), 659–675.
200. Porfeli, E. J., & Lee, B. (2012). Career development during childhood and adolescence. *New Directions for Youth Development*, 2012(134), 11–22. <https://doi.org/10.1002/yd.20011>
201. Poropat, A. E. (2009). A meta-analysis of the five-factor model of personality and academic performance. *Psychological Bulletin*, 135(2), 322.
202. Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. <https://doi.org/10.3758/BRM.40.3.879>
203. Purnama, C. Y., & Ernawati, L. (2021). A psychometric evaluation of the career decision making self-efficacy scale. *Journal Penelitian Dan Evaluasi Pendidikan*, 25(1). <https://doi.org/10.21831/pep.v25i1.39960>
204. Ramadhani, R., & Suharso, P. L. (2021). How proactive personality mediates the relationship between parental involvement and career decision self-efficacy. *Psychology and Education*, 58(2), 135–140.
205. Roberts, B. W., & Mroczek, D. (2008). Personality Trait Change in Adulthood. *Current Directions in Psychological Science*, 17(1), 31–35. <https://doi.org/10.1111/j.1467-8721.2008.00543.x>
206. Roberts, B. W., Kuncel, N. R., Shiner, R., Caspi, A., & Goldberg, L. R. (2007). The Power of Personality: The Comparative Validity of Personality Traits, Socioeconomic Status, and Cognitive Ability for Predicting Important Life Outcomes. *Perspectives on Psychological Science*, 2(4), 313–345. <https://doi.org/10.1111/j.1745-6916.2007.00047.x>
207. Rogers, M. E., Creed, P. A., & Glendon, A. I. (2008). The role of personality in adolescent career planning and exploration: A social cognitive perspective. *Journal of Vocational Behavior*, 73(1), 132–142.
208. Rogers, M. E., & Creed, P. A. (2011). Personality traits and career decision-making self-efficacy: Predicting academic engagement and achievement. *Journal of Career Assessment*, 19(3), 1-15.
209. Rahayu, E., Widayanti, C. G., & Sawitri, D. R. (2024). Career Decision-Making Self-Efficacy among Undergraduate Students in Collectivistic Contexts: A Scoping Review. *Journal of Educational, Health and Community Psychology*,

- 13(2), 358–379. <https://doi.org/10.12928/jehcp.v13i2.27855>
210. Rentfrow, P. J., Jokela, M., Lamb, M. E. (2015) Regional personality differences in Great Britain. *PLoS One*, 10: e0122245.
211. Richins, M. (2017). Materialism pathways: The process that create and perpetuate materialism. *Journal of Consumer Psychology*. <http://dx.doi.org/10.1016/j.jcps.2017.07.006>.
212. Rosenman, R., Tennekoon, V., & Hill, L. G. (2011). Measuring bias in self-reported data. *International Journal of Behavioural and Healthcare Research*, 2(4), 320. <https://doi.org/10.1504/ijbhr.2011.043414>
213. Sampson, J. P., Peterson, G. W., Reardon, R. C., & Lenz, J. G. (2000). Using Readiness Assessment to Improve Career Services: A Cognitive Information-Processing Approach. *The Career Development Quarterly*, 49(2), 146–174. <https://doi.org/10.1002/j.2161-0045.2000.tb00556.x>
214. Sandra, E., & Mularsih, H. (2021). The Role of Self-Efficacy in Career Decision Making Among Graduated Students from Vocational High Schools in Jakarta. *International Conference on Economics, Business, Social, and Humanities (ICEBSH 2021)*, 1064–1068. <https://www.atlantis-press.com/proceedings/icebsh-21/125959621>
215. Seker, G. & Capri, B. (2019). The Relationship between Vocational Personality Types and Vocational Values, *Journal of Education and Training Studies*, 7(11), 103-113, doi:10.11114/jets.v7 i 1 1 4 4 7 8
216. Saucier, G. (2002). Orthogonal markers for orthogonal factors: The case of the Big Five. *Journal of Research in Personality*, 36(1), 1–31.
217. Saunders, M.N.K., Lewis, P. & Thornhill, A. (2019). *Research Methods for Business Students*. 8th Edition, Pearson, New York.
218. Schaub, M. (2004). Social cognitive career theory: Examining the mediating role of sociocognitive variables in the relation of personality to vocational interests, *Dissertation Abstracts International Section A: Humanities & Social Sciences*, 64 (7-A), 2463..
219. Schaub, M., & Tokar, D. M. (2005). The role of personality and learning experiences in social cognitive career theory. *Journal of Vocational Behavior*, 66(2), 304–325.
220. Seibert, S. E., Kraimer, M. L., Holtom, B. C., & Pierotti, A. J. (2013b). Even the best laid plans sometimes go askew: Career self-management processes, career

- shocks, and the decision to pursue graduate education. *Journal of Applied Psychology*, 98(1), 169–182. <https://doi.org/10.1037/a0030882>
221. Seibert, S.E., & Kraimer, M.L. (2001). The Five-Factor Model of Personality and Career Success, *Journal of Vocational Behavior*, 58(1), 1-21.
222. Semeijn, J. H., van der Heijden, B., & Beuckelaer, A. (2018). Personality Traits and Types in Relation to Career Success: An Empirical Comparison Using the Big Five. *Applied Psychology*, 69. <https://doi.org/10.1111/apps.12174>
223. Shang, W., Yu, T., Liang, X., Wang, J., & Su, J. (2022). How Does Career Calling Influence Preservice Teachers' Learning Engagement? A Multiple Mediating Roles of Occupational Self-Efficacy and Vocational Outcome Expectation. *Frontiers in Psychology*, 13, 874895. <https://doi.org/10.3389/fpsyg.2022.874895>
224. Sharma, M. S., & Suri, S. (2019). Moderating effects of big five personality between self-efficacy and career choice among college students. *International Journal of Innovative Studies in Sociology and Humanities*, 4(5), 101–109.
225. Sharma, S. (2022). Mediating role of career decision making self-efficacy on gender and career choice among college students. *International Journal of Indian Psychology*, 9(1). <https://doi.org/10.25215/0901.123>
226. Sharma, S., & Sushma, S. (2019). Moderating Effects of Big Five Personality between Self Efficacy and Career Choice among College Students. *International Journal of Innovative Studies in Sociology and Humanities*, 4(5), 101-109.
227. Sheng, W., & Caiga, B. T. (2024). Proactive Personality, Career Social Support, and Career Decision-Making Self-Efficacy among Chinese College Students. *Sustainable Development*, 12(1), 1–14.
228. Shoffner, M. F., Newsome, D., Barrio Minton, C. A., & Wachter Morris, C. A. (2015). A Qualitative Exploration of the STEM Career-Related Outcome Expectations of Young Adolescents. *Journal of Career Development*, 42(2), 102–116. <https://doi.org/10.1177/0894845314544033>
229. Siddiky, Md. R., & Akter, S. (2021). The students' career choice and job preparedness strategies: A social environmental perspective. *International Journal of Evaluation and Research in Education (IJERE)*, 10(2), 421. <https://doi.org/10.11591/ijere.v10i2.21086>
230. Sidiropoulou-Dimakakou, D., & Argyropoulou, K. (2006). Career decision making self-efficacy and decision making styles of higher education students in Greece. *Journal of the National Institute for Career Education and Counselling*,

