

An Assessment of Career Self-Efficacy Belief as a Mediator in the Relationship between Self-Esteem and Career Choice Behavior among Secondary School Students in Migori Sub-County, Kenya

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ABSTRACT

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Previous studies indicate that career choice has become a problem to secondary school students all over the world, Kenya included. Migori sub-county in Kenya is particularly disadvantaged in terms of career development in comparison with neighboring sub-counties such as Kisii. The purpose of this study was to establish the mediating role of career self-efficacy belief in the relationship between self-esteem and career choice behavior among secondary school students in Migori sub-county. Descriptive Survey Design and Correlation Design were used. The Rosenberg Self-Esteem Scale, Career Decision Scale and Career Decision Making Self Efficacy Scale-Short Form were used to collect data from 322 students that was sampled from a target population of 2010 students. Test-re-test reliability was estimated by Pearson's r which yielded a value of .82 for Rosenberg Self-Esteem Scale, .80 for Career Decision Scale and .84 for Career Decision Making Self-Efficacy Scale-Short Form. Quantitative data was analyzed using descriptive statistics that included frequencies, percentages, means and standard deviations. Structural Equation Modeling was used to make statistical inference using model fit and regression estimates. The study revealed that career self-efficacy belief mediates in the relationship between self-esteem and career choice behavior. It was concluded that self-esteem does influence career choice behavior and that this influence can be further improved with the introduction of career self-efficacy belief. It was however noted that career counselors were unaware of career self-efficacy belief and therefore the study recommended organization of in-service training for career counselors to enlighten them on the role of career self-efficacy belief in the career choice process so that they aid in improving it to enhance students' career choice. The findings are significant to the students, career counselors and policy makers to improve students' career choice by raising their self-esteem and career self-efficacy belief.

Key words: Confirmatory Factor Analysis, Structural Equation Modeling, Self-esteem, Career choice behaviour, Career Self-Efficacy Belief.

1.0 Introduction

1.1 Background

A career may be defined as that which covers a sequence of positions, jobs, vocations or occupations that one person engages in during his/her working life. Wattles (2009) reckons that choosing a career path or course of action essentially boils down to a career decision-making process. The effectiveness of an individual's career decision-making relies heavily on the available information at the decision-making point.

Career choice has become a complex science with the advent of information technology, the emergence of post-industrial revolution and job competition. As observed by Wattles (2009), one has not only to make due career planning but also exhaustive career research before making a career choice so as to adjust with the evolving socio-economic conditions. Ohiwerei and Nwosu (2009) noted that the choice of work is one of the most important decisions one makes in life as it

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determines to a large extent a person's social status, income, choice of friends and lifestyle.

Career choice has often been a problem to students all over the world. This has been more particularly so in Kenya where Form Four secondary school students make their career choices before sitting for their final Kenya Certificate of Secondary Examination at the end of every year. The results of this final examination determine who joins university and who does not. Before making their career choices, students are often provided with a list of careers from which they are supposed to make choices. Most of the students lack adequate information regarding various careers hence the choices that they make are embedded in their perception of the ideal job and the subjects they study in secondary school (Kochung & Migunde, 2011). The study by Kochung and Migunde (2011) reveals that secondary school students display lack of information at the career decision stage and are ill prepared to make an appropriate career choice. It is therefore important to establish the extent to which secondary school students are prepared to make career choice.

Melgosa (2014) asserts that self-esteem is an important factor in career development. Robins et al. (2002) carried out a study on self-esteem that covered the important life stages from childhood until old age. They found that it is at the adolescent period that self-esteem is at its lowest, thus raising a clear need to address this problem at this stage. Moreover, only a few studies have determined the relationship between self-esteem and career choice behavior. This is evidence of the importance of conducting a study to determine the nature of such a relationship.

Bandura (1977) reckons that self-esteem and self-efficacy are correlated to each other. For a person's self-esteem to influence his/her career choice behavior, it will only do this by first making him/her feel self-efficacious enough to successfully carry out the task in the chosen career. Self-esteem

is your opinion of yourself. Having a high self-esteem could help you be more confident, thus giving you self-efficacy in some tasks. In his work, Bandura (1977) looks at the relationship between self-esteem and career self-efficacy belief but fails to investigate whether this belief in confidence to carry out a particular career task translates to the choice of the career associated with that career task. It is this gap that this study sought to fill in Migori setting.

