

An Analysis of Students' Choice determinants for Co-operative Majors at Moshi Co-operative University, Tanzania

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Abstract— This study focused on understanding factors that lead to the selection of a major in the cooperative field at the undergraduate level as well as the expectations toward pursuing the same at postgraduate level. The study utilized a sample of 162 students in the first, second and third years who were pursuing a Bachelor of Arts in Cooperative Management and Accounting (BACMA) degree. The study used binomial logistic regression models to predict the selection of co-operative majors. On one hand, university reputation, parents influence, the learning environment, and previous training in the cooperative, made a significant contribution to the selection of BACMA. On the other hand, the decision to pursue a course in the cooperative field in the next level of study was only predicted well by a background in co-operative training. Conclusively speaking, choice in career, institutional factors as well as family influences remain paramount to the choice of what to study at undergraduate level. However, what to study once a student has graduated with BACMA was best explained by previous training in cooperatives. Many factors that were important in determining the choice for a bachelor's degree in cooperative no longer influence the decision to advance in cooperative training. The study recommends further investigation involving former students who are already in the labor market to determine what constitutes their satisfaction with cooperative discipline as far as job search and/ or performance are concerned. Furthermore, there is a need to study university marketing strategies geared toward attracting more students into the cooperative field.

Key words: Cooperative, Motives, Expectations, BACMA, Choice.

I: INTRODUCTION

A cooperative is defined as an autonomous and democratically controlled enterprise owned and run by the people themselves for the sake of realizing their common goals; social, cultural, economic (Chambo, 2008). Over the years, cooperatives have been known for their pivotal role in stimulating and promoting socio-economic development at local and national levels (Grace, 2014; Schwettmann, 2014; Wanyama, 2016). The global cooperative economy is as powerful as the economy of France when measured in terms of gross domestic product (GDP). In other countries, cooperative sector contributes at least 10 percent of their GDP; New Zealand (20%), Netherlands (18%), France (18%) and Finland (14%). More than one billion people are members or clients of cooperative enterprises whereas more

than 770,000 cooperative offices and outlets create direct jobs to nearly 13 million people (Grace, 2014). Elsewhere in developing countries in Africa, especially south of the Sahara, more than 20 million people are members of cooperative enterprises.

Tanzania is one the countries in sub-Saharan Africa where the cooperative sector is a powerful house responsible for incubating and nursing social and economic development initiatives (Pollet, 2009; Sizya, 2001). As a result, the government has always been actively involved in seeing the effective growth and development of the sector (United Republic of Tanzania, 2005; 2001). Efforts by the government of Tanzania to revive, modernize and strengthen the cooperative sector through what came to be known as cooperative reform and modernization program (2005-2015), led to a significant increase both in the number of cooperatives and in individual membership. For instance, in the financial year 2005/06 there was 5700 and 750,000 cooperatives and members respectively while by 2010, cooperative organizations had nearly doubled, thus bringing the total membership to 2.3 million. However, between 2010 and 2015, cooperative enterprises declined while the membership increased slightly to 2.3 million. Mismanagement of funds, corruption, low creativity and innovation were all attributed to the poor performance of the cooperative sector (Mruma, 2014). The presence of these problems can partly be explained by a lack of experts in the cooperative sector (Bee, 2011; United Republic of Tanzania, 2005). As a result, there have been calls from different stakeholders to address this problem by strengthening the cooperative education institutions (Vanhuynegem, 2008; Bee, 2011; Kyazze, 2010). One of the recommendations was to increase the number of graduates in the cooperative sector so that they match the rapid expansion of the cooperative sector as well as a swiftly changing business environment. In this regard the then Moshi Cooperatives College, now Moshi Cooperative University (MoCU) was targeted.

