THE RELATIONSHIP BETWEEN SOCIAL SUPPORT, SOCIAL ADJUSTMENT, ACADEMIC ADJUSTMENT, AND ACADEMIC PERFORMANCE AMONG COLLEGE STUDENTS IN TANZANIA

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A THESIS SUBMITTED IN FULFILLMENT FOR THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY OF THE OPEN UNIVERSITY OF TANZANIA

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CERTIFICATION

The undersigned certify that they have read and hereby recommend for acceptance by the Open University of Tanzania, a thesis entitled: "The Relationship between Social Support, Social Adjustment, Academic Adjustment, and Academic Performance Among College Students in Tanzania" in fulfillment of the requirements for the award of the Doctor of Philosophy Degree of the Open University of Tanzania.

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Date

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DECLARATION

I, Faustine T. China, do declare that this thesis is my original work, and it has not been submitted for a similar degree in any other University.

…….....……..

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Date

DEDICATION

I sincerely dedicate this work to:

The Almighty God – You are always there to hold my hands;

My beloved wife, Brigita Magoha: She truly loves me unconditionally;

My mother, Frolida Muhate Sagini, who missed part of my financial support during my studies; She endured all the difficulties; and

The memory of my late father, Edward China Tegile, one of my greatest teachers. Wish you were here to share your wisdom and joy with me.

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Finally, I wish to declare that I am responsible for any shortcomings in this work. Any errors that may appear are my sole responsibility.

ABSTRACT

The purpose of this study was to investigate the relationship between social support, social adjustment, academic adjustment and academic performance among college students in Tanzania. The sample of this study comprised 405 students, and 12 staff from the College of Business Education and the Institute of Finance Management in Dar es Salaam. Correlational research design was used to determine the relationships among variables. The study had five objectives, and inferential statistics techniques were applied to determine the relationships among the study variables. The findings of the study showed that social support and academic performance of college students were not significantly related to each other. However, the study revealed that there was a positive and significant relationship between social adjustment and academic performance among college students ($r = .431$, $p < .01$). The findings also showed that academic performance was significantly related to academic adjustment of college students ($r = .604$, $p < .01$), suggesting that students who fit well in the academic environment were likely to excel in academic work as well. Similarly, the study found that social support and social adjustment of college students were positively and significantly related ($r = .481$, $p < .01$). The study, among other things, recommended that institutions of higher learning should assist students in identifying and addressing potential barriers to social and academic adjustment programs for students. Among other areas for future investigation, the study suggests to examine variables affecting social and academic adjustment among college students in Tanzania.

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CHAPTER ONE

1.0 BACKGROUND AND STATEMENT OF THE PROBLEM

1.1 Introduction to the Chapter

This study intended to examine the relationship between the social support available to college students, their social and academic adjustment experiences, and how these constructs were related to their academic performance. This chapter is about the background and statement of the research problem. It is divided into eight sections. The first section discusses the predictive factors of college students' academic performance. The second section dwells on the social and academic adjustment of college students. The moderating impact of social support to college students' academic endeavors is covered in the third section. The fourth section deals with the college students in Tanzanian context. The statement of the research problem of this study is presented in section five. The subsequent sections cover: the objectives of the study; research hypotheses; significance of the study; conceptual framework of the study; and chapter summary.

1.2 Predictive Factors of College Students' Academic Performance

Education plays a vital role in development of human capital and is linked to an individual's well-being and opportunities for better living. It ensures the acquisition of knowledge and skills that enable individuals to increase their productivity and improve their quality of life (Battle and Lewis, 2002). Education is also viewed as an important investment in human capital for improving the quality of life and poverty reduction (URT, 2010). With college education, the benefits are far-reaching. According to UNESCO (1991), individuals who attend college obtain a

wide range of personal, financial, and other long-life benefits. Individuals with college education tend to have skills that can be easily applied in different work settings, as well as in different geographical locations. Omari (1991) remarked that higher education is the forefront of the modernization process, and that a higher learning institution "occupies a strategically important position in society as it directly influences the personal lives, and the development, of the best successive future generations, preparing them for a wide range of vocations, in virtually all positions of leadership and technical competence in the society including government, business and professions" (p. 14).

Colleges and universities all over the world continue to invest in attracting more students to their campuses, and provide opportunities for professional as well as intellectual development. For students, successful completion of the college provides affirmation that they have achieved an important educational goal that has significant implications for their future. According to Emme (1942), student success is equally important for institutions of higher learning they attend because it serves as feedback on relevance and effectiveness of their educational programs and related support services.

However, as they join these institutions and endeavor to fit in, students face many challenges and that success in academic performance is not always guaranteed. There is evidence that college students report experiencing an increase in frequency of difficulties related to academic work, social competence and emotional adjustment (Vollrath, 1988). To successfully accomplish educational goals, college students must adjust to the new college environment, with different sets of social and

academic settings, than previously experienced in secondary schools. Success in college is dependent upon quick adjustment, and students often report feeling stress due to large changes and conflicts associated with the adjustment to college (Rayle and Chung, 2008).

A study by Wilson (1984) that explored adjustment problems at the University of Zambia identified the following problems: difficulty of obtaining books; academic workload; poor matching of students to compulsory courses; and difficulties with techniques of learning and studying at the university. Toews and Yazedjian (2007) observed that a higher proportion of students who withdrew from colleges was often due to personal reasons, including adjustment difficulties to college. Likewise, Cutrona (1982) noted that adjustment difficulties to college led to depression, and other emotional maladies that precipitated students' drop out. In the United States of America, for example, depression is a growing problem across college campuses (American College Health Association, 2003).

The American College Health Association (2011) reported that in the year 2011, 86.3 percent of college students were depressed within the past 12 months, and that 31.1 percent of these students could not even function well in the academic domain. Similarly, Furr *et al*. (2001) found that more than 50 percent of college students report experiencing significant depression problems. Depressive effects among college population has been linked to poor academic outcomes, increased rates of school dropout (DeBerard *et al*., 2004; Hartley, 2010), and increased patterns in suicidal ideation (Wilcox *et al*., 2010). Suicide is an outcome strongly associated with depressive symptoms, and is the second leading cause of death in college

students (Wilcox *et al*., 2010).

Determinants of students' academic performance in colleges and universities have preoccupied psychological as well as educational research for several decades (Robbins *et al*., 2004). For many years, standardized tests and students' prior academic achievement such as high school grade point average were central in predicting students' academic performance in colleges (Wesley, 1994; Ting and Robinson, 1998). Larose and Roy (1991), for example, using a sample of 1,235 students reported that high school GPA was the most effective predictor of college academic performance. This view is also shared by Emme (1942) and Wentzel (1998) who observed that college success, as measured by grade point average (GPA), was positively correlated with high school grades.

Despite the long held notion that students' cognitive ability predicts college academic performance, research has forced a shift from this perspective to include other psychosocial predictors of academic performance among college students. This view is agreed among many scholars and it is now clear that high school academic achievement does not necessarily predict better educational outcomes at college level (Petersen *et al*., 2009). Bono (2011) noted that college students' academic success depended on students' personalities, overall happiness and satisfaction with their lives, the quality of their social network, and their inherent ability to learn. Pascarella and Terenzin (2005) reported a number of variables that affect academic performance among college students. They included: college entry qualifications, academic skills, personal/psychological characteristics, and institutional efforts to provide support to students (*ibid*). Table 1.1 summarizes variables that predict

college academic performance.

Table 1.1: Variables that Predict College Academic Performance

S/N	Predictive variables	Sources
1.	Demographic characteristics	
	Socioeconomic status	Astin (1982); US Department of Education (2003); Rouse and Barrow (2006); Eamon (2005)
	Parental level of education	Astin (1982); Chen (2005); Brooks-Terry (1988)
	Gender	Astin (1993); Kazar and Moriarty (2000)
	Age	Astin (1993)
	Race	Astin (1993)
2.	Social support	Hobfoll and Stephens (1990); Wilcox *et al*. (2005); Vaux (1990)
3.	Social and academic adjustment	Pascarella and Terenzini (2005); Hrabowski and Maton (1995); Baker and Siryk (1984)
4.	Students' approach to learning and learning styles	Cano (1999); Richardson eta al. (2012); Omari (2013); Guild and Garger (1985)
5.	Personality and student's personal attributes	Reeve (2002); Brown *et al* . (1989); Noftle and Robins (2007); Arrison (1988)
6.	Motivational factors	Deci and Ryan (2000); Lepper *et al*. (2005)
7.	Institutional factors	Williams (1989); Chavous (2005); Wang (2009); Dezmon (1995)
8.	Students' prior achievements and Standardized Test Scores	Wesley (1994); Bauer and Liang (2003); Pentages and Creedon (1978); Duff (2005)

1.3 Social and Academic Adjustment of College Students

College students face several challenges, including developing a new social network, keeping up with academic work in an environment of much greater autonomy, and negotiating the temptations of a college environment (Chong *et al*., 2009). Fischer (2009) argued that academic and social conditions in colleges induced anxiety, a sense of incapability and feelings of inferiority for many students. Thus, to successfully accomplish educational goals, college students must adjust to the college setting, both socially and academically. Baker and Siryk (1989) defined social adjustment as the negotiation of interpersonal relationships between

roommates, peers, faculty, and other members of a student's immediate environment together with surrounding community.

Bettencourt *et al*. (1999) asserted that students who do not fit with the college environment lack integration with campus life, and they are prone to loneliness, depression, and stress. The quality of relationships a student has affects overall college educational outcomes. According to Baker and Siryk (1989), academic adjustment refers to motivation for learning, taking actions in order to comply with academic demands, sense of purposefulness and general satisfaction with the academic environment. Russell and Petrie (1992) cited a number of factors that need to be taken into account when one wants to get a complete picture of student's academic adjustment. They included: aptitude, ability, study skills, test anxiety, academic motivation, self-efficacy, and attribution (*ibid*).

Adjustment is an important aspect to determine college students' academic performance (Russell and Petrie, 1992; Baker and Siryk, 1989; Edward, 2003; Bettencourt *et al*., 1999; Petersen *et al*., 2009). Students who fail to cope in the college environment are prone to psychological distress, including anxiety, low academic self-efficacy, and poor time management (Martha, 2003). According to Feldinald and Feldinal (2006), adjustment is the continuous process of satisfying one's desire, mastery of the environment and sense of being at peace with oneself. Thus, it implies that adjustment is the ability to select appropriate and effective measures so as to meet demands of the environment while maintaining a healthy attitude towards the circumstance.

Spincer and Jeffrey (1995) reported that students who fail to adjust face a torrid time, and may commit suicide, which is reportedly the second leading cause of deaths in Western colleges and universities. Tinto (1993) pointed out that students' persistence and later educational outcomes requires individuals to adjust both socially and intellectually such that: "The period of adjustment to new situations is often painful and sometimes so difficult as to cause young people, and sometimes older students, temporarily to give up on even strongly held goals. For some, it is a question of learning how to apply previously acquired intellectual skills to new situations" (p.47). Schlossberg (1981) as well as Terenzin *et al*. (1994) observed that the type and degree of adjustment depended on the background and experience of the individual student.

Petersen *et al.* (2009) asserted that adjustment to college environment is an important factor in predicting college outcomes. Similarly, Edward (2003) noted that students' inability to adjust to environmental changes, their inappropriate course choices, personal issues, and financial constraints were among major causes of withdrawal from studies. College students are expected to make a series of adjustments to cope with their new ways of life. Students will have to adjust in several domains, including academic sphere, personal emotional, and social. A student's adjustment to college and subsequent educational outcomes seems to be related to a combination of social, academic, environmental, personal and family factors.