- 16(1), 15–19.
231. Song, Z., & Chon, K. (2012). General self-efficacy's effect on career choice goals via vocational interests and person–job fit: A mediation model. *International Journal of Hospitality Management*, 31(3), 798–808.
 232. Stangl, D. K. (2008). Encyclopedia of Statistics in Behavioral Science. *Journal of the American Statistical Association*, 103(482), 881–882. <https://doi.org/10.1198/jasa.2008.s230>
 233. Student Goal Setting: An Evidence-Based Practice Associated with Deeper Learning, Midwest Comprehensive Center, 2018. Retrieved from <https://files.eric.ed.gov/fulltext/ED589978.pdf>
 234. Suh, H. N., & Flores, L. Y. (2023). Role of perfectionism in the career decision self-efficacy and outcome expectations of Asian American college students. *Asian American Journal of Psychology*, 14(3), 274–283. <https://doi.org/10.1037/aap0000299>
 235. Schaub, M., & Tokar, D. M. (2005). The role of personality and learning experiences in social cognitive career theory. *Journal of Vocational Behavior*, 66(2), 304–325. doi:10.1016/j.jvb.2004.09.005
 236. Super, D. (1957). *Psychology and careers*, Harper and Row. New York.
 237. Super, D. E. (1980). A life-span, life-space approach to career development. *Journal of Vocational Behavior*, 16, 282–298. [https://doi.org/10.1016/0001-8791\(80\)90056-1](https://doi.org/10.1016/0001-8791(80)90056-1).
 238. Söner, O., & Yılmaz, O. (2022). How do personality traits influence adolescents' career anxiety and self-efficacy in making career decisions? *Journal of Teacher Education and Lifelong Learning*, 4(2), 110–123.
 239. Stangl, D. K. (2008). Encyclopedia of Statistics in Behavioral Science. *Journal of the American Statistical Association*, 103(482), 881–882. <https://doi.org/10.1198/jasa.2008.s230>
 240. Schmitt, D. P., Allik, J., McCrae, R. R., & Benet-Martínez, V. (2007). The Geographic Distribution of Big Five Personality Traits: Patterns and Profiles of Human Self-Description across 56 Nations. *Journal of Cross-Cultural Psychology*, 38(2), 173–212. <https://doi.org/10.1177/0022022106297299>
 241. Tang, M., Pan, W., & Newmeyer, M. D. (2008). Factors Influencing High School Students' Career Aspirations. *Professional School Counseling*, 11(5), 2156759X0801100502. <https://doi.org/10.1177/2156759X0801100502>

242. 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.
243. Tufte, E. R. (1985). The visual display of quantitative information. *The Journal for Healthcare Quality (JHQ)*, 7(3), 15.
244. Thomas, P., John, D., & Thomas, L. (2024). Factors influencing career decision of undergraduate and postgraduate students: An Indian context. *Higher Education, Skills and Work-Based Learning*, 14(1), 95–108.
245. To, S., Yang, L., Lau, C. D., Wong, C. V., & Su, X. (2022). Associations of Parental Variables and Youth's Career Decision-Making Self-Efficacy: A Meta-Analysis. *Journal of Child and Family Studies*, 31(2), 530–544. <https://doi.org/10.1007/s10826-021-02125-9>
246. Tsai, C.-F., Chang, C.-P., Chen, T.-L., & Hsu, M.-L. (2024). Exploring the Influence of Personality Traits, Self-Efficacy, and Creativity on Employability for Hospitality and Tourism College Students. *Sustainability*, 16(4), 1490 <https://doi.org/10.3390/su16041490>
247. <https://doi.org/10.3390/su16041490>
248. Tufte, E. R. (1985). The visual display of quantitative information. *The Journal for Healthcare Quality (JHQ)*, 7(3), 15.
249. Turda, E. S. (2024). The relationship between personality factors, vocational identity and career decision-making self-efficacy. *International Journal for Research in Vocational Education and Training*, 11(1), 55–75.
250. Taber, K.S. (2018). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Res Sci Educ* 48, 1273–1296. <https://doi.org/10.1007/s11165-016-9602-2>
251. Turda, S. (2024). The Relationship Between Personality Factors, Vocational Identity and Career Decision-Making Self-Efficacy. *International Journal for Research in Vocational Education and Training*, 11(1), 55–75. <https://doi.org/10.13152/IJRVET.11.1.3>
252. Ulas-Kilic, O., Peila-Shuster, J. J., Demirtas-Zorbaz, S., & Kizildag, S. (2018). Career decision-making self-efficacy of young adolescent students in Turkey. *International Journal of School & Educational Psychology*, 1–11. doi:10.1080/21683603.2018.1552220

253. Vela, J. C., Karaman, M. A., Smith, W. D., & Hinojosa, Y. (2018). An examination of the structure of the vocational outcome expectations scale with latina/o students. *Uluslararası Türkçe Edebiyat Kültür Eğitim (TEKE) Dergisi*, 7(4), 2733–2746.
254. Vela, J. C., Lenz, A. S., Sparrow, G. S., Gonzalez, S. L., & Hinojosa, K. (2015). Humanistic and Positive Psychology Factors as Predictors of Mexican American Adolescents' Vocational Outcome Expectations. *Journal of Professional Counseling: Practice, Theory & Research*, 42(1), 16–28. <https://doi.org/10.1080/15566382.2015.12033941>
255. Vela, J. C., Lerma, E., Whittenberg, J. F., Hinojosa, Y., & Rodriguez, K. (2019). The Role of Positive Psychology, Cultural, and Family Factors in Latina/o College Students' Vocational Outcome Expectations. *Journal of Employment Counseling*, 56(4), 164–179. <https://doi.org/10.1002/joec.12131>
256. Wang, D., Liu, X., & Deng, H. (2022). The perspectives of social cognitive career theory approach in current times. *Frontiers in Psychology*, 13, 1023994. <https://doi.org/10.3389/fpsyg.2022.1023994>
257. Wang, H., Liu, Y., Wang, Z., & Wang, T. (2023). The influences of the Big Five personality traits on academic achievements: Chain mediating effect based on major identity and self-efficacy. *Frontiers in Psychology*, 14, 1065554.
258. Wang, N., Jome, L. M., Haase, R. F., & Bruch, M. A. (2006). The Role of Personality and Career Decision-Making Self-Efficacy in the Career Choice Commitment of College Students. *Journal of Career Assessment*, 14(3), 312–332. <https://doi.org/10.1177/1069072706286474>
259. Watson, M., & McMahon, M. (2005). Children's career development: A research review from a learning perspective. *Journal of Vocational Behavior*, 67(2), 119–132. <https://doi.org/10.1016/j.jvb.2004.08.011>
260. Whiston, S. C., Brecheisen, B. K., & Stephens, J. (2003). Does treatment modality affect career counseling effectiveness? *Journal of Vocational Behavior*, 62(3), 390–410.
261. Wu, S., Zhang, K., Zhou, S., & Chen, W. (2020). Personality and career decision-making self-efficacy of students from poor rural areas in China. *Social Behavior and Personality: An International Journal*, 48(5), 1–18. <https://doi.org/10.2224/sbp.8753>