Unlike many cooperative colleges in the African continent, MoCU has been a unique higher learning institution, offering specific cooperative programs at undergraduate level, and recently introduced higher degrees notably master's and doctorate in the same field (Bee, 2011; MUCCoBS, 2003). For

instance, during the academic year 2005/2006, the then Moshi constituent cooperative college introduced, for the first time, a bachelor degree program that came to be known as Bachelor of Arts in cooperative management and accounting (BACMA). This bachelor program was introduced mainly to prepare students for professional roles especially accounting officers, cooperative auditors and financial managers with high level skills for enhanced cooperative enterprise performance, policy promotion and development (MUCCoBS, 2003). Although MoCU is the lone higher learning institution in Tanzania where undergraduate and postgraduate studies in cooperative are offered, the number of new entrants in the said levels is very low compared to the sheer size of the cooperative sector in the country. There is a danger therefore that in the long run; such a decline in the rate of enrolment in cooperative training programs might cause some of these majors to be dropped from the university list, as it once happened in the Canadian universities (Coop Canada, 2017). It is probably crucial today to understand the current students' needs and wants, because this will help in the design of customer-oriented marketing strategies recommended by Kotler and Armstrong (2013).

This study is an important milestone for a number of reasons. Firstly, the results of this study will help the Moshi Co-operative University as a support institution accredited to oversee cooperative sector development, and other educational institutions to align their strategies on the basis motives and expectations of its students, both current and prospective. Secondly, the results of this study will help policymakers at various levels to reposition their strategies aimed at improving the functioning of the cooperative sector in the country and the continent at large. Thirdly, these results will lead to an increased theoretical understanding about cooperative majors which are yet to be put into research.

II: LITERATURE REVIEW

Studies show that some students at undergraduate level choose a major mainly because of the passion or innermost drive referred to as intrinsic motivation (Leon and Uddin, 2016; Pappu, 2004). Pappu (2004) found intrinsic motivation was the top choice motive by both Australian and New Zealand students enrolled for business major. A similar observation was made by Odia and Ogiedu, (2013); revealing a significant influence of factors forming the intrinsic motives of students as basis for deciding to study accounting at undergraduate level. Menzies and Tatroff (2012) reported a significant difference in enrolment by undergraduate male and female students in entrepreneurship courses across Canada. They found that male enrolment outnumbered the female. In Nigeria, Odia and Ogiedu, (2013) survey findings of 300 undergraduate students from three universities confirmed hypotheses that interest in the subject, a desire for figures, enjoyment in challenging majors all influence choices. In other studies (Menzies and Tatroff, 2012; Pappu, 2004), female and male students are affected differently by these personal factors.

Studies show the motivations surrounding the selection of majors in academic arenas is driven by the characteristics and future potentials that a major portrays given the perspectives of the prospective student. Studying the motivation for choosing or not choosing a pharmacy major among undergraduate students, Kashashian *et al.*, (2010) found that a great majority of students opted for pharmacy major with anticipation that the major would offer greater job security, provide them opportunities with high earnings as well as being a competitive career in the job market. Kumar and Kumar, (2013) contend that students choose a major among other things, provided they believe it can create greater employable chances compared to others.

Parents, relatives, close friends and teachers are regarded influential to a student planning to make the choice of what to study. Several studies, (Rababah, 2016; Owusu-Amoah, 2015), have reported the role of reference groups such as parents, peers, friends, teachers, high school counselors in influencing the choice of a major. A study by Rababah (2016) revealed influence of family members and peers in choosing accounting at university. In their survey study involving 300 undergraduate students from three universities in Nigeria, Odia and Ogiedu, (2013), concluded that influence of parents, friends and parent occupations were significant. Male and female students, however, differed significantly in the course of the major selection process. Males, more than females, were found to be influenced by reference people in deciding to pick accounting as a major.

Institutional related influences include the high quality of education provided by the University, the faculty, or the teaching or research competencies of the faculty members. A recent multi-country review shows this in four countries reviewed, China, United States, United Kingdom and United Arab Emirates (Davies, 2016). In another study involving 670 business students in India, it was found that the decision to enroll into a business major was attributed to the socially acceptable image of the University and its units (Kumar and Kumar, 2013). In another study, univariate F-test of two sample surveys, revealed a significant effect of academic reputation of the University and its units in influencing the choice of a major by undergraduate students (Pappu, 2004).