Tinto (1975) asserted that college students' academic performance may be determined by organizational features of learning institutions and the interaction between individual learners and their learning context. In his Student Integration

Model (1975), Tinto highlighted the role of institutional characteristics in shaping students learning and reducing student dropout. The Student Integration Model theorized that, college systems interact with student characteristics (e.g., sex, ethnicity, values) and experiences (e.g., past achievement) to determine students' degree of interaction with social environment and academic systems. Optimal adjustment results in stronger social, academic, and institutional integration which supports students' persistence, and academic performance.

1.4 Moderating Impact of Social Support to College Students' Work

Social support is an important protective factor against various negative outcomes, particularly for undergraduate students struggling to get adjusted to college (Friedlander *et al*., 2007; Tao *et al*., 2000; Zimet *et al*., 1988). Lin (1986) defined social support as the perceived or actual instrumental and/or expressive provisions supplied by the community, social networks, and confiding partners. Social support is a complex construct, and it includes social resources that individuals perceive to be available, or those actually offered to them by others (Cronkite and Moos, 1995). Lazarus and Folkman (1984) defined social support as a supportive situational or environmental condition that reduces the chance that an individual will appraise an event as stressful.

Dusselier *et al*. (2005) asserted that social support helps individuals to reduce the amount of stress experienced, giving one the ability to cope and deal with stressful situations. Social support has always been found to promote psychological well-being, as well as to buffer negative effects of a stressful situation (Brissette *et al*., 2002). Adequate provision of social support has been associated with lower levels of

depression, fewer episodes of negative life events, and other psychological disorders (Sarason *et al*., 1987; Ford and Procidano, 1990). Cohen and Wills (1985) noted that one's perceptions of supportiveness of social network members and resources are positively related to various indices of psychological well-being and negatively related to various measures of psychological distress and psychopathology.

College students' perceptions of social support have been positively linked to health-promoting behaviors, such as good nutrition, exercise, and avoidance of substance abuse (Martinelli, 1999). DeSantis King *et al*. (2006) reported that social support has been shown to relate positively to students satisfaction with their schooling experience. On the other hand, Malecki and Demaray (2003) observed that social support from several sources (for example, parent/family, peers/classmates, and teachers) is associated with beneficial outcomes for students. Thus, timely and adequate provision of social support to students can help them manage challenges and psychological problems in the college setting (Wentzel, 1998). Calvete and Connor-Smith (2006) reported that support from family and friends was found to reduce the impact of psychological problems among students. Villanova and Bownas (1984) found that social support could help students to cope with every day life stressors and reduce the burden of academic work.

In another study by Okun, Sandler and Baumann (1988), it was reported that students' psychological and physical health were positively related to social support from peers and family. The study further revealed that students who were socially unsupported encountered negative life experiences, and perceived a lower academic life quality than students who were socially supported (*ibid*). Moreover, Trockel *et*

al. (2000) found that the amount of social support from the family, friends, and mentors, from both within and outside the college, can make a tremendous impact on a student's later educational success.

1.5 College Students in the Tanzanian Context

Higher education in Tanzania has experienced rapid expansion and increased enrollments in the last two decades. Through a cost-sharing framework, in the early 1990s, the Government of Tanzania liberalized the provision of higher education in Tanzania. In an attempt to expand access to and improve the equity of higher education, The Education Act No.10 of 1995 replaced the Education Act No.25 of 1978 (URT, 1998). Likewise, the 1999 National Higher Education Policy also encouraged private organizations, individuals, non-governmental organizations and communities to establish higher education institutions as one of the strategies to expand access to higher education by many Tanzanians. This led to the mushrooming of universities and colleges across the country. By December, 2006 there were more than 20 institutions of higher learning in Tanzania. The total number of students enrolled in universities and university colleges rose from 37,667 in 2004/05 to 95,525 in 2008/09, which was an increase of 153 percent (URT, 2010). To date, there are 69 higher education institutions in Tanzania (Tanzania Commission for Universities, 2014).

Such an increased enrollment in higher learning institutions pose new challenges, particularly when it comes to provision of quality and timely students' support services. Ishengoma (2007) observed that there was cause for concern regarding the quality and equity of higher education in Tanzania. Provision of higher education

pertains to more than intellectual developments. Brubucher and Rudy (1997:333) noted that "the college must assume responsibility for the students' total personality development – physical, social, and emotional as well as intellectual. It should recognize that what happened outside the classroom – living conditions, study habits, emotional problems – might vitally influence classroom performance".

College environments play an important role in the development and success of college students. According to Tinto (1975), the college microsystem includes the process variables of relatedness to on-campus friends, relatedness to instructors, and belonging on campus as well as the student's participation in extracurricular activities. All these variables have been linked to successful social adjustment, persistence, and better educational outcomes. Tinto (2006) reported that college students are more likely to persist and graduate in settings that foster learning; provide clear and consistent information; advise students effectively about choices; provide academic, social, and personal support; and provide them with favorable contact with faculty.

On the basis of the Urie Bronfenbrenner's (1979) ecological theory, it is equally important to include all aspects of the person and the environment in predicting college students' academic outcomes. Figure 1.1 depicts five environmental systems with which an individual interacts within communities and the wider society. Bronfenbrenner (1979) theorized that the person's development and growth is result of interactions between characteristics of the person and the environment.

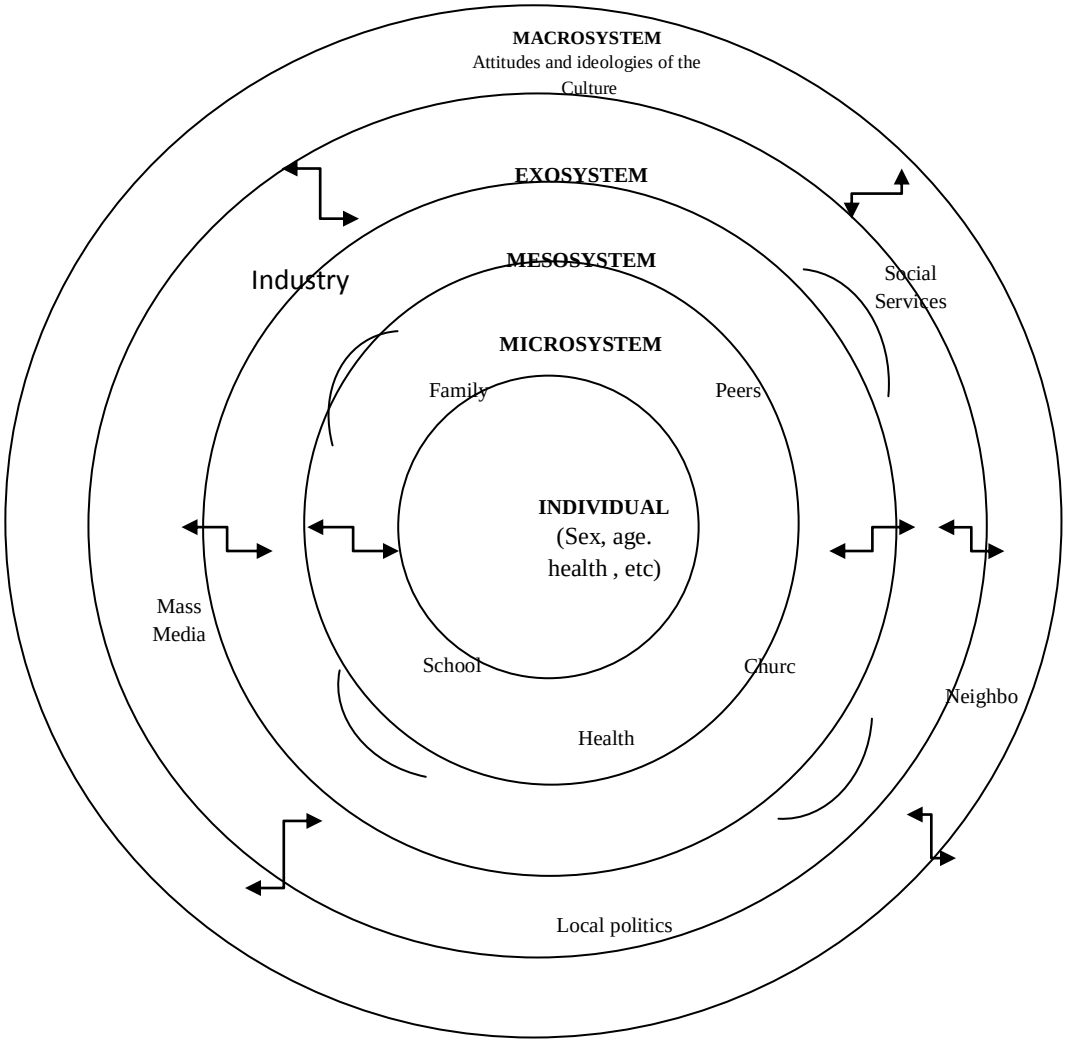

Figure 1.1: Bronfenbrenner's Ecological Systems Theory
Source: Adopted from Bronfenbrenner (1979)

The basic tenet of the ecological theory is that the way people perceive their environments and experiences significantly affects their well-being. The meaning that people place on life experiences and the way they interpret day to day events in the context of their environments have a major impact on their well-being (*ibid*). Thus, the ecological theory attaches great importance to focuses on the multiple contexts that influence college student development and subsequent educational outcomes. This view was also shared by Muuss (1996) who observed that students'

academic success is a function of both personal traits such as mental ability, motivation and academic skills, and the characteristics of the surrounding environment. Personal traits and the surrounding environment can be conceptualized as a system, with interdependent structures that constantly interact. Tinto (1993) identified the following three major causes of students' failures and subsequent drop out: academic difficulties; the inability to set their educational and occupational goals; and students' failures to become or remain integrated into the intellectual as well as social life of their campuses.

Most colleges in Tanzania have instituted programs to assist students cope with college environment. Informational orientation programs for new students, provision of counseling facilities, availability of loans officers to cater for students' loans or financial aid, and provisions of accommodation facilities at affordable prices, are some strategies meant to assist students adjust to college environment. Despite the establishment of programs by institutions to assist students cope with college environment, there are notable challenges that hamper smooth students' adjustment and subsequent educational outcomes.

Omari (1990, cited by Omari and Mihyo, 1991) noted the deterioration of student support services at the University of Dar es Salaam, citing, among others: poor counseling services, lack of recreational facilities, and poor facilities in halls of residence. Similarly, Omari and Mihyo (1991) analyzed three distinct commissions appointed to inquire into students' unrest at the University of Dar es Salaam, the University of Zambia, and the University of Zimbabwe. The authors (*ibid*) found that students' concerns regarding sanitation, security, residential comfort, and

recreational facilities were given little consideration and appreciation by university staff.

SARUA (2009) investigated the availability of students' support services in 7 universities in Tanzania. The students' support services included in the study were: academic orientation services, academic advising/support services, career guidance services, psychological counseling services, sports facilities, social and cultural activities (bars, theatres, music), medical facilities, and accommodation facilities. The study revealed that academic advising/support services were either not available or partially provided. Career guidance and psychological counseling services, in most cases, were provided by unqualified personnel.

Through its Higher Education Development Program (HEDP 2010-2015), the Government of Tanzania noted the following challenges in provision of higher education in Tanzania: overcrowding, delays in issuing of students' loans, poor students' mentorship and career guidance, inadequate teaching and learning facilities, under qualified staff, inadequate books and other relevant facilities (URT, 2010). All these challenges affect the learning environment, and impinge negatively on college students' later educational outcomes. Boyer (1987) insisted that "the effectiveness of the undergraduate experience relates to the quality of campus life" (p.191). Similarly, Wang (2009) noted that social support services and overall campus climate plays an important function in students' ability to attain good educational outcomes. This view was also shared by Bracken (2012) who reported that students in an educational environment with few stressors have ample time to engage in and focus on education, as opposed to devote their energy on navigating a

threatening and complex college environment in order to succeed.