262. Wright, S. (2025). Conscientiousness and openness to experience predict job performance in public Service All-Remote workforce. *Canadian Public Administration*, 68(2), 207–226. <https://doi.org/10.1111/capa.70017>
263. Xing, X. (2016). Family influences on career decision-making self-efficacy of secondary vocational students in China [PhD Thesis, University of Georgia]. https://getd.libs.uga.edu/pdfs/xing_xue_201605_phd.pdf
264. Xu, M., Lu, H., Fu, J., Zhu, H., & Zhao, Y. (2025). The relationship between basic psychological needs satisfaction and career adaptability among university students: The roles of grit and Career Decision-Making Self-Efficacy. *Behavioral Sciences*, 15(2), 167. <https://doi.org/10.3390/bs15020167>
265. Yip, C., Han, N.-L. R., & Sng, B. L. (2016). Legal and ethical issues in research. *Indian Journal of Anaesthesia*, 60(9), 684. <https://doi.org/10.4103/0019-5049.190627>
266. Yu, X., Luo, N., Liu, X., Li, H., Li, L., & Mei, Y. (2021). Effect of Proactive Personality on Career Decidedness: The Mediating Role of Career Exploration and the Moderating Role of Anticipated Regret. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.763224>
267. Zhang, L., Wang, X., Fan, W., & Li, Y. (2024). Contributions of proactive personality to career decision self-efficacy: Mediating effect of positive affect and moderating roles of social class and gender. *Current Psychology*, 43(10), 9164–9175. <https://doi.org/10.1007/s12144-023-05014-0>
268. Zhao, K., & Ji, W. (2024). The influence of gratitude and personality traits on career resilience and career success among college students. *Frontiers in Psychology*, 15, 1340200. <https://doi.org/10.3389/fpsyg.2024.1340200>
269. Zhou, A., Liu, J., Xu, C., & Jobe, M. C. (2024). Effect of Social Support on Career Decision-Making Difficulties: The Chain Mediating Roles of Psychological Capital and Career Decision-Making Self-Efficacy. *Behavioral Sciences*, 14(4), 318.
270. Ziebell, J. L. C. (2010). Promoting viable career choice goals through career decision-making self-efficacy and career maturity in inner-city high school students: A test of social cognitive career theory. Retrieved from the University Digital Conservancy, <https://hdl.handle.net/11299/96093>.

APPENDIX

SURVEY TOOLS

The study utilized the following validated data collection tools:

1. **Big Five Inventory-44 (BFI-44):** A validated questionnaire for assessing personality traits.
2. **Career Decision-Making Self-Efficacy Scale (CDMSE):** Developed by Javed and Khan (2018), this scale measures individuals' confidence in their ability to make career-related decisions.
3. **Vocational Outcome Expectations Scale:** Developed by McWhirter and Rashhed (2000), this tool assesses expectations related to vocational outcomes.
4. **Career Choice Goals Scale:** Developed by Seibert et al. (2013), this scale evaluates an individual's career choice goals.

These tools were used after undergoing validation to ensure their reliability and relevance to the study objectives.

1. Big Five Inventory-44 (BFI-44)

[The data is collected only for research purposes. All the data collected from the respondent will be kept confidential]

Name: (CAPITAL)			
School Name:			
Stream: Tick (✓)	Science (XI/XII)	Arts (XI/XII)	(Commerce XI/XII)
Gender: Tick (✓)	Female	Male	

Instruction (BFI):

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Each question has five options. You need to opt for any one response that is most suitable for you. Tick (✓) the best options from the following questions:

I see myself as someone who tends to find fault with others.	1	2	3	4	5
I see myself as someone who does a thorough job.	1	2	3	4	5
I see myself as someone who is depressed.	1	2	3	4	5
I see myself as someone who is original, comes up with new ideas.	1	2	3	4	5
I see myself as someone who is reserved.	1	2	3	4	5
I see myself as someone who is helpful and unselfish with others.	1	2	3	4	5
I see myself as someone who can be somewhat careless.	1	2	3	4	5
I see myself as someone who is relaxed, handles stress well.	1	2	3	4	5
I see myself as someone who is curious about many different things.	1	2	3	4	5
I see myself as someone who is full of energy.	1	2	3	4	5
I see myself as someone who starts quarrels with others.	1	2	3	4	5
I see myself as someone who is reliable worker.	1	2	3	4	5
I see myself as someone who can be tense.	1	2	3	4	5
I see myself as someone who is ingenious, a deep thinker.	1	2	3	4	5
I see myself as someone who generates a lot of enthusiasm.	1	2	3	4	5
I see myself as someone who has a forgiving nature.	1	2	3	4	5
I see myself as someone who tends to be disorganized.	1	2	3	4	5
I see myself as someone who worries a lot.	1	2	3	4	5
I see myself as someone who has an active imagination.	1	2	3	4	5
I see myself as someone who tends to be quiet.	1	2	3	4	5
I see myself as someone who is generally trusting.	1	2	3	4	5
I see myself as someone who tends to be lazy.	1	2	3	4	5
I see myself as someone who is emotionally stable, not easily upset.	1	2	3	4	5
I see myself as someone who is inventive.	1	2	3	4	5
I see myself as someone who values artistic, aesthetic experiences.	1	2	3	4	5
I see myself as someone who prefers work that is routine.	1	2	3	4	5
I see myself as someone who likes to reflect, play with ideas.	1	2	3	4	5

2. Career Choice Goals (CCG) Scale

[The data is collected only for research purposes. All the data collected from the respondent will be kept confidential]

Name: (CAPITAL)			
School Name:			
Stream: Tick (✓)	Science (XI/XII)	Arts (XI/XII)	(Commerce XI/XII)
Gender: Tick (✓)	Female	Male	