III: METHODS AND PROCEDURES

This study was carried out at Moshi Cooperative University (MoCU) involving 162 BACMA students in the first, second and third years. The choice of this university was strategic for two main reasons. First, MoCU is one of the few higher learning institutions in Africa that admits students in the cooperative discipline. Second, the University is one of the oldest working cooperative training institutions in Africa; consequently, it is beyond doubt that it is experienced in the provision of cooperative education and training. Furthermore, relying on BACMA students for data generation was considered reasonable because, unlike other cooperative courses at the university, BACMA students pursue the course

much longer than any other. While there are other courses at certificate and diploma levels in which cooperative subject features most, it was obvious at the lower levels, choices of what to study may not be at an individual student's discretion.

A questionnaire split into participants' background and choice motives was self-administered to current students during the second semester study in June 2017. The researcher handed over the questionnaires to the class representatives who in turn delivered them to their colleagues. The researcher, though an instructor in the same University, was not currently teaching either of the programs involved in the study. Therefore, any possible student-instructor bias was ruled out. Each questionnaire was preceded by an introductory remark that specified the objective of the study as well as the request to take part in the study. It was assumed that those who submitted the completed questionnaire had granted consent to take part in the study. Data was then checked before being entered into statistical package for social sciences version 25. Binomial regressions were performed on independent variables to predict effects on outcome variables. The first model was used to predict factors influencing the choice for BACMA as an undergraduate degree of study while the second regression model was concerned about the factors influencing the choice for cooperative major in the next level of study. Predictors indicating significant contribution to the model were interpreted in form of odd ratios, an alternative to unstandardized coefficients commonly interpreted in the binary logistic models (Field, 2009).

IV: STUDY FINDINGS

1. Demographic and Socio-economic Characteristics

This study involved 162 students in first (33%), second (34%) and third (33%) years pursuing Bachelor of Arts in Cooperative Management and Accounting (BACMA). Of the total, 30% and 66% were female and male students respectively while nearly 4% did not specify their gender. The majority of students were in their mid-20s (Mean=25, SD=3.2). Regarding the marital status, as expected, the majority (89%) were single while a small proportion (11%) were married. The fact that some undergraduate students are already married reveals a continuing trend of adults already with family obligations being admitted into the undergraduate educational system skewed change from past trends.

2. Student choice motives for BACMA

A binomial logistic regression performed to ascertain the effects of dichotomous variables i.e. previous training in cooperatives, current employment requirements, potential earnings improvement, career development, expansion of professional knowledge and skills, role of influential people, university reputation and nature of study environment on the participants' selection status of BACMA (0-None priority, 1-Priority). The analysis was performed using SPSS version 25.

Using enter method, the model with predictors was better than the model with the intercept only, $\chi^2(8) = 32.529, p = .000$. Moreover, the model explained 25% (Nagelkerke R^2) of the total variance in BACMA selection, as well as making 69% correct classification of non-priority and priority choices.

Table 1: Binary logistic regression coefficients for choice motive

IVs	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							L	U
X ₁	0.46	0.19	5.75	1	0.017	1.58	1.09	2.31
X ₂	-0.97	0.66	2.17	1	0.141	0.38	0.10	1.38
X ₃	-0.58	0.41	1.99	1	0.158	0.56	0.25	1.25
X ₄	-0.09	0.40	0.06	1	0.815	0.91	0.42	2.00
X ₅	-0.81	0.37	4.81	1	0.028	0.44	0.21	0.92
X ₆	1.14	0.57	4.04	1	0.045	3.14	1.03	9.58
X ₇	-1.18	0.39	9.09	1	0.003	0.31	0.14	0.66
X ₈	0.50	0.54	0.84	1	0.360	1.64	0.57	4.75
C	2.64	1.86	2.01	1	0.156	14.06		