1.6 Statement of the Research Problem

College students face a number of challenges, including developing social support network, keeping up with different educational demands, and manage interpersonal and societal demands which are part of college experience. The process of adjustment to the college environment can be frustrating and overwhelming for many students, leading to emotional maladjustment, depression, and poor academic outcomes (Wintre and Yaffe, 2000).

The system of higher education in Tanzania is rapidly expanding, amid numerous challenges. Multiple and complex problems facing college students, with their adverse effects on educational outcomes, are not getting scholarly attention. Several reported incidents regarding college students leave some concern to study social support, adjustment problems among college students and their effects on academic performance. On 14th January, 2013, for example, students of the Institute of Finance Management marched to the Ministry of Home Affairs protesting a wave of crimes at hostels/privately rented houses in Kigamboni area, Dar es Salaam. Students complained of rampant raids in which they were constantly robbed of laptops, mobile phones, money, and other valuables (Joint Operation Intelligence and Investigation Report, 2013).

Little is known about college students' social support provision, their college adjustment with implications on their academic performance. To that end, this study intended to investigate social support available to college students (within and

outside their campuses), social and academic adjustment experiences, and how these constructs were related to their academic performance.

1.7 The Objectives of the Study

The main objective of this study was to investigate the relationships between social support, social adjustment, academic adjustment and academic performance among college students in Tanzania. The study focused on the attainment of the following specific objectives:

a) To find out the relationship between social support and academic performance among college students.

b) To explore the relationship between social adjustment and academic performance among college students.

c) To examine the relationship between academic adjustment and academic performance among college students.

d) To find out whether the availability of social support is positively related to social adjustment of college students.

e) To explore the relationship between social support provisions, academic adjustment, and social adjustment in relation to sex of college students.

1.8 Research Hypotheses

The following hypotheses were used to guide this study:

a) Social support is positively related to academic performance.

b) Social adjustment is positively related to academic performance.

c) There is a positive relationship between academic adjustment and academic performance among college students.

d) The availability of social support is positively related to social adjustment of college students.

e) Social support provision, academic adjustment, and social adjustment are related to sex of college students.

1.9 Conceptual Framework

This study adopted the Stufflebeam's (1971) Context, Input, Process, and Product (CIPP) evaluation model to study relationships between social support, academic adjustment, social adjustment, and academic performance. Stufflebeam's Context, Input, Process, and Product evaluation model is "a comprehensive framework for conducting formative and summative evaluations of projects, personnel, products, organizations, and evaluation systems" (Stufflebeam and Shinkfied, 2007, p.325). The CIPP model originated in the late 1960s. It arose from the observation that traditional approaches to evaluation designs were not ideal for evaluating dynamic social contexts (Stufflebeam, 1971).

The model consists of four clusters of relatable variables, namely: contextual, input, process, and product variables. Contextual variables evaluation assesses needs, problems, assets and opportunities while defining goals and objectives of the program. Input variables evaluation is concerned with the resources necessary for achieving the desired goals identified in the context evaluation. It assesses plans for their feasibility and cost-effectiveness for achieving pre-set objectives. Process variables evaluation affords opportunities to assess periodically the extent to which the project is being carried out appropriately and effectively. It monitors the project's process. Product variables evaluation identifies and assesses project outcomes, both

intended and unintended. It ascertains whether the inputs succeed in causing the outcomes. The purpose of product variable evaluation is to measure, interpret, and judge intervention outcomes by assessing their merit, worth, significance, and probity. The Stufflebeam's Context, Input, Process, and Product model is illustrated in Figure 1.2.

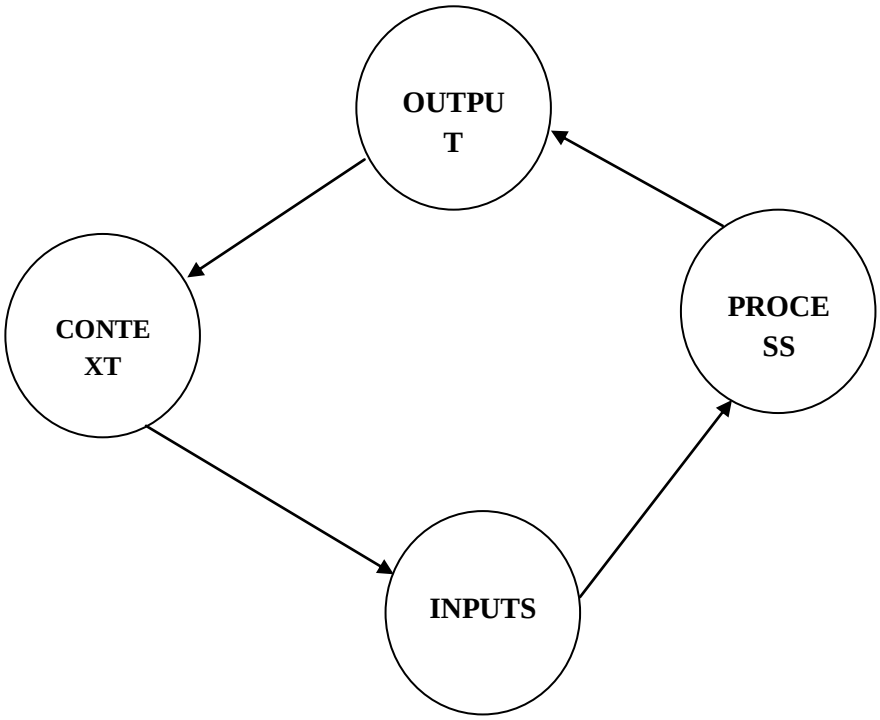

Figure 1.2: Stufflebeam's (1971) CIPP Model

Since the purpose of the study was to investigate factors that lead or predict certain educational outcomes it was deemed appropriate to build upon the Stufflebeam's Context, Input, Process, and Product evaluation model. The model in the current study theorized that academic performance outcome depended on several factors. Mediated by other factors, social and academic adjustment of students, and the extent of social support had direct effect on academic performance. In this model, contextual variables included: urban ecology, cultural setting, education system,

student prior achievements, socioeconomic status, and students' goals and interests. Input variables included social adjustment, academic adjustment, social support from families and friends, time invested by students, and student's efforts in academic activities. College management, age, gender, college norms, faculty interactions, peer interactions, and the overall general environment formed the process or mediating variables of this model. Students' academic performance, which is one of the key interests in this study, was treated as the outcome of the conceptual model. Figure 1.3 provides a visual representation of the model tested in this study.

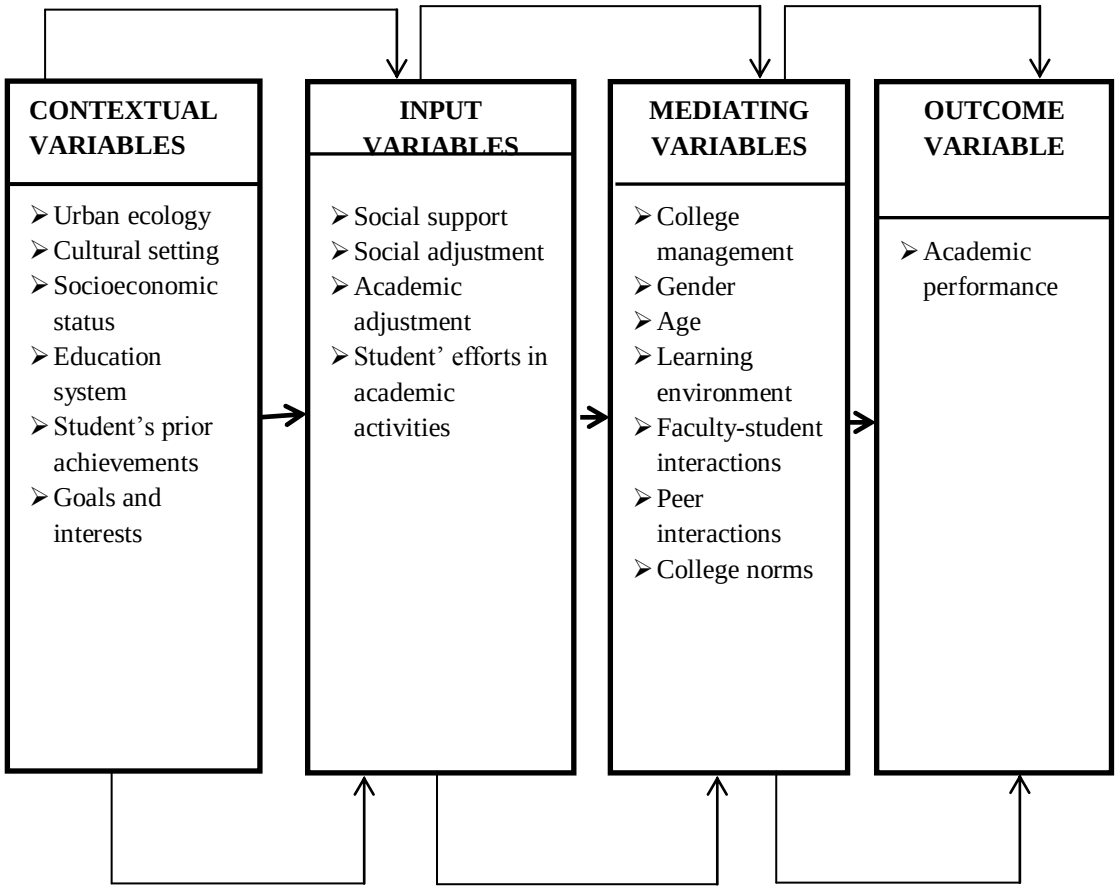

Figure 1.3: Stufflebeam's (1971) CIPP Model

1.10 Chapter Summary

This chapter has dwelt on the background and statement of the problem, with brief explanation on predictive factors of college students' academic performance; social and academic adjustment; and moderating impact of social support to college students. It has also articulated the statement of the research problem, and consequently stating the specific objectives of the study. Finally, this chapter dealt with the research hypotheses, significance, and the conceptual framework for the study. The next chapter presents the literature reviews of this study.

CHAPTER TWO

REVIEW OF LITERATURE

2.1 Introduction to the Chapter

This chapter presents literature related to this study. It reviews studies on adjustment, social support, and academic performance among college students. It is divided into eight sections. The first section discusses the concept of college adjustment, as well as social and academic adjustment. The second section dwells on models of college adjustment. College student socialization is covered in the third section. The fourth section examines the relationship between academic adjustment, social adjustment, and academic performance among college students.

The fifth section deals with the concept of social support, and it has also other subsections that describe social support functions and types; theoretical models of social support; and the relationship between social support and academic performance. The sixth section focuses on academic performance among college students, with focus on models of college academic performance. Predictors of academic performance is covered in section seven. The knowledge gap identified in the review of literature is dealt in section eight, and finally, the chapter summary is presented in section nine.

2.2 The Concept College Adjustment

Adjustment has been defined differently by various scholars. According to Rathus and Nevid (1986), adjustment is a psychological concept that refers to the behavior that permits people to meet demands of the environment. Kim (1995) defined adjustment as a complex and multi-faceted concept that can ultimately lead to

achievement of an appropriate fit between the person and the environment. Arkoff (1968) defined adjustment as a person's interactions with his/her environment and involves reconciliation of personal and environmental demands. According to Arkoff (1968), an adjusted student is one who obtains adequate grades, passes his or her courses, and excel well in many extra-curricular activities.