Instruction (CG):

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Each question has five options. You need to opt for any one response that is most suitable for you. Tick (✓) the best options from the following questions:

It is important to me to achieve financial success in my career.	1	2	3	4	5
It is important for me to be seen by others as a success in my career.	1	2	3	4	5
It is important to me that others not view my career as a failure.	1	2	3	4	5
It is important for me to continue to learn and grow over the course of my career.	1	2	3	4	5
It is important that my career offers me opportunities for interesting work.	1	2	3	4	5
I am willing to gain experience through a wide variety of jobs or work assignments.	1	2	3	4	5
It is important for me to develop my technical skills over the course of my career.	1	2	3	4	5
I want to have a positive impact on organizations and society through my work.	1	2	3	4	5

3. Career Decision Making Self Efficacy (CDMSE) Scale

Name: (CAPITAL)			
School Name:			
Stream: Tick (✓)	Science (XI/XII)	Arts (XI/XII)	(Commerce XI/XII)
Gender: Tick (✓)	Female	Male	

Instruction (CDMSE):

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Each question has five options. You need to opt for any one response that is most suitable for you.

Tick (✓) the best options from the following questions:

I could not choose the right career for myself when I am happy.	1	2	3	4	5
I could make efforts to enter the right career course.	1	2	3	4	5
I could make systematic steps to complete my work successfully.	1	2	3	4	5
I could think carefully before choosing the right career for myself.	1	2	3	4	5
I could choose a career that will match my interests and abilities.	1	2	3	4	5
I could take necessary steps to successfully complete my selected course.	1	2	3	4	5
I could make maximum efforts to make good career choice for myself.	1	2	3	4	5
I could easily solve problem at times of choosing my career.	1	2	3	4	5
I could identify problems that occur while choosing my career.	1	2	3	4	5
I could choose the right career for myself even under stressful situations.	1	2	3	4	5
I am confident enough to make my career goals for the next 3 to 5 years.	1	2	3	4	5
I am confident that I can make my own career choice.	1	2	3	4	5
I could find important information about my career choice in the library or internet.	1	2	3	4	5
I am confident enough to assess my academic abilities.	1	2	3	4	5
I could choose a career that that will fit my lifestyle.	1	2	3	4	5

I could easily stick to my selected career course in the future.	1	2	3	4	5
I could choose the right career when I am motivated.	1	2	3	4	5

4. Vocational Outcome Expectations (VOE) Scale

Name: (CAPITAL)			
School Name:			
Stream: Tick (✓)	Science (XI/XII)	Arts (XI/XII)	(Commerce XI/XII)
Gender: Tick (✓)	Female	Male	

Instruction (VOE):

Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
1	2	3	4

Each question has five options. You need to opt for any one response that is most suitable for you. Tick (✓) the best options from the following questions:

My career planning will lead to a satisfying career for me.	1	2	3	4
I will be successful in my chosen career/occupation.	1	2	3	4
The future looks bright for me.	1	2	3	4
I have control over my career decisions.	1	2	3	4
I can make my future a happy one.	1	2	3	4
I will get the job I want in my chosen career.	1	2	3	4
My career/occupation choice will provide the income I need.	1	2	3	4
I will have a career/occupation that is respected in our society.	1	2	3	4
I will achieve my career/occupational goals.	1	2	3	4
My family will approve of my career/occupation choice.	1	2	3	4
My talents and skills will be used in my career/occupation.	1	2	3	4
My career/occupation choice will allow me to have the life style that I want.	1	2	3	4

CERTIFICATE
INSTITUTIONAL ETHICS COMMITTEE APPROVAL
LOVELY PROFESSIONAL UNIVERSITY



**INSTITUTIONAL ETHICS
COMMITTEE (IEC)**

[Registration No: EC/NEW/INST/2022/3110]

Ref: LPU/IEC-LPU/2024/3/19

Date: 12.04.24

Dear Patal Kumar Muringing

The Institutional Ethics Committee, Lovely Professional University (IEC-LPU) reviewed and discussed your application to conduct the study entitled **"Role of Personality on Choice Goals: Mediating Roles of Career Decision-Making Self-Efficacy and Outcome Expectations among Secondary School Students"**.

The following documents were reviewed:

- (a) Application form
- (b) Research Protocol
- (c) Patient information sheet and informed consent form in English or vernacular language.
- (d) Principal investigator's current Curriculum Vitae.

The following members of the ethics committee were present at the meeting held on 28.03.24

Sl. No	Name	Designation as per IEC
1	Dr. Shikani Tandon	Chairperson
2	Dr. Navneet Khurana	Member Secretary
3	Dr. Kanav Khara	Alternate Member Secretary
4	Dr. Anil Malhotra	Clinician-I
5	Dr. Naresh Kundra	Clinician-II
6	Dr. Meenu Chopra	Legal expert
7	Mr. Sumesh Mathew	Social scientist/Philosopher/Ethicist/Theologian
8	Dr. Rajan Kumar Sharma	Layperson

The Ethics committee **approved** the study to be conducted in its presented form subject to the condition of

- Researchers conducting studies beyond a 50 km radius of LPU must ensure they obtain local ethical approval and comply with any applicable regulations
- The principal investigator and all members of the project shall ensure compliance with current regulatory provisions (as per New Drug Clinical Trial Rules 2019 and ICH-GCP), Ethical Guidelines for Biomedical Research on Human Participants by ICMR, and the standard operating procedure of IEC including timely submission of Interim Annual Report and Final Closure Report.
- Participant Information Sheet and a copy of signed Informed Consent shall be given to every research participant.
- Inform IEC in case of any proposed amendments (change in protocol/procedure, site / Investigator, etc).
- Inform IEC immediately in case of any Adverse Events and Serious Adverse Events.
- Members of the IEC have the right to monitor any project with prior intimation.

Yours sincerely,


Chairperson/Member secretary/Alternate member secretary, IEC-LPU

12/04/24
dd/mm/yyyy.

Member Secretary
Institutional Ethics Committee
Lovely Professional University
Phagwara-Punjab-144411



Jalandhar-Delhi G.T. Road, Phagwara, Punjab (India) - 144411
Ph : +91-1824-444039 E-mail : ms_ieclpu@lpu.co.in website : www.lpu.in

LATTER OF CANDIDACY



**LOVELY
PROFESSIONAL
UNIVERSITY**

Centre for
Research Degree Programmes

LPU/CRDP/PHD/EC/20230620/002439

Dated: 04 Mar 2023

Patal Kumar Murasing
VID: 42000045
Programme Name: Doctor of Philosophy (Education)

Subject: Letter of Candidacy for Ph.D.