Key: X₁=Number of previous years in cooperative training, X₂ = Current employment requirement, X₃= Potential for earning improvement, X₄= Seeking career development, X₅= Expanding professional knowledge and skills, X₆=Influential people, X₇= University reputation, X₈= Learning environment, C=Constant, IVs= Independent Variables; L=Lower, U=Upper

Table 1 presents logistic regression coefficients, the Wald tests, odds ratios and the confidence intervals. Four (4) out of eight (8) predictors, namely, previous cooperative training, need to expand professional knowledge and skills, role of influential people, and university reputation, significantly predicted the choice of BACMA as the preferred degree of study. Effect of number of years in cooperative training preceding the BACMA degree was positive and statistically significant, $\chi^2(1) = 5.747, p = .017$. This implies that a year's increase in previous training in cooperative related subjects increased the odds of picking BACMA as a priority rather than non-priority degree of study by 58.4%. The effect of university reputation was also significant though in the opposite direction, $\chi^2(1) = 9.09, p = .003$. The inverted odds for choosing BACMA as a priority rather than non-priority course was 3.26 times smaller for a student considering University reputation good as opposed to those considering it poor. The influence of people such as parents, classmates and university staff revealed a significant impact on the choice of BACMA as their degree of study. The odds of selecting BACMA given students admitted the influence of key people increased by a multiplicative factor of 3.139. Finally, the odds ratio, 0.443, of a need to expand professional knowledge and skills (1-yes to 0-no), revealed that the odds of choosing BACMA were nearly cut in half. To make easier interpretation, the inverted odds ratio reveals that there was more than doubling of odds for not picking BACMA as a favorite major.

3. Motives for majoring cooperative at the next level of study

Participants in the study were asked whether or not they

would want to continue studying cooperative related subjects after having graduated with BACMA. To find out what factors best explained students' desire to pursue cooperative courses, a binomial logistic regression with interest to study (*1-Major cooperative, 0-Major other fields*) as an outcome variable and nine independent variables was performed. The model with predictors was better than the model with intercept only, $X^2(9) = 20.314, p = .016$. In addition, predictors explained between 17% (*Cox and Snell R*) and 22% (*Nagelkerke R*) variance of the decision to pick up cooperative as field of study in the next level of study. Also, the model correctly classified 67.3% of all choice categories. For more details regarding each individual factor contribution to the choice to continue with cooperative, see Table 2.

Table 2: Determinants for selection of cooperative field in the next level of study

IVS	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
X ₁	0.06	0.07	0.7	1	0.411	1.1	0.9	1.2
X ₂			5.2	2	0.074			
X _{2,1}	1.23	0.59	4.4	1	0.036	3.4	1.1	10.7
X _{2,2}	0.16	0.51	0.1	1	0.76	1.2	0.4	3.2
X ₃	0.38	0.62	0.4	1	0.537	1.5	0.4	4.9
X ₄	0.56	0.46	1.5	1	0.219	1.7	0.7	4.3
X ₅	-0.91	0.45	4	1	0.044	0.4	0.2	1
X ₆	0.82	0.46	3.1	1	0.078	2.3	0.9	5.6
X ₇	-0.5	0.56	0.8	1	0.364	0.6	0.2	1.8
X ₈	-0.43	0.46	0.9	1	0.352	0.7	0.3	1.6
C	-1.46	1.89	0.6	1	0.442	0.2		

KEY:

X₁=Age; X₂=Year of study; X_{2,1} = First year (1); X_{2,2} =Second year (2); X₃= Current employment requirement(1); X₄= Seeking career development(1); X₅= Passion for cooperatives (1); X₆= Coops excel better in labor market(1); X₇=Respectful(1); X₈=Highly paid(1); C=Constant; IVs= Independent variables