Coelho *et al*. (1963) asserted that an adjusted person must adapt to physical demands, as well as social and psychological demands that arise from living independently with other people. Similarly, Zea *et al*. (1995) defined successful adjustment to college as "being socially integrated with other students, participating in campus activities, responding to academic requirements, and being attached and committed to the educational institution" (p.511). Torbiorn (1982), on the other hand, defined adjustment as a subjective/psychological state that refers to changes which individuals actively create or passively accept in order to achieve or maintain satisfactory states within themselves. Pascarella and Terenzin, (1991) posited that adjusting to university/college consists of two fundamental complementary processes of de-socialization and socialization. De-socialization entails the changing or discarding selected values, beliefs and traits one brings to college in response to the new experience. Pascarella and Terenzin (1991) further explained socialization as the process of being exposed to and taking on some of the new values, attitudes, beliefs and perspectives to which one is exposed at the college.

The term adjustment is also used interchangeably with the word 'adaptation'. According to Schlossberg (1981), adaptation occurs when an individual is able to integrate transition into his/her life. Schlossberg (1981) defined transition as an event

or non event that occurs, while adjustment or adaptation is reaction to the said event. The author (*ibid*) asserted that adaptation is a positive outcome of transition influenced by three factors: i) characteristics of particular transition, ii) characteristics of pre-and post-transition environment, and iii) characteristics of the individual experiencing transition. These factors interact to produce an outcome: either successful adaptation or failure to adapt (*ibid*).

The concept of adaptation is basically a biological term, and was the corner-stone in Darwin' theory of evolution. Darwin believed that only organisms most fitted to adapt to the hazards of the physical world would survive. Biologists have continued to be concerned with problems of physical adaptation such that many human illnesses are thought to be based on inadequate processes of adaptation to stress of life (Selye, 1956). The biological concept of adaptation has been borrowed by psychologists and renamed adjustment (Lazarus, 1961). Both terms (adjustment and adaptation) were used interchangeably in this study.

Several measures in the 1980s were developed by scholars to determine adjustment levels of college students. The instruments included The College Adjustment Rating Scale (Zitzow, 1984); The College Adjustment Scales (Anton and Reed, 1991); The College Maladjustment Scale of the Minnesota Multiphasic Personality Inventory (Butcher *et al*., 1989); and the Student Adaptation to College Questionnaire (Baker and Siryk, 1989). Of all developed instruments, the Student Adaptation to College Questionnaire (SACQ) appears to be the mostly widely used instrument to measure the adjustment process (Hurtado *et al.*, 1996). The Student Adaptation to College Questionnaire (SACQ) is a psycho-metrically tested instrument used in many

universities and colleges to measure how well students adjust to the college experience (Baker and Siryk, 1989). The Student Adaptation to College Questionnaire has four subscales that measure academic adjustment, social adjustment, personal emotional adjustment, and goal commitment-institutional adjustment.

2.2.1 Social and Academic Adjustment

Students' resilience or withdrawal from college, to a great extent, depends on the degree to which students become academically and socially integrated into a college environment (Baker and Sirky, 1984; Pascarella and Terenzin, 1991; Tinto, 1996). According to Baker and Siryk (1989) academic adjustment refers to motivation for learning, taking actions in order to comply with academic demands, sense of purposefulness and general satisfaction with the academic environment. Zeidner (1992) defined academic adjustment as developing appropriate learning skills, writing and summarizing, thinking and memorizing, coping with masses of reading materials, submitting papers, summarizing lectures, writing seminar papers, effective time management and taking examinations.

Pascarella and Terenzin (1991) asserted that students who are academically adjusted accomplish different educational demands in a timely manner and have better academic performance. Baker *et al.*, (1985) defined social adjustment as the negotiation of interpersonal relationships between roommates/classmates, peers, faculty, and other members of a student's immediate environment and the surrounding community. Social adjustment assesses how one is dealing with interpersonal relationships and social support, the extent and success of social

involvement, including satisfaction with the social environment (Baker and Sirky, 1989). According to Baker and Siryk (1989), social adjustment to a college environment serves as one of the most critical activities students undertake that predicts success in college and beyond. Zeidner (1992) asserted that social adjustment of college students is the ability to establish and manage the interpersonal and societal demands which are part of college experience.

According to Zeidner (1992), societal demands may include participating in campus activities, peer interactions, and adapting to a new social norm. Likewise, Jones (2010) noted that social adjustment can be measured through students' reported satisfaction with (and quality of) informal interactions with staff, faculty, and peers. Several scholars have differently attempted to define academic adjustment and social adjustment. The Higher Education Research Institute (HERI, 2005) operationalized academic adjustment in form of the following aspects: a) understanding what lecturers expect academically b) developing effective study skills c) adjusting to academic demands of the college, and d) not being intimated by lecturers.

Social adjustment is also defined by HERI (2005) as follows: a) managing time effectively b) developing close friendships with other students c) not worried about meeting new people, and d) not feeling isolated from campus life. For purposes of this study the conceptualization of both academic and social adjustment has been adopted to fit within the framework of Baker and Sirk's (1989) definition of college adjustment. Figure 2.1 summarizes definitions of both social adjustment and academic adjustment by various scholars.

2.3 Models of College Adjustment

Historically, the concept of college student adjustment has been grounded in the theoretical premises regarding students' persistence through college. Researchers were interested in understanding about factors related to adjustment of students to college and the relationship between that adjustment, persistence, and educational outcomes. Thus, some models on adjustment are linked to college students' educational outcomes. This section discusses only three models of college student adjustment, namely: The W–Curve Model; Russell and Petrie's (1992) College Adjustment Model; and Tinto's Student Integration Model.

Author	Academic adjustment	Social adjustment
Pascarella and Terenzini (1977)	i) student perceptions of their academic programs. ii) cumulative grade point average.	i) student perceptions of their non-academic lives. ii) number of extra-curricular activities participated in. iii) number of informal contacts with faculty outside of class.
Stage and Richardson (1985)	i)academic integration as academic development. ii) faculty concern. iii) grade point average. iv) credit earned. v) hours spent in academic activity.	i) peer relations ii) informal faculty relations. iii) hours spent in social activity. iv) residence and campus employment.
Halpin (1990)	i)informal relationships with faculty ii) academic and intellectual development. iii) faculty concern for teaching and student development. iv) institutional and goal commitment.	i) peer group relations. ii) informal relationships with faculty.
Flowers (2006)	i)attended study groups outside of the classroom ii) informal or social contacts with faculty outside of class and offices. iii) talked with faculty about academic matters outside of class time. Iv) met with advisor concerning academic plans.	i) went places with friends from college (e.g. concerts, movies, sporting events). ii) attended music, drama, or other fine arts activities. iii) participated in sports. iv) participated in student organizations activities.
HERI (2005)	i) understanding what lecturers expect academically. ii) developing effective study skills. iii) adjusting to the academic demands of the college. iv) not being intimated by lecturers.	i) managing time effectively ii) developing close friendships with other students. iii) not worried about meeting new people. iv) not feeling isolated from campus life.

Figure 2.1: Operationalization of the Concepts of Academic and Social Adjustment

Source: Jean (2010)

2.3.1 The W–Curve Model

Students' transition from high school to college can be very challenging and anxiety-ridden. Some students adjust successfully and move forward in their academic careers, while others succumb to psychological disorders and attrition (Zeller and Moiser, 1993). Several student affairs professionals and scholars have provided numerous theories and conceptual models in describing the adjustment process of college students. The earliest and best known model was the W-Curve propounded by Gullahorn and Gullahorn (1963).

The W-Curve Model was developed to explain the culture shock and emotional challenges confronting students studying abroad. Thirty years later, Zeller and Moiser (1993) modified the W-Curve model to explain the stages of college first year students. With five stages, Zeller and Moiser attempted to explain the emotional difficulties faced by first year students as they struggle to become accustomed to new environment. The five stages are: honeymoon; cultural shock; initial adjustment; mental isolation; and acceptance and integration. Figure 2.2 portrays the W-Curve model, depicting the five stages to explain experiences of first year students struggling to get adjusted to the college environment and the surrounding community.

The honeymoon is the first stage of the W-Curve model. During this stage students arrive at the college, and are enthusiastic to meet new friends in a new setting. In most cases, students experience happiness, sense of freedom, excitement, develop new identity, and explore new interests. Moving away from parents and taking responsibility for one's own life creates positive feelings among many freshmen.

There is a strong sense of welcoming from the college community. Through orientation programs, college staff and faculty members assist students to get acquainted to their new environment.

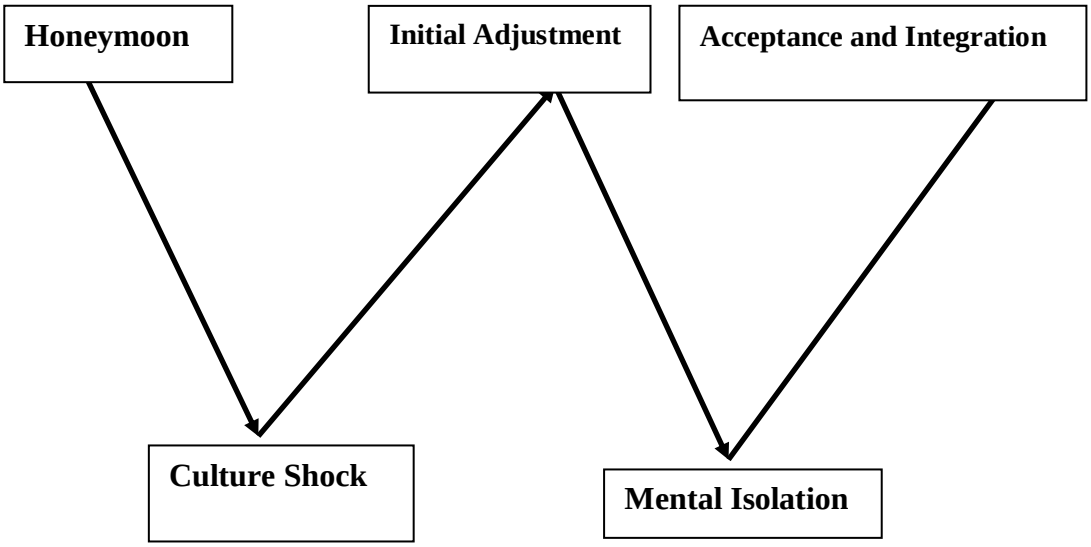

Figure 2.2: The W-Curve Model: Adopted from Gullahorn and Gullahorn (1963)

During the cultural shock stage, students try to develop a routine to adjust to their new environment. Students have difficulty in adjusting in residence halls, managing time for academic work, and engaging in other extracurricular activities at the college. The excitement wears off as students try to find stability and familiarity. Students struggle to balance expectations of faculty, family, and diversity of the campus environment. Their expectations may differ from prior experiences, creating potential adjustment difficulties. Zeller and Moiser (1993) asserted that such period is marked by potential positive change, but it is also a period of more intense personal conflict and anxiety.

The third stage of the W-Curve model is the initial adjustment. In this stage, students have gained confidence in their ability to handle academic and social activities at the campus. Students feel more comfortable, and are making decisions on their own. They actively interact with peers, college staff and faculty, seeking out support and assistance. This stage is also characterized by students' participation in extracurricular activities at the college. Although students may still feel troubled by conflicts and challenges, at that stage they have regained some sense of control.

Mental isolation is the fourth stage of the W-Curve model. Students experience difficulty as they try to comprehend and blend their campus life with their prior experiences. They begin to notice differences and changes in their society, family and friends. Students try to conceptualize their social world, making comparisons of the college culture and their backgrounds. They find themselves caught between two worlds – the new college environment and their homes. According to Zeller and Moiser (1993), it is during this stage that students question about their decision to enroll into college, and career development. Thus, their beliefs and values systems are being challenged, causing threats to students' integration into the college.