Studies such as Okediji et al. (2009), Nesdale and Pinter (2000), Tella and Ayemi (2007), Salami (2010), Murugami (2010) and Kagume (2010) have investigated the effect of career self-efficacy belief on career choice behavior with all of them affirming that career self-efficacy belief level determines to a great extent the level of career choice behavior. All these studies have however failed to look at a situation where career self-efficacy belief mediates in the relationship between self-esteem and career choice behavior. The current study therefore sought to bridge this gap by considering a situation where career self-efficacy belief mediates in the relationship between self-esteem and career choice behavior in Migori sub-county.

With 86% of the population dependent on Agriculture, 6% on self-employment, 4% on informal employment and only 4% on formal employment, Migori sub-county in Kenya stands at a critical point in terms of career development. With just 4% of the population being in formal employment, it lags behind its neighboring sub-counties such as Kisii which has 15.2% of its population being in formal employment. As a matter of fact, records at the Migori sub-county education office affirm that out of the 34 schools in the sub-county, only 2 have functional guidance and counseling offices where learners can get career guidance from. It is for this reason that the sub-county was selected for this study.

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1.2 Objectives of the Study

The purpose of this study was to investigate the mediating role of career self-efficacy belief in the relationship between self-esteem and career choice behavior among secondary school students in Migori sub-county, Kenya. The objectives of the study are to:

- i. Establish the level of self-esteem of secondary school students in Migori sub-county.
- ii. Establish the career choice behavior of secondary school students in Migori sub-county.
- iii. Establish the career self-efficacy belief of secondary school students in Migori sub-county.
- iv. Determine the relationship between self-esteem and career choice behavior of secondary school students in Migori sub-county.
- v. Evaluate existence of a mediating relationship among self-esteem, career self-efficacy belief and career choice behavior.

1.3 Limitation of the Study

Some students complained about the length of the Career Decision Scale and Career Decision Self-Efficacy Scale-Short Form. The length of the scales could have created some setback on the quality of data collected.

2.0 Research Methodology

2.1 Research Design

Descriptive survey design and correlation design were used in this study. Descriptive survey design was used primarily because it is quick and practical (Orodho, 2004). Correlation design on the other hand was used because of its suitability to determine relationships among variables thus enabling researchers to make predictions (Orodho, 2004).

2.2 Study Population

The population for this study consisted of 2010 Form III students of 2015 in Migori sub-county of which 1205 were boys and 805 were girls. The Form III class was chosen because they had gone through career guidance from their respective career counselors during subject selection process and had henceforth selected subjects of study based on the requirements for the chosen careers.

2.3 Sampling Technique and Sample Size

The following Fisher and Tippett (1928) formula was used to determine the sample size:

$$n_f = \frac{n}{1 + \frac{n}{N}}$$

Where n_f is the sample size, n is the desired sample size when the study population is less than 10,000 and N is the estimated population size;

$$n = z^2 pq / d^2$$

where, p is the proportion having desired characteristics =0.50, $q = (1-p)=0.5$, z is the Z score equal to 1.96 at the 95% confidence interval, $d = 1 - (95/100)=0.05$.

Hence, $n = 1.96^2 \times 0.50 \times 0.50 / 0.05^2$ giving $n = 384$.

Thus n_f , the sample size, was set at 322

Purposive sampling was used to select 10 schools with regard to category such as mixed day school, boys boarding school, girls boarding school.

Simple random sampling technique was used to select the names of 900 students from the 10 schools purposively sampled. A total of 322 names were then picked with replacement randomly noting all the names already selected to avoid repetition.

2.4 Research Instruments

Three instruments were used for data collection. These were Rosenberg Self-Esteem Scale (RSE),

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Career Decision Scale (CDS) and Career Decision Making Self-Efficacy Scale-Short Form (CDMSE-SF) The instruments are described below.

2.4.1 Rosenberg Self-Esteem Scale (RSE)

To measure self-esteem of students, the Rosenberg Self-Esteem Scale (RSE) was used. The Rosenberg Self-Esteem scale (Rosenberg, 1965) is the most widely used measure of global self-esteem (Demo, 1985). The scale is a brief and uni-dimensional measure of global self-esteem, with questions related to overall feelings of self-worth or self-acceptance. The scale has ten items on a 5-point Likert-type scale requiring responses of Strongly Agree (4), Agree (3), Undecided (2), Disagree (1) and Strongly Disagree (0). The items are of two categories, that is, positive self-view and negative self-view. For the items with negative self-view, the scoring is reversed; (0 = 4, 1 = 3, 2 = 2, 3=1 4=0). For those items with positive self-view, the scores are simply added. RSE has demonstrated good reliability and validity across a large number of different sample groups (Demo, 1985). Its test-retest reliability in this study was .82 indicating high reliability.