Dear Candidate,

We are very pleased to inform you that the Department Doctoral Board has approved your candidacy for the Ph.D. Programme on 04 Mar 2023 by accepting your research proposal entitled: "Role of Personality on Choice Goals: Mediating Roles of Career Decision Making Self Efficacy and Outcome Expectations among Senior Secondary School Students"

As a Ph.D. candidate you are required to abide by the conditions, rules and regulations laid down for Ph.D. Programme of the University, and amendments, if any, made from time to time.

We wish you the very best!!

In case you have any query related to your programme, please contact Centre of Research Degree Programmes.

Head

Centre for Research Degree Programmes

Note:- This is a computer generated certificate and no signature is required. Please use the reference number generated on this certificate for future conversations.

Jalandhar-Dehi G.T.Road, Phagwara, Punjab (India) - 144411
Ph : +91-1824-444594 E-mail : drp@lpu.co.in website : www.lpu.in

OPPO A78 5G

**PERMISSION FOR FINAL DATA COLLECTION FROM THE
DIRECTORATE OF SECONDARY EDUCATION, GOVT. OF TRIPURA**

No.F.25(1-1)SE/VJ/2022
Government of Tripura
Directorate of Secondary Education
Vidyajyoti Cell

Date: 01/08/2024.

To
The District Education Officer,
West Tripura/ Sepahijala/ Gomati/ South Tripura/
Khowai/ Dhalai Tripura/ Unakoti/ North Tripura.

Sub :- No objection in respect of data collection in connection with research work of Mr. Patal Kumar Murasing, Ph.D. Scholar of Lovely Professional University, Punjab.

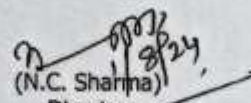
Sir,

Please find enclosed herewith a letter received from Mr. Patal Kumar Murasing, a bonafide Ph.D. Scholar of Lovely Professional University, Punjab regarding collection of data from the students studying in classes XI & XII (All Stream) of Vidyajyoti Schools under your jurisdiction in connection with his research work.

The Principals of Vidyajyoti Schools may be directed from your end to cooperate with him for collection of data. **However no personal and sensitive information of students should be shared in any circumstances.**

This is for your information and necessary action.

Yours sincerely,


(N.C. Sharma)
Director
Secondary Education
Govt. of Tripura.

Copy to:-

1. The Principal/Vice Principal/TIC.....School
for information & necessary action.
2. Mr. Patal Kumar Murasing, Ph.D. Scholar (Reg. No. 42000045), School of
Education, Lovely Professional University, Punjab for information.

OPPO A78 5G

Udaipur | 13 April 2025 at 11:36 am

**PROOFS OF CONTENT VALIDITY CERTIFICATION BY THE
EXPERTS**

Category	Number of Experts	Position/Designation
Language Expert (English)	1	Vice-Principal, H. S. School
Subject Experts in EDUCATION	3	Associate Professor
Subject Experts in PSYCHOLOGY	2	Associate Professor
Vocational Institute Faculty	1	Principal, Polytechnic Institute
Resource Person, Directorate of Employment and Manpower Planning	2	1 Senior Research Officer, and 1 Asst. Employment Officer
	TOTAL=9	

LANGUAGE EXPERT (ENGLISH)-1

Page 3 of 3

Certification

To Whom So Ever It May Concern

The above items of Career choice goals and vocational outcome expectations are valid as per their relevance and clarity of content is concerned, for the level of senior / secondary school students.

Mhi 02/08/24

Signature with Seal
MANIDIPA CHAUDHURI
Vice-Principal
Udaipur English Medium H.S. School
Udaipur, Gomati Dist. Tripura.

(Post Graduate Teacher in English)



OPPO A78 5G

Udaipur | 13 April 2025 at 12:17 pm

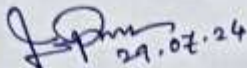
SUBJECT EXPERT (EDUCATION)-3

Page 3 of 3

Certification

To Whom So Ever It May Concern

The above items of Career choice goals and vocational outcome expectations are valid as per their relevance and clarity of content is concerned, for the level of senior / secondary school students.


21.07.24
(DR. DIPANKAR PAL)
Signature with Seal
Associate Professor
Dept. of Education
M.B.B College - Agartala
Associate Professor,
M.B.B College Agartala
Govt. of Tripura



OPPO A78 5G

Udaipur | 13 April 2025 at 12:16 pm

SUBJECT EXPERT (EDUCATION)-3

Page 3 of 3

Certification

To Whom So Ever It May Concern

The above items of Career choice goals and vocational outcome expectations are valid as per their relevance and clarity of content is concerned, for the level of senior / secondary school students.


Signature with Seal
Dr. Haradhan Saha
Principal
SVM Mohanpur
Tripura (West)

Associate Professor (Education)



OPPO A78 5G

Udaipur | 13 April 2025 at 12:15 pm

	used in my career/occupation.							
5	I have control over my career decisions.			3				
6	I can make my future a happy one.			3				
7	I will get the job I want in my chosen career.			3				
8	My career/occupation choice will provide the income I need.			3				
9	I will have a career/occupation that is respected in our society.			3				
10	I will achieve my career/occupational goals.			3				
11	My family will approve of my career/occupation choice.			3				
12	My career/occupation choice will allow me to have the lifestyle that I want.			3				

Certification

To Whom So Ever It May Concern

The above items of Career choice goals and vocational outcome expectations are valid as per their relevance and clarity of content is concerned, for the level of senior / secondary school students.

Supreet
Signature with Seal

Expert 1

Dr. Supreet Kaur
Prof in Education,
DOE, P.U., Chand.

Signature

Signature with Seal

Expert 2

Signature

Signature with Seal

Expert 3

Signature

Signature with Seal

Expert 4

Signature

Expert 5

Expert 6

Expert 7

Expert 8

OPPO A78 5G

Udaipur | 13 April 2023 at 12:18 pm

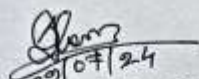
SUBJECT EXPERT (PSYCHOLOGY)-2

Page 3 of 3

Certification

To Whom So Ever It May Concern

The above items of Career choice goals and vocational outcome expectations are valid as per their relevance and clarity of content is concerned, for the level of senior / secondary school students.


20/07/24
DR. DEEPA GHOSH
Associate Professor
Signature with Seal
Dept. of Psychology
M.B.B. College
Agartala
Associate Professor,
M.B.B College, Agartala
Govt. of Tripura



OPPO A78 5G

Udaipur | 13 April 2025 at 12:16 pm

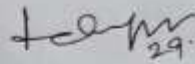
SUBJECT EXPERT (PSYCHOLOGY)-2

Page 3 of 3

Certification

To Whom So Ever It May Concern

The above items of Career choice goals and vocational outcome expectations are valid as per their relevance and clarity of content is concerned, for the level of senior / secondary school students.