A year of study in which a student belonged to as a whole did not reveal any significant impact to the selection of cooperative major, but a statistically significant difference was observed between first year and finalist students, $X^2(1) = 4.387, p = .036$. First year students compared to the finalists were three times more likely to specialize in cooperative related courses in the next level of study, having graduated with BACMA. Furthermore, looking to the future, the passion for cooperatives made a significant impact on the decision to pursue cooperative studies, $X^2(1) = 4.048, p = .044$. The odds of pursuing cooperative, if current students had passion for cooperatives was only 0.403. To make this interpretation simpler, the likelihood of majoring in cooperatives, given students were passionate about cooperative fields during their current study period, decreased by nearly 60%. In addition, personal interviews with two

students, Jenipher and Amina revealed a similar perspective that there was low interest in cooperatives in higher levels of study after successful completion of BACMA. They said they wanted to try out something new, having studied cooperatives for more than five years. When asked further whether the current program had any shortcomings leading to their change in mindset, Amina said the knowledge and skills she has gained in cooperatives was enough for her, and she did not see any shortcoming with the program. On the contrary, Jenipher said she was not planning to come back soon for higher studies, and she declined to comment on whether or not she would consider doing a higher degree in cooperative related fields.

V: DISCUSSION OF FINDINGS

The influence of family members and close people such as former school mates, teachers and counselors on what to study remains crucial among students joining first year degree as pointed out in other studies (Rababah, 2016; Owusu-Amoah, 2015). It should be emphasized that as students plan to go to University for the first time, there is not much information available for them on the course they want to study. Even if they have some information, they still need the guidance of parents especially if still rely on them for much of their financial and social support. Furthermore, the influence of teachers and colleagues on what to study is significant because students tend to trust them. The image of a study college as passed on in form of what people say about this university or exerts a significant influence on the choices. This is probably a case that after first being influenced by the good image, then eventually they choose a course that is probably prominent.

Regarding years of study, as revealed in the findings section, a freshman compared to a finalist at university has limited preferences regarding whether or not to specialize in the cooperative field once he has completed his current degree, but as he progresses his mindset regarding what to pursue in the next level changes. The change in mindset may be associated with the challenges they encountered in the course of their studies thus redefining their judgment towards what fits who, when and how, and this is what is observed in this study. For instance, some students having graduated BACMA would want to completely pick a different area of specialization as they try to associate the current degree of study with other variables including possibility to secure lucrative jobs. Like many social science subjects, requirements for pursuing cooperative fields are a bit relaxed so anyone with some background in business and social sciences can be admitted. While one would expect increased cooperative knowledge to associate with increased odds for pursuing cooperative studies, the case is quite different here. It is also evident that the passion students had before and during the study of BACMA, likewise, declines leading to the change of preference for cooperative majors at higher levels.

VI: CONCLUSION

This study was aimed at investigating the factors influencing

the choice for cooperative subjects among first undergraduate students and their interest in enrolling for similar field in the next level of study. The study revealed several factors that significantly impacted the decision to pick BA-CMA as a first degree of study at MoCU. These factors ranged from those defining the university (institution reputation and study environment) to field related (previous training in cooperative field, and need to gain professional knowledge and skills). Whether or not a current student would be interested in pursuing a cooperative subject in the subsequent levels was statistically defined by year of study and the passion for cooperative. This study outlines several recommendations as follows. Firstly, higher learning institutions focusing on attracting more students in the cooperative field must capitalize on student-centered approaches when designing programs, devising recruitment strategies and deciding on what marketing orientations to apply. Secondly, the University has to build a large pool of students at lower levels including, diploma, and of course bachelor degree for these are the ones who are likely to pursue co-operative majors in higher levels.

Notwithstanding the great contribution towards understanding students' choice motives this study has given, it should be noted, it was limited scope. It only focused on the choice criteria ignoring other factors that may be related to dissatisfaction with cooperative courses including marketing strategies, the general change in admission systems, the learning and teaching environment. This will not only help the university to recruit large numbers of students but also add up to the cooperative labor force. Thus complementing a wider strategy for promotion of efficient and effective cooperative enterprises capable of challenging strong business competition.

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