Acceptance and integration is the final stage of the W-Curve model. In this stage, students are actively involved in both academic and social aspects of college experience. Students begin to feel connected to the college as they get to know better their peers, staff and faculty members. At this juncture, students have a more balanced and realistic view of the college, depending less on parents. They now refer to campus as home, feeling safe and relaxed. Students appreciate the knowledge, skills and collegiate experiences they have so far amassed. In other words, it is

during this stage that students gain a true sense of acceptance and integration into the college.

The W-Curve model serves as an important tool to understand students' experiences as they join colleges. Zeller and Moiser (1993) noted that negotiating a college culture can be like entering a foreign culture. The dynamic college environment with its existing traditions, organizational structures, and policies together define the intricacies of the college campus. The W-Curve model was very useful to the current study because it gives insightful picture of how college students navigate the college environment to get adjusted, and later on attain desirable educational outcomes.

2.3.2 Russell and Petrie's (1992) College Adjustment Model

Russell and Petrie (1992) developed an adjustment model to explain factors that influence academic process of college students. The model, as shown in Figure 2.3, is divided into three main sections: academic factors, social factors and personality factors. Outcome variables to the three main sections are: academic performance, social adjustment and personal adjustment. The assumption posed by Russell and Petrie (1992) was that one must evaluate students in each of these areas in order to get a complete picture of their strengths and weaknesses.

According to Russell and Petrie (1992), academic factors include: aptitude, ability, study skills, test anxiety, academic motivation, self-efficacy, and attribution. Aptitude and ability variables include high school performance, scores on college admissions tests, and abilities in specific subject matter. Differences in study skills may also affect students' academic outcomes. Certain study skills, for example, may

lead to deeper levels of information processing leading to higher academic performance. The authors borrowed ideas from the work of Bandura (1977) to include self-efficacy as one of the predictors of academic performance. With effort attribution, the authors theorized that an individual may identify and control causes of his/her successes and failures during achievement of tasks. The social factors postulated in the model include: life stress, social support, campus environment, work involvement, family variables, and academic environment.

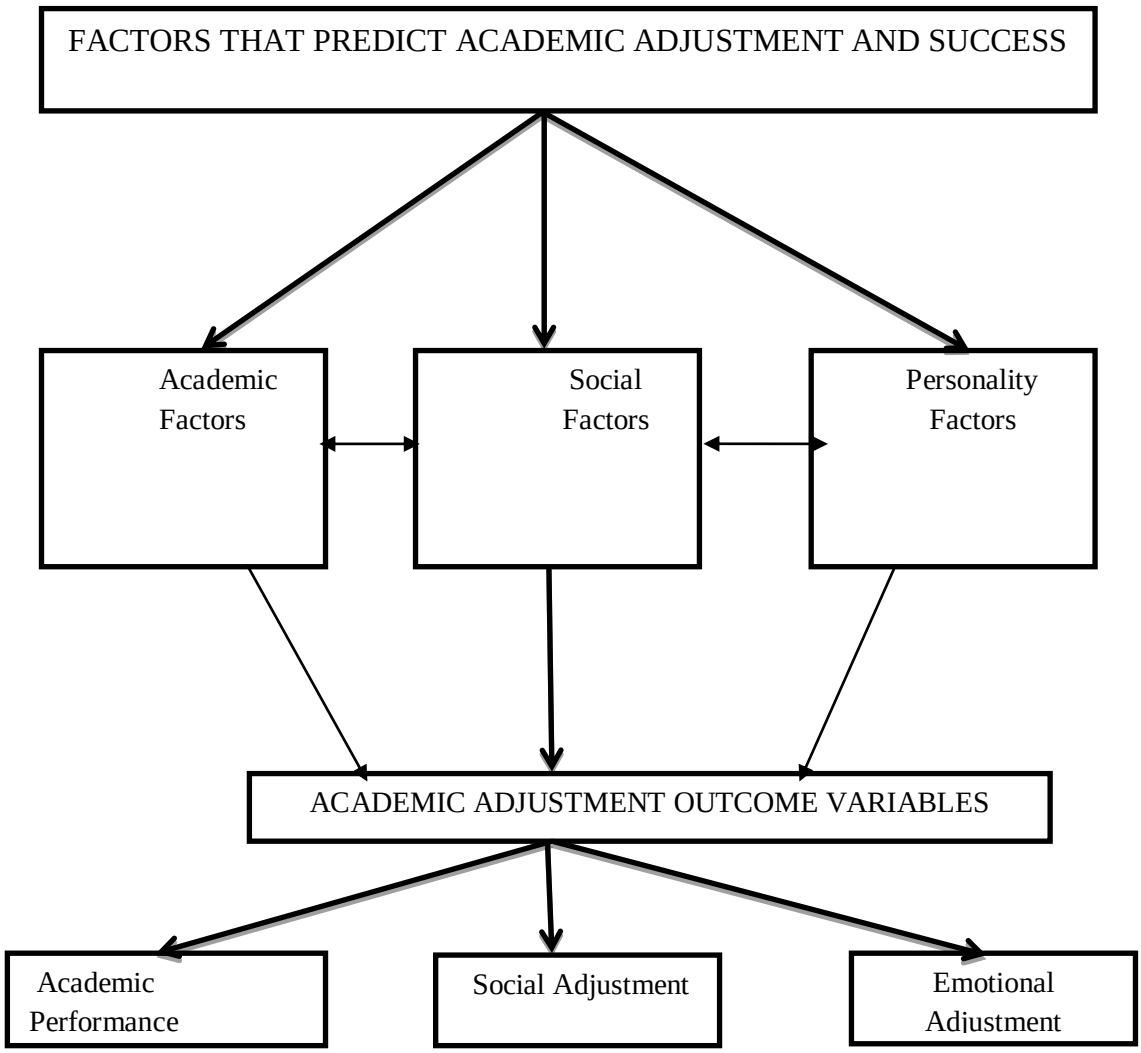

Figure 2.3: Model of College Adjustment

Source: Adopted from Russell and Petrie, (1992)

Authors believed that individuals experiencing negative events in their life are likely to have poor educational outcomes. Social support from family and peers is included in Russell and Petrie's (1992) model. This is based on findings in empirical studies that there is a positive link between social support and academic performance. Rusell and Petrie (1992) identified a wide range of family variables that may on impact students' academic success including socioeconomic factors, family structure, and transition to college. Family income and parents' education level may affect the choice of the college. Campus environment is also included in the model because it may affect the students' educational outcomes. Rusell and Petrie (1992) contend that "students might increase their positive academic experiences by becoming more involved in their campus community and, particularly, by interacting socially with peers and faculty" (p. 493).

With personality factors, Russell and Petrie (1992) included the following variables: locus of control, self-esteem, and trait anxiety. Researchers have found that personality measures are adequate predictors of academic performance. Locus of control, for example, is significantly correlated with positive academic performance. Russell and Petrie's (1992) model has been tested in empirical studies, with mixed results. However, it was insightful to this study because it establishes the vital role of social support and students' adjustment, and their relationship to academic performance.

2.3.3 Tinto's Student Integration Model

Tinto (1975) formulated a theoretical model to explain how contact between students and institutions affect dropout behavior and different processes that occur for

differing forms of behavior. The model, as shown in Figure 2.4, explores the nature of these longitudinal processes and explains the reasons together with characteristics that result in attrition or persistence. Tinto theorized that the more students feel integrated into the institution, both socially and academically, the less likely they are to drop out. When they are admitted, students bring with them individual social and academic background characteristics and experiences, different educational goals, and varying levels of interest in the college.

At the college, students experience the process of adopting norms, values, lifestyles, and behaviors of their new communities. As time passes, they interact with social and academic systems of the college to integrate into the environment. The level of integration determines whether a student persist or decides to withdraw from the college. According to Tinto (1975), integration involves the student 'fitting in' to the social community of the institution. Integration entails establishment of membership in the social and intellectual communities of the college. Tinto argued that students only achieve real integration into their new college community through social and intellectual interactions with other members of the institution. As such, adjustment and integration were used interchangeably in this study.

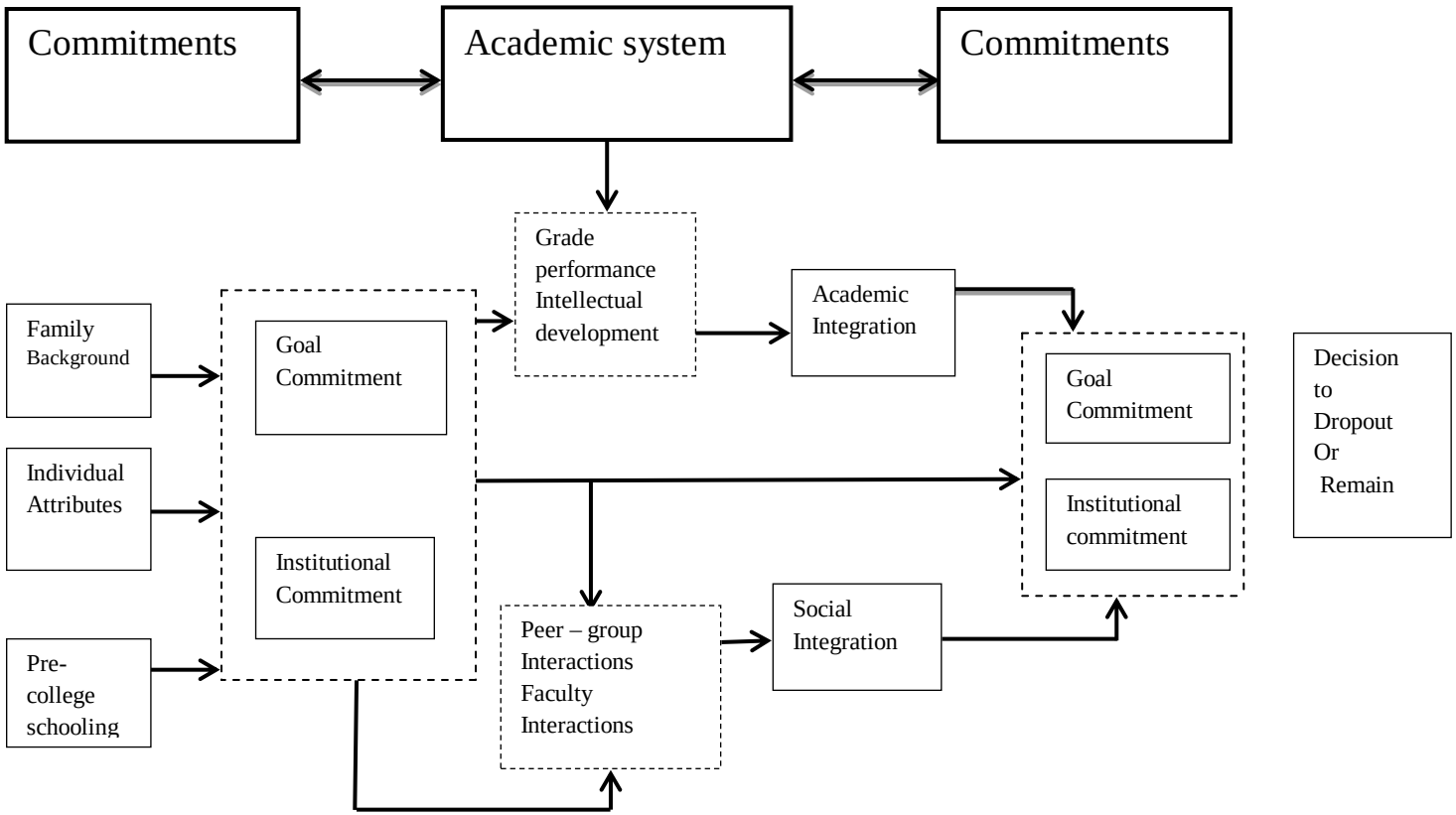

Figure 2.4: Tinto's Student Integration Model

Tinto (1975) outlined two types of academic adjustment, namely: structural academic adjustment and normative academic adjustment. Structural academic adjustment is reflected in the student's academic performance. It is expressed using grade point average to explain the connection between the student's intellectual growth and the intellectual environment of the institution. According to Tinto (1975), normative academic adjustment entails the students' perception of their intellectual development. Although Tinto's Student Integration Model has been tested in empirical studies with mixed results, it gives seminal ideas of how students' integration into the college environment is pivotal for their persistence and predictor of academic success. Moreover, the variables identified as critical to determining integration or attrition have also been cited as predictors of academic success (Baker, 2008).