The 10 items in the Rosenberg self-esteem scale fall under two sub-components which are self-competence and self-liking. Self-competence is the instrumental feature of the self as causal agent, the sense that one is confident, capable, and efficacious and self-liking which is the intrinsic feature of the self as a social object, the sense that one is a good person, is socially relevant, and contributes to group harmony (Tafarodi & Milne, 2002; Tafarodi & Swann, 2001). Based on the two definitions, self-competence is more of belief in personal self as opposed to social self in self-liking.

2.4.2 Career Decision Scale (CDS)

In studying career choice behavior, the Career Decision Scale was used. The CDS by Osipow (1987) is an instrument used to assess career

decisiveness. The instrument contains 19 items, two that measure career certainty and 16 measuring career uncertainties and one free response item, which allows respondents to list other barriers, not reported in the scale items. Responses are recorded on a 5-point Likert-type scale ranging from 0 - "not at all like me" to 4 - "exactly like me." Scores on the Certainty Scale can range from 2 to 10 with higher scores indicating greater certainty. Scores on the Indecision Scale can range from 16 to 80 with higher scores indicating greater indecision. The Career Decision Scale has been employed in a large number of studies which have examined its validity and have found it to be a valid instrument (Osipow, 1987). Its test-retest reliability coefficient was .80 indicating high reliability.

2.4.3 Career Decision Making Self-Efficacy Scale-Short Form (CDMSE-SF)

To study career self-efficacy belief, Career Decision Making Self-Efficacy Scale-Short Form (CDMSE-SF) was used. The Career Decision Making Self-Efficacy Scale (Betz, Klein & Taylor, 1996) measures an individual's confidence that they can successfully complete career tasks and consists of a total of 25 questions. The responses are scored on a 5-point interval Likert-type scale, and are; (0) No Confidence at All (1) Very Little Confidence (2) Moderate Confidence (3) Much Confidence (4) Complete Confidence. The CDMSE-SF contains five subscales and was used for this study because research has shown that the 25-item scale is as highly reliable and valid as the longer 50-item scale (Betz & Taylor, 2001).

2.5 Data Collection Procedure

The researcher sought permission for data collection through the Maseno University School of Graduate Studies (SGS) which gave an introductory letter. An application was then made to the Maseno University Ethics Review Committee which gave the authority to collect data. The researcher then

visited the Migori County Director of Education (CDE) and the Migori Sub-County Education Office (SCEO) to give information about the intended study. The researcher then visited the schools sampled for the study to seek permission from the principal to conduct the study and then requested the principal to seek permission from the Parents Teacher Association (PTA) to allow students participate in the study. The researcher booked for appointment for actual data collection. All ethical considerations were upheld including informed consent.

2.6 Methods of Data Analysis

Descriptive and inferential statistics were used to analyze the data. More specifically, frequencies, percentages, means, standard deviations and graphs were used to report descriptive statistics and Structural Equations Modeling, a multivariate technique using AMOS software, was used for inferential statistics.

3. Results And Discussion

3.1 Level of Students' Self-Esteem

Analysis of data was conducted and discussed at two levels; self-liking and self-competence sub-components of self-esteem and overall level of students' self-esteem.

3.1.1 Self-competence and self-liking sub-components of self-esteem

The first 5 items in Rosenberg Self-esteem Scale (RSE) fall under self-competence and the last 5 fall under self-liking. The scores for the first 5 items were collapsed into one score named self-competence and the last 5 collapsed into another called self-liking. The results were as given in Table 1.

Table 1: Self-Competence and Self-Liking Sub Components of Self-Esteem

Item	Mean
1. Self-competence	3.47
2. Self-liking	3.14

Of the two sub-components of self-esteem, self-competence ranked higher (Mean=3.47) than self-liking (Mean=3.14). The difference in ranking therefore is occasioned by the fact that students from Migori sub-county believe more in self-competence than collective ability based on the fact that they scored highly on items measuring self-competence than those measuring self-liking. This could be as a result of the societal orientation which exalts individuality over collectivity.

This finding concurs with Tafarodi and Swann (2001) who affirm that there is an inherent trade off between these competing components of global self-esteem. In individualistic cultures (such as the United States), self-confidence, independence, and the priority of the instrumental self takes precedence over group harmony, resulting in higher levels of self-competence but lower levels of self-liking. In collectivistic cultures (such as China), the individual needs for self-confidence and efficacy are subordinated to the social needs of others, resulting in overall higher self-liking but lower self-competence. In one study, Tafarodi and Swann (1996) found that Chinese college students score higher on self-liking than American students but lower in self-competence.