 29.7.2024

Signature with Seal
DR. ARPITA ACHARYA
Associate Professor,
Department of Psychology
M.B. College, Agartala,
Govt. of Tripura.



OPPO A78 5G

Udaipur | 13 April 2025 at 11:41 am

VOCATIONAL TEACHER-1

Certification

To Whom So Ever It May Concern

The above items of Career choice goals and vocational outcome expectations are valid as per their relevance and clarity of content is concerned, for the level of senior / secondary school students.

Signature with Seal
22/07/2024
Dr. TANOJAY DEB
Principal-In-charge
&
Head of Office
Gomati District Polytechnic
Fulhumari, Udaipur



OPPO A78 5G

Udaipur | 13 April 2025 at 12:17 pm

EMPLOYMENT OFFICER (DISTRICT MODEL CAREER CENTER)-1

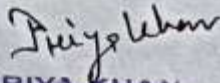
Page 3 of 3

Certification

To Whom So Ever It May Concern

The above items of Career choice goals and vocational outcome expectations are valid as per their relevance and clarity of content is concerned, for the level of senior / secondary school students.

Signature with Seal



PRIYA KHAN

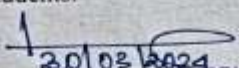
Assistant Employment Officer,
Model Career Centre, Agartala,
District Employment Exchange,
Agartala, West Tripura.



OPPO A78 5G

Udaipur | 13 April 2025 at 12:18 pm

**SENIOR EMPLOYMENT RESEARCH OFFICER
EMPLOYMENT AND MAN POWER PLANNING, GOVT. OF
TRIPURA**

Certification			
To Whom So Ever It May Concern			
The above items of Career choice goals and vocational outcome expectations are valid as per their relevance and clarity of content is concerned, for the level of senior / secondary school students.			
 20/03/2024 (A.R. BHATTACHARJEE) Senior Research Officer, Head of Office Directorate of Employment Services, & Manpower Planning, Govt. of Tripura. Expert 1	Signature with Seal Expert 2	Signature with Seal Expert 3	Signature with Seal Expert 4
Signature Expert 5	Signature Expert 6	Signature Expert 7	Signature Expert 8


Udaipur | 13 April 2025 at 12:18 pm

CERTIFICATE
INTERNATIONAL CONFERENCE

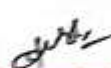
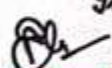
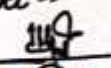


CERTIFICATE
NATIONAL SEMINAR

S.No. 296


NATIONAL SEMINAR
EMERGING TRENDS AND APPROACHES
IN TEACHING AND LEARNING
March 28-29, 2024
ORGANIZED BY:
VARDHAMAN COLLEGE, BUNOR (U.P.) INDIA
(Affiliated to M.J.P. Rohilkhand University, Bareilly)
SPONSORED BY:
Department of Higher Education, Uttar Pradesh (India)
Certificate of Participation

This is to certify that Prof./Dr./Mr./Ms/ Patal Kumar Murasing of Lovely
Professional University Punjab participated in the National Seminar on "Emerging
Trends and Approaches in Teaching and Learning" as Delegate/Research Scholar/Student, held at Vardhaman
College, Bijnor. He/She also presented a paper entitled "A narrative study on the
literature Review of vocational outcome expectations in the
Indian context"

 (Prof. Dharmendra Kumar) Organizing Secretary	 (Prof. S.K. Joshi) Co-ordinator	 (Prof. Padam Shree) Convener	 (Prof. C.M. Vain) Principal
---	---	---	---

Validation of Career Choice Goals Scale on Indian Senior Secondary School Students using Network Psychometrics Approach

Patal Kumar Murasing,

Research Scholar, School of Education, Lovely Professional University, Phagwara, Punjab, India

Email: patalkumarmurasing00@gmail.com

Dr. Rajib Chakraborty,

Associate Professor, School of Education, Lovely Professional University, Phagwara, Punjab, India, Email:

rajibchakraborty07@gmail.com*

ORCID: <https://orcid.org/0000-0002-2176-9092>

Dr. Navdeep Singh Raji,

Assistant Professor, M.K. College of Education, Jalandhar, Punjab, India

Email: navdeep.raji22@gmail.com

ABSTRACT

The 15 items Career goals scale developed by Graco (2016) was extended in the Indian context on 353 secondary school students and validated using network approach. While the default "glasso" approach of exploratory graph analysis (EGA) using "EGAnet" package of R 4.2.3 version, extracted two clusters, the "TMFG" approach extracted three factors, with both the networks having the same entropy estimate of -7.204. Following the principle of parsimony (Vandekerckhove et al., 2015), the two clusters network structure was retained, and also since it was in line with the original work of Seibert et al., (2013). Unique variance analysis did not report any node redundancy. The structural consistency estimates obtained of the "extrinsic" and "intrinsic" clusters, using "bootnet" package, were acceptable at 0.622 and 0.948 respectively. The package "mgm" was used to compute node predictability and "qgraph" package plotted the same. The ordinal confirmatory factor analysis using "WLSMV" estimator found acceptable goodness of fit estimates (cfi.robust=0.949; tli.robust=0.939; srmr_bentler=0.038; rmsea.robust=0.061). The "LASSO and EBIC" techniques based regularized network structure and centrality indices plots were obtained. The edge weight accuracy confidence interval plot was found to be non-significant indicating trustworthy ordering of the edge weights in the network, obtained through the comparison of sample and bootstrapped data for 500 iterations. The correlation stability CS coefficient was above the minimum benchmark strength-wise at 0.283, obtained using "qgraph" package. The package "psychTools" provided the edge difference and the node difference plots. The educational and psychometric implications of



Mediatory Role of Career Decision Making Self Efficacy and Vocational Outcome Expectations on the Relationship between Personality and Career Goals among Senior Secondary School Students

Patal Kumar Murasing¹, Dr. Rajib Chakraborty², Dr. Navdeep Singh Raji³

¹Research Scholar, School of Education, Lovely Professional University, Phagwara, Punjab, India

Email: patalkumarmurasing00@gmail.com

²Associate Professor, School of Education, Lovely Professional University, Phagwara, Punjab, India,

Email: rajbibchakraborty07@gmail.com*ORCID: <https://orcid.org/0000-0002-2176-9092>

³Assistant Professor, M.K. College of Education, Jalandhar, Punjab, India Email: navdeep.raji22@gmail.com

Abstract: Current research investigates that personality traits as well as career goals among secondary school students are mediated by Vocational Outcome Expectations (VOE) and Career Decision Making Self Efficacy (CDMSE). Employing Big Five personality traits framework, study analyzes how these traits influence students' career choices and the mechanisms through which self-efficacy and outcome expectations mediate this relationship. Data were collected from 568 secondary school students in the 11th and 12th grades, representing eight schools across eight districts in Tripura, India. Deploying a quantitative approach, standardized questionnaires were administered to assess personality factors, Outcome Expectations, Career Goals, and CDMSE. Results demonstrate personality factors or traits, especially Openness, have a crucial role in the student's Choice Goals, with CDMSE mediating as a significant factor and VOE enhancing this relationship, stressing the relevance of CDMSE in pursuit of career goals. The findings suggest that promoting CDMSE may assist students in utilizing their personality factors more efficiently in the formulation and achievement of career objectives, which are of high degree. However, as the research is based on self-assessment questionnaires, it has certain limitations with respect to generalizing findings, and additional factors that affect Choice Goals should also be analyzed further. These limitations provide potential areas for future research, which should focus on the impact of specific educational programs targeted to enhance CDMSE on student outcomes in different contexts.