2.4 College Student Socialization

According to Brim (1966) socialization is "the process by which persons acquire the knowledge, skills, and dispositions that make them more or less effective members of their society" (p. 3). From the societal perspective, Clausen (1968) noted that socialization is aimed at leading an individual to adhere to norms of the larger society or of the particular group into which one is being incorporated. College student socialization is a complex, and interactive process influenced by a number of factors. It is a process through which students come to understand, adjust to and acquire values, norms, knowledge and skills that are crucial for proper functioning within a college setting (Tinto, 1986; Weidman, 1987). Socialization is the process through which an individual learns to adopt values, skills, attitudes, norms, and

knowledge needed for membership in a given society, group, or organization (Tierney, 1997).

2.4.1 Weidman's Conceptual Model of Undergraduate Socialization

Several models have been propounded to explain the process of college student socialization. One of the prominent models is Weidman's (1989) conceptual model of undergraduate socialization. According to Weidman (1989), college student socialization can be looked from both the individual and societal perspectives. From the individual perspective, socialization involves learning; whereas the societal perspective looks at socialization as a way an individual conform to a society or group. As shown in Figure 2.5, Weidman's model is primarily concerned with non-cognitive socialization outcomes. These are: career choices, life style, preferences, aspirations, and values.

Student background characteristics, family socioeconomic status, career preferences, academic aptitude or ability, and aspirations in studies are included because they are central factors in college student's experiences. The model includes parental socialization because parental influences and pressures are likely to persist throughout and may significantly impact on the students' college experiences. Parental influences and pressures to a large extent shape students' pre-college experiences, institution choice, and career choices (Tinto, 1988; Tierney, 1992).

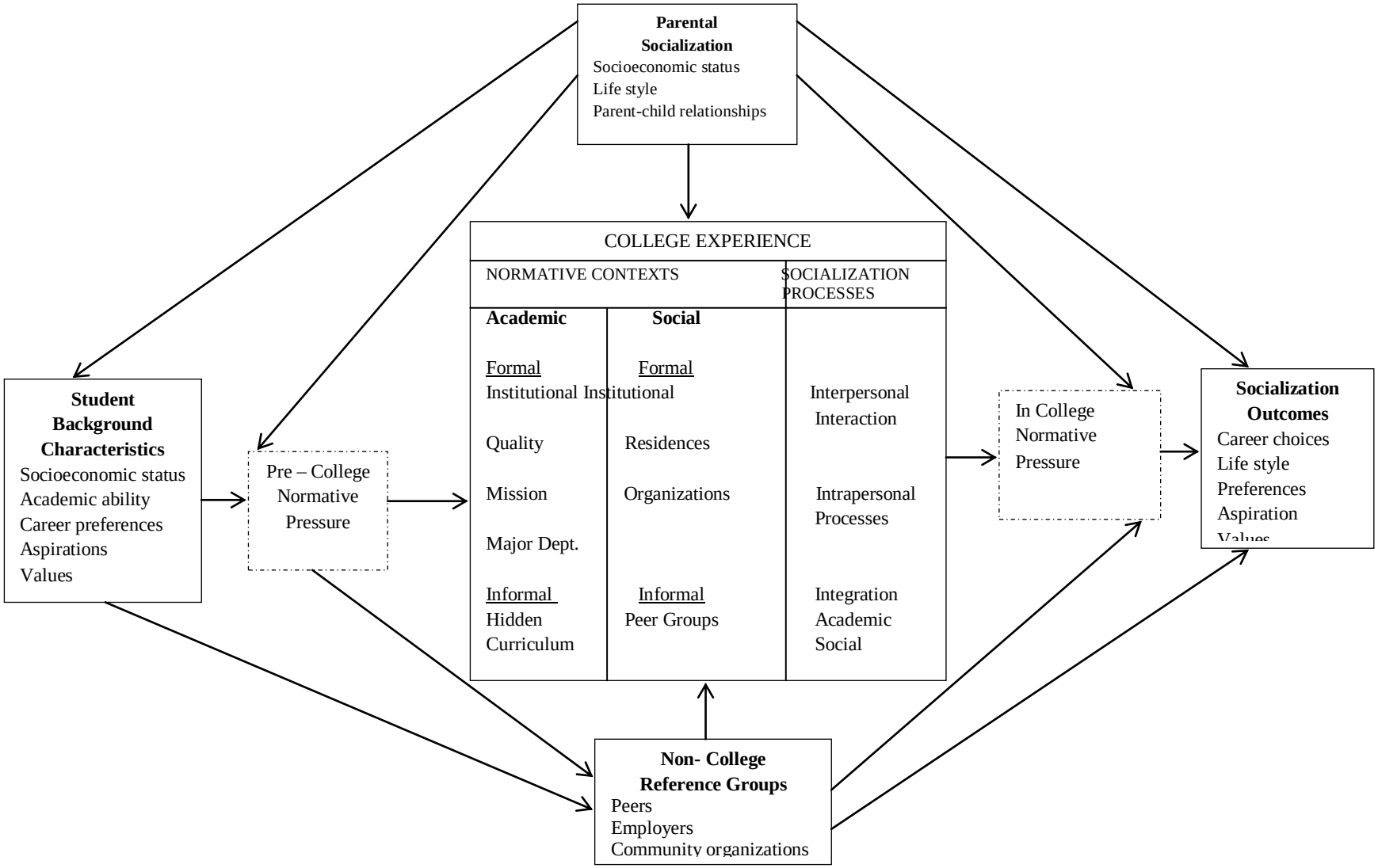

Figure 2.5: Weidman's Conceptual Model of Undergraduate Socialization

Assuming that institutions of higher learning are not isolated from the society, noncollege reference groups are included in the model to explain the influences of student's interactions with other actors outside the campus community and the immediate family. Noncollege reference groups include: friends, relatives, employers, and members of church or other civic organizations. According to Weidman (1989), college students are likely to develop and/or maintain relationships with other members of the society, who are not from campus community or the immediate family. With precollege normative pressure, the model assumed that student entering college can not be considered as a "tabula rasa". Prior experiences with family and significant others outside the college community continue to generate normative pressures that shape the students. Weidman (1989a) noted that "Preferences, aspirations, and values held by students prior to college enrollment from the perspectives and expectations held by students prior to enrollment and shape their encounters with the higher education institution" (p. 303).

Weidman (1989a) divided the college experience into academic and social dimensions. Academic dimension refers to aspects of the collegiate environment that contribute to attainment of the institutional objectives. It is further subdivided into formal academic and informal academic dimensions. Formal academic dimensions include: institutional mission, policies, organization of academic departments, and instructional resources. The "hidden curriculum" – that is unwritten rules defining faculty expectations for student success is part of the informal academic dimensions. On the other hand, formal social dimension constitutes halls of residence, student organizations, and extracurricular activities. Interactions among peers, friends, staff

and faculty represent the informal social dimension.

Academic and social values together with behavioral norms of the college are exerted through both the intrapersonal and the interpersonal processes. According to Weidman (1989a), intrapersonal socialization processes entails students' personal perceptions and assessment of the college environment. Intrapersonal socialization processes includes students' feelings of satisfaction at the college and their contribution to an individual's personal goals attainment. Such interpersonal socialization processes involve continuous interaction between the student and those who seek to influence him or her. The more frequently an individual interacts with significant others, the more he/she is exposed to their attitudes, values, and beliefs. With integration, the student is said to fit in to the college, both socially and academically. In-college normative pressures are intended to ensure student's conformity to group norms. They are conditions within the context of the institution that contribute to change or reinforcement of an individual's values toward institutional conformity. As noted before, socialization outcomes include career choices, life style preferences, aspirations, and values. With such outcomes, an individual is said to change and grow throughout the undergraduate experiences.

2.5 Relationship between Social Adjustment, Academic Adjustment and Academic Performance

Success in college is dependent upon adjustment, and students often report feeling stress due to large changes and conflicts associated with adjustment to college (Rayle and Chung, 2008). Student integration into the campus environment is critical because involved students tend to have better academic performance (Astin, 1984).

The idea is also shared by Grayson (2003) who noted that "all being equal, students who adjust to university life in the sense that they are involved in various activities are more likely to achieve high grades than students who are not involved" (p.413). Osa-Edoh and Iyamu (2012) investigated the effect of social life adjustment on academic achievement of adolescents in senior secondary schools of Edo State in Benin. The study used a sample of 240 respondents randomly drawn from three senior secondary schools in Edo State. Findings showed that social life adjustment influenced students' academic achievement. The study, however, was done in secondary schools such that it limited its generalizability in colleges and universities.

A similar study was conducted by Mohan and Renu (2011) to examine the effect of adjustment on students' academic achievement. A sample of 100 class VII students was obtained from five primary schools of Meerut in India. Findings showed that social adjustment predicted students' academic achievement, and that boy exhibited higher social adjustment than girls. The study was done in primary schools, and probably results would have been different if it would have been done in colleges. In addition, the study used Adjustment Inventory by Sinha and Singh (1995) to measure adjustment but little empirical evaluation of this instrument has been undertaken.

The association between social adjustment and academic achievement among children has been demonstrated in several empirical studies particularly in North America and Western Europe. In general, it was found that children who display sociable and prosocial behavior are likely to achieve highly in academic areas (Masten *et al.*, 1995; Wentzel and Asher, 1995). Chen *et al.* (1997) investigated the relation between academic achievement and social adjustment among Chinese

children. The sample consisted of 482 fourth grade and sixth grade children from two ordinary primary schools, and two ordinary junior high schools in Shanghai, Peoples' Republic of China. It was found that academic achievement predicted children's social competence and peer acceptance. Conversely, results indicated that social adjustment and peer leadership were significantly and positively correlated with academic achievement. Overall, results from the study confirmed the reciprocal relation between the two domains such that social and academic achievements were mutually predictive of each other. The study is limited by the fact that it was done among fourth grade and sixth grade children within the Chinese culture. This limits its generalizability in colleges and universities outside the Chinese culture.

In their longitudinal study, Welsh *et al*. (2001) examined linkages between social and academic competence in a group of 163 school-age children from eight elementary schools in a Southern California school district. Findings indicated that academic competence consistently led to social adjustment, and the reciprocal relations between academic competence and social competence was also revealed. The study was criticized for not comparing respondents' ethnicity and socioeconomic backgrounds. The sample did not allow meaningful comparisons by ethnicity and socioeconomic status. In addition, the study was done among school-age children from elementary schools thereby limiting its generalizability in colleges and universities.

Ladd (1990) investigated the link between peer relations and later academic achievement in young children. The study revealed that children who began the school year with some familiar peers in their classrooms and who developed new

friendships in the first two months of kindergarten had more positive perceptions of school and higher academic performance by the end of kindergarten. Conversely, children who were rejected by their peers suffered lower academic performance. Abdullah *et al*. (2009) used a sample of 250 first year students to examine the adjustment processes in a Malaysian university. Results showed that there was a significant and positive relationship between students' overall adjustment and their GPAs. Through multiple regressions, the study further revealed that the best predictor of students' academic achievement was related to academic adjustment, followed by personal-emotional adjustment. However, there was no significant relationship between academic achievement and social adjustment.