3.1.2 Overall level of students' self-esteem

Responses on Rosenberg Self-esteem Scale (RSE) indicating strongly disagree and disagree are categorized as low self-esteem scores. On the other hand, responses on RSE indicating agree and strongly agree are categorized as high self-esteem scores. The number of respondents who strongly disagreed was therefore added to those who disagreed to give the total for respondents with low esteem. Similarly, the number of respondents who strongly agreed was added to those who agreed to give the total for respondents with high self-esteem. Those who were undecided were categorized as medium self-esteem. The result is shown in

Table 2.

Table 2: Overall Level of Students' Self-Esteem

Level of self-esteem	F	%
High	278	86.3
Medium	14	4.3
Low	30	9.3

Key: F-frequency, %-percentage

The level of self-esteem of students was quite high with 278 (86.3%) falling in this category. Only 30 students (9.3%) had low self-esteem. Students from Migori sub-county can be said to be having high levels of self-esteem. This finding is quite in contrast with those of Okoko (2013) who found that 137 out of 142 students (74%) from the sub-county schools had low self-esteem with only 7% having high self-esteem.

Wylie (1979) notes that previous research indicate persistent relationship between various aspects of self-perceptions and a variety of school related variables including perceived social status among peers, pro-social behavior, emotional status, school administration, teachers, counselors and overall school achievement. All these factors influence a student's self-esteem and therefore one cannot single out a particular variable to be the main factor. The high level of self-esteem in the current study could be as a result of interplay of various factors listed above.

3.2 Student's Career Choice Behaviour

This section has two parts; students' career choices and overall level of students' career choice behavior.

3.2.1 Students' Career Choices

The CDS provides respondents with an opportunity of stating their career choice. The students' responses about which career choices they wanted is presented in Table 4. It is evident from Table 4 that the choice of being a doctor ranked highest with 64 students (19.88%) choosing it. Of these, 41 were males with females only being 23. The choice

of being a lawyer followed closely with 52 students (16.15%) choosing it. Again, a larger proportion of males (18.82%) than females (3.68%) chose it. Engineering attracted 40 students (12.42%) but it looked like a male career with only 5 females (3.68%) out of 40 choosing it.

Table 4: Students' career choices

Career	Males		Females		Total	
	F	%	F	%	f	%
Doctor	41	22.04	23	16.91	64	19.88
Lawyer	33	17.74	19	13.97	52	16.15
Engineer	35	18.82	5	3.68	40	12.42
Teacher	16	8.60	21	15.44	37	11.49
Nurse	2	1.08	26	19.11	28	8.70
Pilot	13	6.99	3	2.21	16	4.97
Police	7	3.76	3	2.21	10	3.11
Soldier	6	3.23	2	1.47	8	2.48
Chef	4	2.15	3	2.21	7	2.17
Secretary	0	0	6	4.41	6	1.86
Lecturer	5	2.69	1	0.74	6	1.86
Musician	3	1.61	3	2.21	6	1.86
Air hostess	0	0	5	3.68	5	1.55
Artist	3	1.61	0	0	3	0.93
Model	0	0	3	2.21	3	0.93
Scientist	1	0.54	0	0	1	0.31
Unstated	17	9.14	13	9.56	30	9.32
Total	18		13		32	100
	6		6		2	

However, this trend changes when it comes to careers perceived to be feminine in nature. Gender therefore seems to be a major factor in career choice as students tended to choose careers that are in line with their respective gender.

The choices of engineer, doctor and pilot were selected by more males than females. This is probably because males are more Mathematics and Science oriented. As noted by Ceci, Williams and Barnett (2009), males generally have a bias for Science and Mathematics and therefore pursue careers along this line. More females than males wanted to become nurses, secretaries, models and air hostesses. Contrary to this, more males than females wanted to become soldiers, chefs and artists. These differences are probable outcomes of historical stereotyping of these careers as belonging to one particular gender. Students choose them by

looking at same gender role models in their environment in agreement with Perrone et al. (2001) who found that role model supportiveness, and quality of relationship contributed to the career choice of students.

3.2.2 Overall level of students' career choice behavior

Information in Table 5 is a summary of responses in the Career Decision Scale (CDS). The information indicates that 255 students (79.2%) exhibited high CCB and only 5 of them (1.5%) exhibited low CCB. This high level of CCB could be attributed to the fact that the students had just gone through career counseling during subject selection process and were therefore enthusiastic about career choice. In terms of gender, the level of CCB was higher for males than females.