Keywords: Career Goals, Vocational Outcome Expectations, Senior Secondary School Students, Mediation Analysis, Personality Traits, Career Decision-Making Self-Efficacy, Social Cognitive Career Theory.

UGC-CARE PAPER PUBLICATION

शोध - प्रभा- Shodh Prabha (UGC Care Listed Journal)

ISSN: 0974-8946

A Refereed and Peer- Reviewed Quarterly Research Journal

Vol: 49, No.3, July-Sep 2024

REGRESSION ANALYSIS OF PERSONALITY, CAREER DECISION- MAKING SELF-EFFICACY AND VOCATIONAL OUTCOME EXPECTATIONS ON CHOICE GOALS OF SECONDARY SCHOOL STUDENTS

Mr. Patal Kumar Murasing

Ph.D. Scholar, School of Education, Lovely Professional University, Phagwara, Punjab, India

Dr. Rajib Chakraborty

Associate Professor, School of Education, Lovely Professional University, Phagwara, Punjab,
India

ABSTRACT

This study studied the impact of personality traits, career decision-making self-efficacy (CDMSE), and vocational outcome expectations on the choice goals of secondary school students. The research used a regression analysis approach to identify how these psychological factors influenced students' future career-related perspectives. Data were collected from Central Board of Secondary Education (CBSE) affiliated secondary school students (11th and 12th grade) across three districts of Tripura state, India. The standardized instruments used included the Big Five Personality Traits Inventory of John et al. (1991), the Career Decision Self-Efficacy Scale Short Form (CDMSE-SF) of Javed and Khan (2018), the Vocational Outcome Expectations Scale of Metheny and McWhirter (2013), and the Career Choice Goals Inventory (CCGI) of Seibert et al. (2013). The study involved 811 student participants from the state of Tripura, selected using a simple random sampling technique after obtaining permission to collect data from the higher authorities of school education in the state. The results indicate that personality traits such as conscientiousness, extroversion, and openness significantly predict CDMSE and vocational outcome expectations. The study revealed that high levels of Career Decision Self-Efficacy (CDMSE) and positive vocational outcome expectations were strong predictors of career choice goals.

KEYWORDS: Regression Analysis, Personality traits, Career Decision-Making Self-Efficacy Vocational Outcome Expectations, Career Choice.