In another study, Cohorn and Giuliano (1999) used a sample of 110 first year students at Southwestern University in central Texas (USA) to examine predictors of adjustment and institutional attachment in first year college students. Findings from the study revealed that academic adjustment and academic achievement was statistically significant. The study also indicated that academic adjustment was significantly related to accessibility of faculty, but close and supportive family was negatively related to academic adjustment. Although the study was limited by homogeneity of the sample, it serves as an indication that academic adjustment and academic performance are significantly related. More importantly, positive academic adjustment predicts overall student's life satisfaction. Lent *et al*. (2009) reported that students with positive attitudes towards academic work, who met all requirements in the academic domain, and who were satisfied with the overall academic environment, were generally satisfied with their life at campus.

2.6 The Concept and Practice of Social Support

Social support is a complex and multidimensional construct, and there is a debate on how it should be conceptualized, defined and/or measured (Barrera, 1986). Shumaker and Brownell (1984) defined social support as "an exchange of resources between at least two individuals perceived by the provider or the recipient to be intended to enhance the well-being of the recipient" (p. 13). Gottlieb (2000) defined social support as "the process of interaction in relationships which improves coping, esteem, belonging, and competence through actual or perceived exchanges of physical or psychosocial resources" (p. 28).

On the other hand, Malecki and Demaray (2002) refers to social support as "an individuals perceptions of general support or specific supportive behaviours (available or enacted upon) from people in their social network, which enhances their functioning and/or may buffer them from adverse outcomes" (p. 2). A more recent definition was provided by Thoits (2010) who refers to social support as "emotional, informational, or practical assistance from significant others, such as family members, friends, or coworkers; and that support actually may be received from others or simply perceived to be available when needed" (p.46).

Social support is also defined as a coping resource used during times of stress (Lazarus and Folkman, 1984). In this case, social support is viewed as a coping resource rather than an environmental condition because the individual uses others' support in times of adversity. Thus, provision of social support intends to show the recipient that he/she is cared, valued and loved. Sarason *et al.*, (1990) also insisted that social support (whether actual or perceived) reflects the feelings that one is

cared for, accepted and that in difficulty times one will have others to turn to for assistance and help. Uehara (1990) noted that social support is understandably labeled as a 'dual exchange' process rather than as a one directional provision of care or help. This view was also shared by Schwarzer and Leppin (1991) who observed that social support manifests through an interactive process of giving and receiving, reflecting reciprocity and a sense of obligation. According to Kahn and Antonucci (1980), social support evolves over time from the person-environment interaction that involves attachment processes, social role requirements, and the nature of social network composition and its support provisions.

Social support is a multidimensional construct often measured by size of social network, quality and frequency of contact with members of the social network, as well as instrumental and emotional forms of support received (Barrera, 1986). Studies on social network research are rooted in Durkheim's (1951) study of social conditions and suicide in the late 1980s. In his studies, Durkheim revealed that people with fewer social ties or social connections and smaller social networks were more likely to commit suicide than those with a greater number of social ties and larger social networks. According to Vaux (1988), a social support network is a collection of individuals whom the support recipient goes for assistance. Generally, a support network contains only a select group of individuals who are deemed as support providers.

The term social network applies to subsets of individuals who discerningly associate with each other. Social networks reflect the social interactions that an individual

experience within a particular social setting such as school, church, or classrooms (Cairns *et al*., 1988). Social networks tend to be established based on shared characteristics such as closeness, racial background and gender, behaviors and interests. Albercht and Adelman (1987) argued that a support network assists a recipient during time of distress, by providing reassurance, resources and companionship as well as aiding in mental or physical recovery. The support network, on the other hand, is a subdivision of a larger social context known as social integration, which contains all social interactions (Schwarzer and Leppin, 1991).

Sarason *et al*. (1983) argued that regardless of how social support is conceptualized, two important elements emerge in the functions served by social support: a) the perception that there is a sufficient number of available others to whom one can turn in times of need, and b) degree of satisfaction with the available support. According to Sarason *et al*. (1983), the two basic elements may vary in their relation to one another, depending on the individual's experiences, personality, and a feeling of control over the environment. Social support is more often labeled as a 'dual exchange' process rather than as a one directional provision of care or help (Uehara, 1990).

Schwarzer and Leppin (1991) asserted that social support manifests through an interactive process of giving and receiving, and is associated with the perception of reciprocity, altruism, a sense of obligation. Social support emerges from substantial assistance by others, in form of either material, emotional, informational, or

companionship – which is mutually agreed as support by both the provider and the recipient. Pearlin (1989) asserted that social support depends on the strength of ties, willingness to provide, and the quality of such support rather than the number of ties that an individual has in a given social network.

2.6.1 Theoretical Models of Social Support

There have been several distinct theoretical models that articulate how social support constructs interact and influence each other, as well as their associated effects on stress, coping, emotional and physical health. Lakey and Cohen (2000) assert that theoretical models guiding most the social support research can be categorized into one of the following three perspectives: stress and coping theory; social-cognitive model; and the relationship perspective.

2.6.1.1 Stress and Coping Theory

According to Lakey and Cohen (2000), the stress and coping theory is the dominant perspective in social support research. In this perspective it is theorized that social support provides an individual with a buffer or protection against negative effects of stressful events. Supportive actions of others act to facilitate the recipient's coping, which then reduces the negative effects of stress on the individual's well-being, as shown in Figure 2.6. In the same way, perceptions of available support lead to appraising potentially threatening situations as less stressful, as illustrated in Figure 2.7.

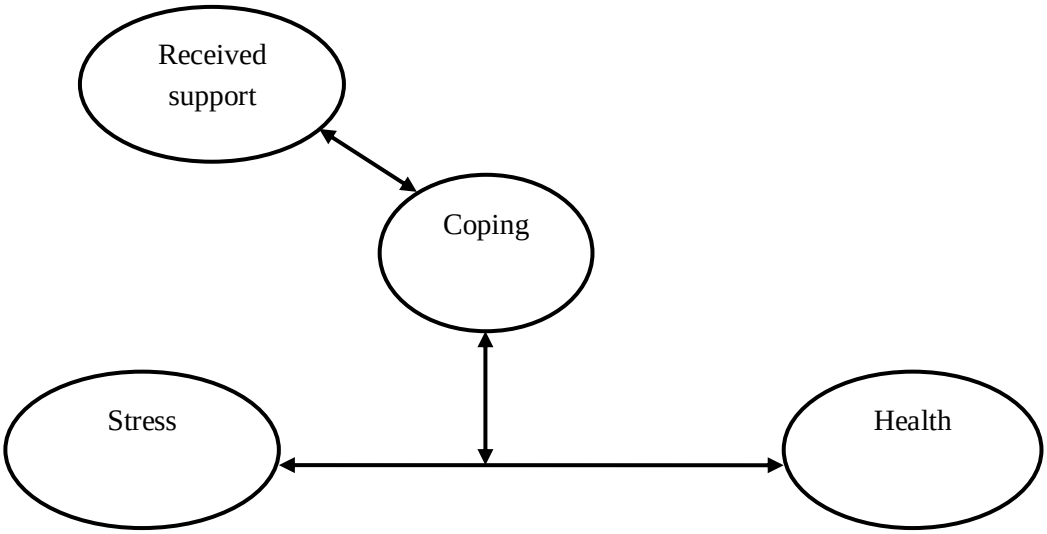

Figure 2.6: The Supportive Action Approach: Adopted from Lakey and Cohen (2000)

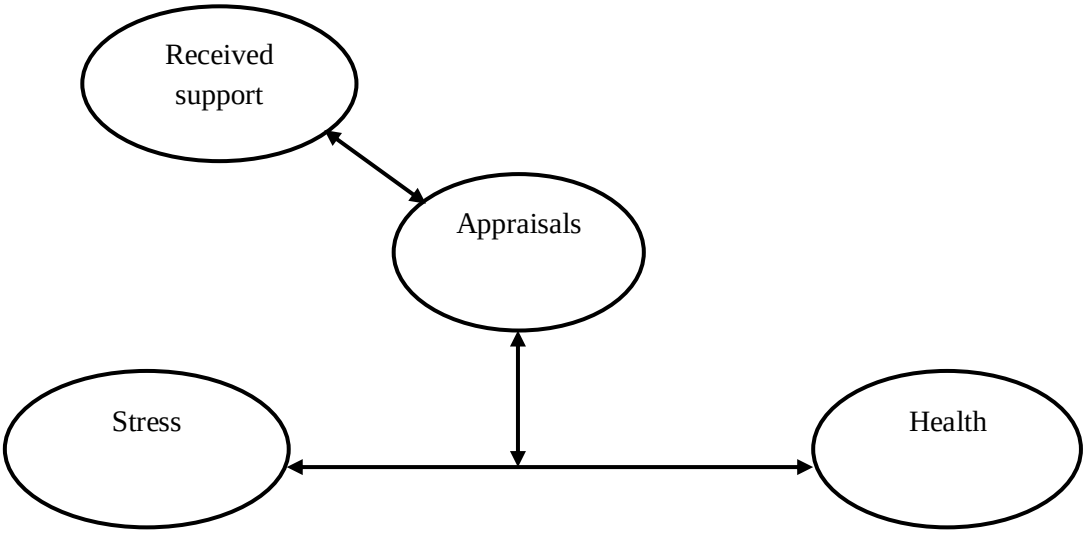

Figure 2.7: The Appraisal Approach: Adopted from Lakey and Cohen (2000)

2.6.1.2 Social-Cognitive Model

The social-cognitive model draws from basic research in social cognition and from cognitive models of psychopathology (Lakey and Drew, 1997). Social-cognitive views social support in terms of individuals' perceptions of social support. The model stipulates that an individual's perception of social support influences one's self-esteem and identity, which then indirectly influences important outcomes, such as health and well-being (Vaux, 1990; Kaul and Lakey, 2003).With mediating influences of self-esteem and identity, the individual's own appraisal of social support is strongly linked to various health-related outcomes (Kaul and Lakey, 2003).

2.6.1.3 Relationship Perspective

In this model, social support is conceptualized as part of more generic relationship processes. The assumed benefits of social support are highly interrelated with interpersonal relationship qualities and processes, such as companionship, intimacy, social skills and low conflict (Sarason, 1974; Thompson *et al*., 2006). These relationship qualities and processes are believed to be key factors that overlap and influence individual's social support and well-being (Lyons *et al*., 1998). Figure 2.8 illustrates the relationship perspective, in which the linking of support and health outcomes both result from interactions of companionship, intimacy, and low conflict.

2.6.2 Functions Served by Social Support

Many scholars differ with respect to the definition and specific functions served by social support. However, there is most agreement among scholars that functions

served by social support include: emotional sustenance, esteem (value support), information (cognitive guidance and advice), companionship support, and tangible assistance (Cutrona and Russell, 1987; Cohen and Wills, 1985; Cohen and Syme, 1985). Figure 2.9 summarizes social support functions as conceptualized by several scholars.