Table 5: Overall Level of student CCB across Gender

CCB level	Males		Females		Total	
	F	%	F	%	f	%
High	154	82.8	101	74.3	255	79.2
Medium	31	16.7	31	22.8	62	19.3
Low	1	0.5	40	2.9	5	1.5
Total	186	100.0	136	100.0	322	100.0

The findings of this study are in agreement with the results of Gitonga (2013) in Kiambu West District, Kenya, in which the percentage of those students below average was 36% and those above average was 64%. Those who were very certain about their career choice were 61 out of 170 (36%) thus presenting high level of career choice.

3.3 Relationship between Self-Esteem and Career Choice Behavior

In order to determine the relationship between Self-esteem and Career Choice Behavior, it was necessary to start by doing a Confirmatory Factor Analysis (CFA) between observed variables and their respective latent factors to evaluate the extent

to which the observed variables loaded on the latent factors, thus ensuring reliability of the observed variables. This was followed by running a Structural Equations Model (SEM) for the influence of Self-esteem on Career Choice Behavior, the two latent factors, and assessing model fit using various fit indices.

3.3.1 Confirmatory Factor Analysis (CFA)

Two factor CFA analyses were conducted. The first one was establishing the factor loadings of self-liking sub-scale (asl) and self-competence sub-scale (asc) as observed variables on self-esteem as the latent factor. The second CFA was meant to establish the factor loadings of uncertainty sub-scale (bi) and certainty sub-scale (bc) as observed variables on career choice behavior as the latent factor. The results for standardized regression weights for CFA are shown in Table 6.

Table 6: Standardized regression weights

Sub-scale	Scale	Estimate
Self-liking	<--- Esteem	.81
Self-competence	<--- Esteem	.70
Certainty	<--- Choice	.67
Uncertainty	<--- Choice	.63

Key: Esteem=Self-esteem; Choice=Career choice behavior

As is evident in Table 6, self-liking had the higher loading (.809) for self-esteem followed by self-competence (.699). For career choice behaviour, certainty had the higher loading (.670) followed by uncertainty (.635). To assess significance of the factor loadings, regression weights for the observed variables were calculated as provided in Table 7.

Table 7: Regression Weights

Sub-scale	Scale	Estimate	S.E	C.R.	P
Self-competence	<--- Esteem	.146	.032	4.545	.0006
Self-liking	<--- Esteem	.144	.060	2.408	.016
Certainty	<--- Choice	.225	.050	4.472	.0005
Uncertainty	<--- Choice	.217	.041	5.247	.0004

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Key: Esteem=Self-esteem; Choice=Career choice behavior; S.E.=Standard Error; C.R.=Critical Ratio

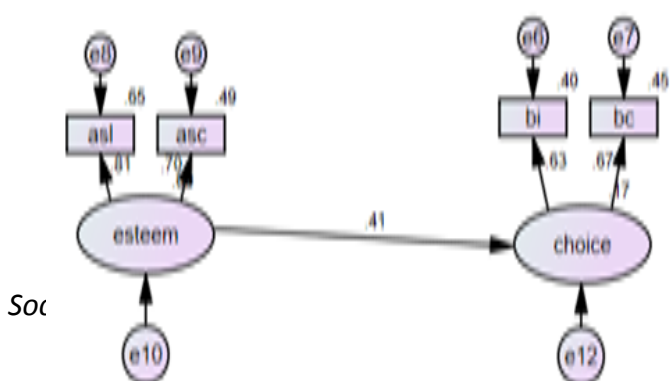
As is evident in Table 7, regression estimates for all the observed variables have C.R. greater than 1.96 with *p*-values below .05. Thus, all the observed variables significantly load on the latent factor implying that the observed variables are actual indicators of the latent factor.

3.3.2 Two-Factor Structural Equations Model

To assess the relationship between Self-esteem and Career Choice Behavior, a hypothesized model was drawn, run and then extracted from AMOS. Self-esteem was drawn as a latent factor with two observed variables of self-competence and self-liking that load onto it. Career choice behavior was the other latent variable having two observed variables of certainty and uncertainty loading onto it. Figure 3 represents the structural model of Self-esteem and Career Choice Behavior. Errors in the observed variables are represented by e6, e7, e8 and e9. Disturbances in the latent factors are represented by e10 and e12. It was further hypothesized that self-esteem influences career choice behavior.

Figure 3: A Two Factor Structural Model of self-esteem and career choice behavior

Key: asl=self-liking sub-scale, asc = self-competence sub-scale, esteem=self-esteem, bi=uncertainty sub-scale, bc=certainty sub-scale, choice=career choice behavior.