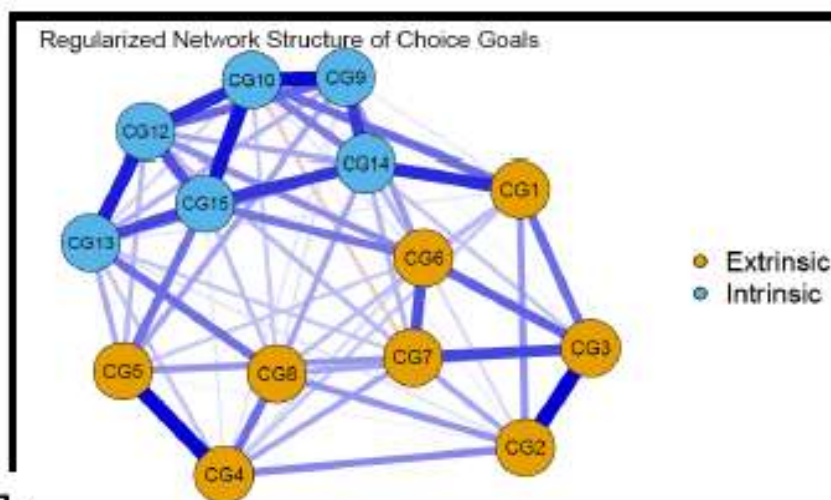


Copyright

 INTELLECTUAL PROPERTY INDIA भारतीय न्यायिक प्रणाली		 भारत सरकार	Extracts from the Register of Copyrights	
प्रतिनिधित्वकार कार्यालय, भारत सरकार Copyright Office, Government Of India				
			Form/Cs-1 dated 31/03/2005	
1. प्रतिनिधित्वकारी का पता Name, address and nationality of the applicant			L-161237/2025 LOVELY PROFESSIONAL UNIVERSITY, LOVELY PROFESSIONAL UNIVERSITY, TALANDHAR, DELHI-GT ROAD, PHAGWARA, PUNJAB-140411 INDIAN	
2. कार्य का प्रतिनिधित्वकारी का पता Name, address and nationality of the author			OWNER	
3. कार्य का नाम Title of the work			LITERARY-DRAMATIC WORK: THE GRAPHICAL ABSTRACT PRESENT THE REGULARIZED NETWORK STRUCTURE OF THE CHOICE GOALS IN THE INDIAN CONTEXT	
4. कार्य का भाषा Language of the work			ENGLISH	
5. कार्य का नाम Name, address and nationality of the author and if the author is deceased, date of his decease			DR. RAJ CHAKRABORTY, LOVELY PROFESSIONAL UNIVERSITY, TALANDHAR, DELHI-GT ROAD, PHAGWARA, PUNJAB-140411 INDIAN DR. NAVDEEP SINGH RAI, M.C. COLLEGE OF EDUCATION, TALANDHAR, PUNJAB-14003 INDIAN PATAL KUMAR MEHRASINGH, LOVELY PROFESSIONAL UNIVERSITY, TALANDHAR, DELHI-GT ROAD, PHAGWARA, PUNJAB-140411 INDIAN	
6. कार्य का नाम Name, address and nationality of the publisher			UNPUBLISHED	
7. कार्य का नाम Name, address and nationality of the publisher			N/A	
8. कार्य का नाम Name, address and nationality of the publisher			N/A	
9. कार्य का नाम Name, address and nationality of the publisher			N/A	
10. कार्य का नाम Name, address and nationality of the publisher			N/A	
11. कार्य का नाम Name, address and nationality of the publisher			N/A	
12. कार्य का नाम Name, address and nationality of the publisher			N/A	
13. कार्य का नाम Name, address and nationality of the publisher			N/A	
14. कार्य का नाम Name, address and nationality of the publisher			N/A	
15. कार्य का नाम Name, address and nationality of the publisher			N/A	
16. कार्य का नाम Name, address and nationality of the publisher			N/A	
17. कार्य का नाम Name, address and nationality of the publisher			N/A	
18. कार्य का नाम Name, address and nationality of the publisher			N/A	
19. कार्य का नाम Name, address and nationality of the publisher			N/A	
20. कार्य का नाम Name, address and nationality of the publisher			N/A	
21. कार्य का नाम Name, address and nationality of the publisher			N/A	
22. कार्य का नाम Name, address and nationality of the publisher			N/A	
23. कार्य का नाम Name, address and nationality of the publisher			N/A	
24. कार्य का नाम Name, address and nationality of the publisher			N/A	
25. कार्य का नाम Name, address and nationality of the publisher			N/A	
26. कार्य का नाम Name, address and nationality of the publisher			N/A	
27. कार्य का नाम Name, address and nationality of the publisher			N/A	
28. कार्य का नाम Name, address and nationality of the publisher			N/A	
29. कार्य का नाम Name, address and nationality of the publisher			N/A	
30. कार्य का नाम Name, address and nationality of the publisher			N/A	
31. कार्य का नाम Name, address and nationality of the publisher			N/A	
32. कार्य का नाम Name, address and nationality of the publisher			N/A	
33. कार्य का नाम Name, address and nationality of the publisher			N/A	
34. कार्य का नाम Name, address and nationality of the publisher			N/A	
35. कार्य का नाम Name, address and nationality of the publisher			N/A	
36. कार्य का नाम Name, address and nationality of the publisher			N/A	
37. कार्य का नाम Name, address and nationality of the publisher			N/A	
38. कार्य का नाम Name, address and nationality of the publisher			N/A	
39. कार्य का नाम Name, address and nationality of the publisher			N/A	
40. कार्य का नाम Name, address and nationality of the publisher			N/A	
41. कार्य का नाम Name, address and nationality of the publisher			N/A	
42. कार्य का नाम Name, address and nationality of the publisher			N/A	
43. कार्य का नाम Name, address and nationality of the publisher			N/A	
44. कार्य का नाम Name, address and nationality of the publisher			N/A	
45. कार्य का नाम Name, address and nationality of the publisher			N/A	
46. कार्य का नाम Name, address and nationality of the publisher			N/A	
47. कार्य का नाम Name, address and nationality of the publisher			N/A	
48. कार्य का नाम Name, address and nationality of the publisher			N/A	
49. कार्य का नाम Name, address and nationality of the publisher			N/A	
50. कार्य का नाम Name, address and nationality of the publisher			N/A	

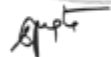
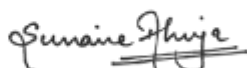
Title of the work: Regularized Network Structure of the Choice Goals in the Indian Context
Name of authors: Patal Kumar Murasing Dr. Rajib Chakraborty and Dr. Navdeep Singh Raji
Summary of graphical abstract: Seibert et al., (2013) developed the choice goals scale comprising of 10 items, with five items each belonging to the two extracted factors of Intrinsic and extrinsic choice goals. However, owing to the less number of items per factor, the internal consistency reliability Cronbach alpha obtained in this scale was less for the factors. The authors suggested addition of more items per factor in the succeeding studies. Graco (2016) took this initiative and extended the number of items to 15. However, the exploratory factor analysis technique extracted three factors, namely, intrinsic, extrinsic and status, which were later poorly confirmed through confirmatory factor analysis technique. The investigator expressed confusion regarding the status of the factors making up the construct Choice goals. To resolve this gap, the novel approach of Network psychometrics was applied for the validation of this scale on 353 secondary school students of Agartala, Tripura, India. Exploratory graph analysis technique using Glasso method extracted two clusters, extrinsic and intrinsic, akin to Seibert et al., (2013) study. The item/node 11 displayed split loading and hence was deleted from the further analysis. The remaining 14 items of the scale displayed robust psychometric properties like fine goodness of fit estimates through ordinal confirmatory factor analysis, structural consistency, node predictability, network loadings, centrality indices like strength, closeness and betweenness, edge weight accuracy confidence interval, and correlation stability coefficient at 0.283, along with edge difference and node difference plot. The present study addressed the limitations of both the previous studies of Seibert et al., (2013) and Graco (2016) while retaining their merits of being strongly grounded in theory and having fairly good length of the instrument, extending the validity of the tool cross-culturally and a fresh group of secondary school students.

Graphical Abstract:



अविनाश
अविनाश

CERTIFICATE
HUMAN RESOURCE DEVELOPMENT CENTER (HRDC), LOVELY
PROFESSIONAL CENTER

HUMAN RESOURCE DEVELOPMENT CENTER [Under the Aegis of Lovely Professional University, Jalandhar-Delhi G.T Road, Phagwara (Punjab)]	
	Certificate No. 261395  Certificate of Participation This is to certify that Mr. Patal Kumar Murasing S/o Sh. Shyam Kumar Murasing, Assistant Professor, Department of Education, Adwaita Malla Barman Smriti Mahavidyalaya, Amarpur, Tripura participated in Short Term Course on Scale Construction and Standardization organized by Lovely Professional University w.e.f. February 20, 2023 to February 25, 2023 and obtained "C" Grade. Date of Issue : 25-02-2023 Place : Phagwara (Punjab), India  Prepared by (Administrative Officer-Records)  Checked By Program Coordinator  Head Human Resource Development Center

CERTIFICATE
GOOD CLINICAL PRACTICE



NIDA Clinical Trials Network

Certificate of Completion

is hereby granted to
Patal Murasing
to certify your completion of the six-hour required course on:

GOOD CLINICAL PRACTICE

MODULE:	STATUS:
Introduction	N/A
Institutional Review Boards	Passed
Informed Consent	Passed
Confidentiality & Privacy	Passed
Participant Safety & Adverse Events	Passed
Quality Assurance	Passed
The Research Protocol	Passed
Documentation & Record-Keeping	Passed
Research Misconduct	Passed
Roles & Responsibilities	Passed
Recruitment & Retention	Passed
Investigational New Drugs	Passed

Course Completion Date: 24 April 2024

CTN Expiration Date: 24 April 2027

Eve Jelstrom

Eve Jelstrom, Principal Investigator
NDAT CTN Clinical Coordinating Center

Good Clinical Practice, Version 5, effective 03-Mar-2017

This training has been funded in whole or in part with Federal funds from the National Institute on Drug Abuse, National Institutes of Health, Department of Health and Human Services, under Contract No. HHSN27201201000024C.