The regression weight of Self-esteem on Career Choice Behavior was .41. This is significant considering the fact that the relationship had a CR test of 3.500 and a *p*-value of .0003. This finding is consistent with that of Melgosa (2014) who found that self-esteem does influence career choice. Therefore, those with high self-esteem are very enthusiastic to make a career choice and those with low self-esteem tend to doubt their worthiness towards accomplishing various career tasks and therefore shy away from making such choices. The same position is held by Wilkinson (2010) who notes in his study that low self-esteem is something that permeates every aspect of our lives, making it difficult to interact with others and to get close to people because one is convinced that he/she is not good enough.

3.4 Model Fit

The fit index statistic tests the consistency between the predicted and observed data matrix with a view of finding out whether the observed actually measure the latent. Whereas there are dozens of fit indexes described in SEM literature, Garson (2007) observes that the chi-square fit index, also known as chi-square discrepancy test, is considered as the most fundamental and common overall fit measure. Thus, in a good model fit the value of chi-square should not be very significant, i.e., $p > 0.05$. However, one problem usually experienced through this test relates to the rejection probability of the model having direct interaction with the sample size. Moreover, the sensitivity level of chi-square fit index is very high, especially, towards the multivariate normality assumption violations. Many indexes have as such been introduced and

developed to avert or reduce the problems related to the chi-square fit index. For this reason, eight indices were used to test model fit. Their values are listed in Table 8. The model for measuring the relationship between the two latent factors was therefore of good fit.

Table 8: Results for fit indices

	Normal Chi-square Index (CMIN/DF)	Chi-Square Fit	Root Mean Square Residual (RMR)	Mean Square Error of Approximation (RMSEA)	Goodness of Fit Index (GFI)	Adjusted Goodness of Fit Index (AGFI)	Root Mean Square Error of Approximation (RMSEA)	Normed Fit Index (NFI)	Tucker Lewis Index (TLI)	Comparative Fit Index (CFI)
Default model	.109		.001		1.000	.998	.000	.999	1.026	1.000
Criterion for model fit	<2		Small as to approach 0		Between 0 and 1 with 1 indicating perfect fit	Between 0 and 1 with 1 or >1 indicating perfect fit	Approximately 0.05 or smaller	Between 0 and 1 with values close to 1 indicating perfect fit	Larger than 0.90	Between 0 and 1 with a minimum of .90
Outcome	Acceptable fit		Acceptable fit		Acceptable fit	Acceptable fit	Acceptable fit	Acceptable fit	Acceptable fit	Acceptable Fit

3.4 Mediating Role of Career Self-Efficacy Belief

To evaluate the existence of a mediating relationship, a Confirmatory Factor Analysis (CFA) between observed variables and their respective latent factors was run to evaluate the extent to which the observed variables loaded on the latent factors. This was followed by running a three factor Structural Equations Model (SEM) for self-esteem as the exogenous factor, career self-efficacy belief as the mediating factor and career choice behavior as the endogenous factor. The last bit was assessing model fit using various fit indices.

3.4.1 Confirmatory Factor Analysis (CFA)

Three factor CFA analyses were conducted. The first one was establishing the factor loadings of self-liking sub-scale (asl) and self-competence sub-scale (asc) as observed variables on self-

esteem as the latent factor. The second CFA was meant to establish the factor loadings of uncertainty sub-scale (bi) and certainty sub-scale (bc) as observed variables on career choice behavior as the latent factor. The third CFA established the factor loadings for occupational information (coi), problem solving (cps), planning (cp), self-appraisal (csa) and goal selection (cgs) sub scales as observed variables on career self-efficacy belief as latent factors. The results for standardized regression weights for CFA are shown in Table 9.

Table 9: Standardized Regression Weight

		Estimate
Asc	<--- Self esteem	.636
Asl	<--- Self esteem	.889
Cps	<--- Self efficacy	.815
Csa	<--- Self efficacy	.809
Cp	<--- Self efficacy	.749
Cgs	<--- Self efficacy	.786
Coi	<--- Self efficacy	.840
Bi	<--- Career choice	.640
Bc	<--- Career choice	.664

Key: asl= self liking sub scale, asc= self-c/tence sub scale, bi= uncertainty sub scale, Bc= certainty

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sub-scale, coi= occupational information, cps= problem solving sub scale, Cp= planning sub scale, csa=self-appraisal sub scale, cgs=goal selection.

As evident in Table 22, all the indicators have their standardized loadings falling within the same range with self-liking loading for self-esteem ranking highest at .889 and self-competence loading for self-esteem ranking last at .636. To assess significance of the factor loadings, regression weights for the observed variables were calculated as provided in Table 10.

Table 10: Regression Weights

		Estimate	S.E.	C.R.	P
Efficacy	<--- Esteem	.198	.082	2.419	.016
Choice	<--- Esteem	.246	.078	3.153	.002
Choice	<--- efficacy	.056	.046	1.228	.020
Asl	<--- Esteem	1.000			
Asc	<--- Esteem	.593	.135	4.405	.0008
Cps	<--- efficacy	1.000			
Csa	<--- efficacy	.972	.061	15.852	.0009
Cp	<--- efficacy	.889	.062	14.282	.0008
Cgs	<--- efficacy	1.010	.066	15.387	.0009
Coi	<--- efficacy	1.030	.062	16.726	.0009
Bi	<--- Choice	1.000			
Bc	<--- Choice	1.100	.281	3.915	.0009

Key: asl==self-liking sub scale, asc=self=competence sub scale, bi= uncertainty sub scale, bc= certainty sub-scale, coi= occupational information, cps= problem solving sub scale, cp= planning sub scale, csa=self appraisal sub scale, cgs= goal selection.

Self-liking loading for self-esteem, problem solving loading for career self-efficacy belief and uncertainty loading for career choice behavior are at a regression estimate of 1.0 which is a perfect loading. All the observed loadings for latent have Standard Errors of below .5, Critical Ratios of above 1.96 and p-values of less than .05. This implies that the CFA Test is proven significant as

all the observed variables load onto the latent variables significantly.

3.4.2 Three-Factor Structural Equations Model

To assess the mediating role of career self-efficacy belief on self-esteem and career choice behavior, a hypothesized model was drawn, run and then extracted from AMOS. Self-esteem was drawn as a latent factor with two observed variables of self-competence and self-liking that load onto it. Career choice behavior was the other latent variable having two observed variables of certainty and uncertainty loading onto it. The third latent was career self-efficacy belief with 5 observed variables of occupational information, problem solving, planning, self-appraisal and goal selection loading onto it. Figure 4 represents the structural model of Self-esteem, Career Choice Behavior and Career Self-Efficacy Belief. Errors in the observed variables are represented by e1, e2, e4, e5, e6, e7, e8, e9 and e10. Disturbances in the latent factors are represented by e3, e11 and e12. It was further hypothesized that career self-efficacy belief would mediate in the relationship between self-esteem and career choice behavior.

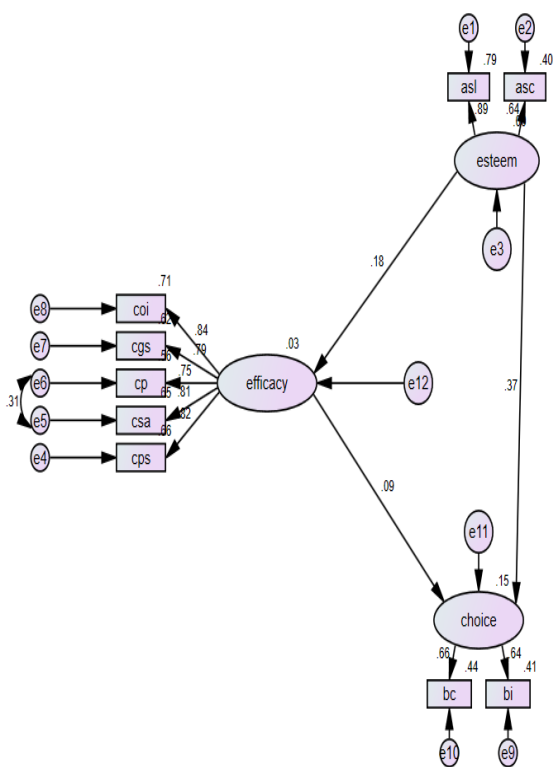


Figure4. A Three Factor Structural Model for self-esteem, career self-efficacy belief and career choice behavior extracted from AMOS

Key: asl= self liking sub scale, asc= self-competence sub scale, bi= uncertainty sub scale, bc= certainty sub-scale, coi= occupational information, cps= problem solving sub scale, cp= planning sub scale, csa= self appraisal sub scale, cgs= goal selection.

The regression estimate between career self-efficacy belief and career choice behavior has the least estimate of .094 followed by that of self-esteem and career self-efficacy belief at .176. The regression estimate between self-esteem and career choice behavior is highest at .37. This value is however lower than the original estimate found in the Two Factor model of .41 with a margin of .04. Since there is a reduction in estimate with the introduction of a third variable, the third variable of career self-efficacy belief is therefore said to mediate in the relationship between self-esteem and career choice behavior. The Three Factor

model is therefore said to be more parsimonious than the two-factor model.

The current study qualifies all the conditions set by Baron and Kenny (1986) who argued that for one to claim a mediating relationship there is need to first show that there is a significant relationship between the independent variable and the mediator. In the current study this relationship was .176. The next step is to show that there is a significant relationship between the mediator and the dependent variable, which in this study was .094. Then we need to show that there is a significant relationship between the independent and dependent variable which is .41 in the current study. The final step consists of demonstrating that when the mediator and the independent variable are used simultaneously to predict the dependent variable, the previously significant path between the independent and dependent variables is now greatly reduced, if not non-significant. Maximum evidence for mediation would occur if the relationship between X and Y which was initially significant before the introduction of M drops to 0. In the current study, this regression drops from .41 to .37 signifying the existence of mediation.

Having shown good ratings, it is therefore evident that career self-efficacy belief does influence the relationship between self-esteem and career choice behavior in a positive manner by reducing the path between SE and CCB. In this case, it is therefore important to introduce it in career counseling.

3.4 Model Fit

Just as in the two factor model, the three factor model proved to be a good fit by meeting all the set criterion as indicated in table 11 below.

Table 11: Results for fit indices

	Normal Chi-square Index (CMIN/DF)	Chi-Fit (RMR)	Root Mean Square Residual (RMR)	Mean Square Error of Approximation (RMSEA)	Goodness of Fit Index (GFI)	Adjusted Goodness of Fit Index (AGFI)	Root Square Error of Approximation (RMSEA)	Mean Error of Normed Index (NFI)	Fit Index (TLI)	Tucker Lewis Index (TLI)	Comparative Fit Index (CFI)
Default model	.720	.013	.989	.978	.000	.986	1.009	1.000			
Criterion for model fit	<2	Small as to approach 0	Between 0 and 1 with 1 indicating perfect fit	Between 0 and 1 with 1 or >1 indicating perfect fit	Approximately 0.05 or smaller	Between 0 and 1 with values close to 1 indicating perfect fit	Larger than 0.90	Between 0 and 1 with a minimum of .90			
Outcome	Acceptable fit	Acceptable fit	Acceptable fit	Acceptable fit	Acceptable fit	Acceptable fit	Acceptable fit	Acceptable fit	Acceptable fit	Acceptable fit	Acceptable fit

4. Conclusion and Recommendations

4.1 Conclusion

Based on the outcome of this study, it is concluded that secondary school students in Migori sub-county generally have high levels of self-esteem. However, they seem to be better in self-competence than self-liking components of self-esteem.

Similar to the above, the students' level of career choice behavior is high. Their career choice is mainly influenced by gender roles, prestige, level of wages associated with them and job availability. In particular, males tended to choose careers that call for ability in mathematics and science.

The level of career self-efficacy belief of students is high in Migori sub-county. Career self-efficacy belief is an important concept that needs to be used in career counseling.

Students' self-esteem in Migori sub-county has a direct positive relationship with their career choice behavior. Thus, an increase in self-esteem is associated with an improvement in career choice behavior.

There is a relationship among all the three variables of self-esteem, career choice behavior and career self-efficacy belief. Career self-

efficacy belief does mediate in the relationship between self-esteem and career choice behavior since it has power to reduce the level of relationship between self-esteem and career choice behavior if introduced into the relationship. Therefore for career choice to be improved the level of career self-efficacy belief should be enhanced.

4.2 Recommendations

The following recommendations were made based on the findings of the study:

- i. There needs to be intervention by both teachers and the Ministry of Education to break the alignment of certain careers to particular gender so that students can choose careers appropriately beyond gender barriers.
- ii. Self-esteem of secondary school students needs be enhanced by teachers and counselors alike as it is evident that it influences career choice behavior of students.
- iii. The government through the Ministry of Education should organize in service trainings for career counselors to train them on emergent issues such as career self-efficacy belief in career counseling.
- iv. Career self-efficacy belief of students should be enhanced by

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career counselors through appropriate counseling as this study has demonstrated that it improves career choice behavior.

4.3 Suggestion for Further Research

Based on the findings of the current study, the following is a suggestion for further study:

1. An assessment of moderation of sources of self-efficacy belief on the correlation between career self-efficacy belief and career choice behavior.

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