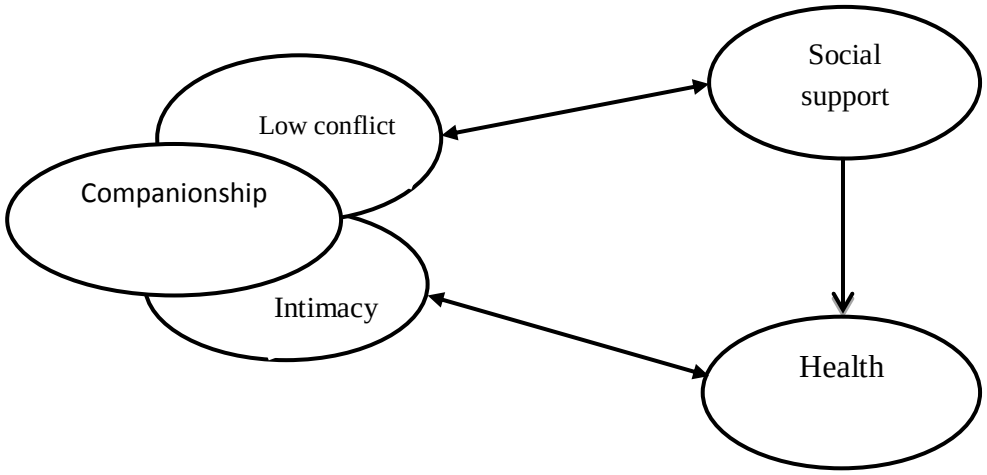

Figure 2.8: The Relationships Perspective: Adopted from Lakey and Cohen (2000)

Weiss (1974)	**Cobb (1979)**	**Kahn (1979)**	**Schaefer *et al.* (1981)**	**Cohen *et al.* (1985)**
Guidance Reliable alliance Reassurance of worth Opportunity for nurturance Attachment Social integration	Emotional support Network support Esteem support Material support Instrumental support Active support	Affect Affirmation Aid	Emotional support Tangible aid Informational support	Belonging support Self-esteem support Tangible support Appraisal support

Figure 2.9: Functions Served by Social Support as Adduced by Different Authors Source: Adopted from Cutrona and Russell (1987)

2.6.2.1 Emotional Support

Tolsdorf (1976) describes emotional support as assistance in form of encouragement, personal warmth, and love. Jacobson (1986) described emotional support as a behavior that fosters feelings of comfort and leads an individual to believe that he or she is admired, respected, and loved, and that others are available to provide care as well as security. Thus, emotional support conveys the expressions of care and concern that serve to elevate a person's sense o own value and adequacy (Gottlieb, 1983). An expression such as telling someone, "You mean so much to me", meets an individual's emotional or affective needs.

2.6.2.2 Esteem Support

Esteem support refers to expressions that bolster an individuals' self-esteem or beliefs in their ability to handle a problem or perform a certain task. Brank, *et al*. (1994) asserted that esteem support refers to expressions of regard for one's skills and abilities such as when people say: "I know you will do a good job". Esteem support encourages individuals to embark on necessary actions and convincing them that they have the ability to confront difficult tasks or problems.

2.6.2.3 Informational Support

House (1981) argues that informational support means giving information or teaching a skill that can provide a solution to a problem. Informational support includes advice, factual input, feedback and actions. Informational support gives useful information or details that assist an individual to make informed decisions or choices.

2.6.2.4 Companionship Support

Cohen and Wills (1985) described social companionship as spending time with others in leisure and recreational activities. This may reduce stress by fulfilling a need for affiliation and contact with others. Companionship support affirms individuals' belonging to a social network, and entails a sense of belonging among people with similar interests and concerns.

2.6.2.5 Tangible Assistance or Material Support

This is the most straightforward to define, and for which there is the most agreement among scholars. It refers to provision of goods and services that help to solve practical problems (Jacobson, 1986). It includes a wide range of activities such as lending or donating money, helping with practical tasks, providing material goods such as books, foods, furniture, and providing help in time of injury or illness (Wills, 1985).

2.6.3 Categories of Social Support

Social support is a general term with three distinct types of support. They include: i) social connectedness or social embeddedness, ii) perceived social support, and iii) actual or enacted social support (Barrera, 1986; Lakey and Drew, 1997; Dunkel-Schetter and Bennett, 1990). According to Lakey and Drew (1997), each type of social support has its own unique features, and behaves differently with other constructs and variables. Thus, each type of social support is a different construct, and has little in common with others (Barrera, 1986; Lakey and Drew, 1997; Sarason *et al*., 1990). Several studies, for example, indicate that there is a strong association between perceived social support with mental and physical health than with enacted

support or social connectedness (Haber *et al*., 2007).

2.6.3.1 Social Connectedness

According to Barrera (1997), social integration refers to the number or range of different types of social relations. Such social relations may be from members of variety contexts: churches, mosques, temples, schools, siblings, marital status, among others. Likewise, Kaul and Lakey (2003) refers to social connectedness as the quantity and quality of social ties or interpersonal connections that an individual has with others, including both informal and formal social relationships. Informal relationships may include family members, relatives, friends, and neighbors, whereas formal relationships may include teachers, health professionals, and counselors, to mention a few (*ibid*).

Social connectedness is a stable individual difference that reflects awareness and internalized experience of interpersonal closeness in relationships with family, friends, strangers, community, and society (Lee & Robbins, 2000). Social connectedness can be conceptualized as the way an individual views his or her self in relation to the social world, as emotionally connected or disconnected. Lee and Robbins describe connectedness as "the ability to feel comfortable within a social context larger than family or friends."

According to Lee and Robbins (2000), connectedness is a piece of the larger construct of belongingness. It begins in infancy and continues developing throughout life. The initial stage, companionship, occurs when the infant bonds with a nurturing

parent. This later extends to close others or objects such as toys. The next stage, affiliation, emerges in response to demands of adolescence in which the sense of self must extend beyond the primary caregiver to similar peers. The final and most advanced stage, connectedness, characterizes an individual comfortable in social roles and responsibilities and able to identify with others perceived as different. Lee and colleagues (2001) posited that individuals low in connectedness tended to engage in dysfunctional interpersonal behaviors as a protective mechanism against social rejection. The authors (*ibid*) found that, in a normal college student sample, social connectedness was a mediator and explained that social connectedness allows individuals to maintain well-being across different social situations.

2.6.3.2 Perceived Social Support

Sarason *et al*. (1990) explained perceived social support as an individual's belief that social support is available, and generally reduces the negative effects of stress. It is the subjective judgment that family and friends would provide assistance with future stressors. People with high perceived social support believe that they can count on their family and friends to provide assistance during times of trouble. Bianco and Eklund (2001) asserted that a person's perception of stable perceived social support delivers positive feelings, a sense of stability and elevates a person's sense o own value and adequacy. Similarly, Sarason *et al*., (1990) reported that a number of measures of perceived social support have persistently shown the positive association between social support and health outcomes. Also, Uchino (2009) noted that perceived social support has been shown to predict positive health outcomes than received social support.

2.6.3.3 Actual or Enacted Social Support

According to Barrera (1986), actual or enacted social support reflects the kind of assistance just received and the specific supportive actions reported. The actual or enacted social support focuses more on an individual's report of support they have actually received. It is the support an individual receives in terms of what is said, what is given, and what is done for that particular individual. Schulz and Schwarzer (2004) defined enacted social support as the provision of emotional, informational, and instrumental support to individuals by close confidants or others, such as family members, friends, or colleagues.

2.6.4 Social Support and Academic Performance

The beneficial impact of social support has been associated with both physical and mental health outcomes. Hobfoll and Stephens (1990) found positive correlation ties between social support and recovery from illness, adjustment and ability to cope with extreme stress and loss. Steinhardt and Dolbier (2008) noted that social support is often agreed as a buffer against the negative effects of stress, including stress in an academic context. Wilcox *et al*. (2005) reported that social support network available to students has been found to be one of the most significant factors which affect students' academic success, and each source of social support behaves differently with other constructs, including student adjustment to the college. Social support leads to mutual assistance, feeling of self-worth, and helps in cognitive development by providing stimulus, leading to intellectual advances (Vaux, 1990).

Comparing African Americans and whites, Jay and D'Augelli (1991) conducted a study to examine social support and adjustment to university life among first year

students. Findings from the study showed that social support was positively related to psychological and physical well-being of both African Americans and whites. Mounts (2004) observed that greater parental support was linked to lower levels of depression, social and general anxiety, and loneliness, as well as higher levels of self-worth among college students. Similarly, Compas *et al*. (1986) reported that poor social support was linked to symptoms of anxiety, depression, and somatic disorders among first year college students.

Cutrona *et al* (1994) investigated the extent to which parental social support predicted college academic achievement among undergraduate students. A sample of 418 undergraduate students at the University of Iowa in the United States of America participated in the study. The study showed that parental social support was a significant predictor of college academic achievement. Similarly, parental social support predicted college academic achievement across a group that was quite heterogeneous in terms of students' specializations and ability levels. However, academic achievement was not predicted by social support from either friends or romantic partners, who were in more frequent contact with college students than were parents.

According to Cutrona *et al*., (1994), different mechanisms may be responsible for links between outcomes predicted by parental social support and those predicted by peer social support. Friendships and romantic relationships are generally of relatively recent origin and, in most case, could not have played a role in shaping one's character. Generalizability of findings in other colleges and universities outside the United States of America is questionable. The study also used the Social Provisions

Scale to measure social support among undergraduate students at the University of Iowa in the United States of America. Thus, there is need to use other instruments to measure social support outside the United States.

Dzulkifli and Yasin (2011) conducted a study to examine the relationship between social support and academic achievement. The sample of the study consisted of 120 undergraduate students of the International Islamic University Malaysia. Results from the study revealed that there was a significant positive relationship between social support and academic achievement. The results indicated that the higher the social support, the higher the students' academic achievement. Gonzalez and Padilla (1997) conducted a study to identify factors that contribute to academic success among Mexican-American high school students. The study employed three variables, namely: supportive academic environment, sense of belonging to school, and cultural loyalty. The study revealed that supportive academic environment was the strongest of all predictors for academic success, accounting for 19.78 percent of the variance. The study was, however, done in secondary schools and probably results would have been different if it was done in colleges.

Carolyn (2010) conducted a study on social support and measures of alcohol use, perceived stress, satisfaction with life, emotional intelligence and coping. The study included 259 respondents from Saint Michael's College in the Northeast region of the United States of America. Findings from the study indicated that perceived stress scores were significantly lower for respondents with 5 or more caring adults to turn to in difficult times than respondents with 4 or fewer caring adults. In addition, the study revealed that social support from caring adults and close friends was

associated with positive wellbeing among college students and were considered as a contributing factor to a buffering effect from adversity. But the study dwelt much on domains of support networks perceived to be available to college students than actual social support. Regardless the limitation of the study, it is worth noting that having more people to turn to for support or in times of adversity is better than having fewer people. Dollete *et al*. (2004) found that social support could act as a protective strategy that could decrease problems among students, and that without enough support from family and friends, they would be in trouble and vulnerable to psychological disorders.

Among high schools students, Chou (2000) found that family social support was associated with lower levels of depression while friend social support was associated with lower levels of anxiety. Similarly, among college students, Clara *et al*., (2003) found that both family and friend social supports were associated with lower levels of depression. Davis *et al*., 1998 assessed social support available to college students across four specific domains including family members, friends, romantic partners and faculty advisors. Findings from the study showed that friends were identified as the strongest source of support followed by parents and romantic partners, while support from faculty advisors was very minimal.

Overall, the friends domain of social support accounted for the most powerful associations with well-being of students. Their findings are consistent with Chou (2000) as well as Clara *et al*., (2003) who identified friends, parents and other family members as the most often reported social support domains among high school and college students. Chou (2000) further noted that the domains of social support were

strongly associated with well-being.

In a sample of 120 undergraduate students, Safree and Adawiah (2009) conducted a study to determine levels of social support for both low and high achievers in academic domains. Results from the study indicated that students with high social support had higher academic performance than those with low social support. Likewise, Steinberg and Darling (2005) reported that there was significant relationship between social support and academic achievement among students. Social support from both family and friends influenced students' educational achievement and their long-term educational plans (*ibid*). Other studies of social support and academic outcomes generally indicated that emotional support has positive associations with various academic constructs, including motivation and academic performance (Goodenow, 1993; Patrick, Ryan, and Kaplan, 2007).

2.7 Academic Performance Among College Students

Empirical literature indicates that the construct 'academic performance' has been used interchangeably with terms such as 'academic competence', 'academic achievement' and 'academic ability' (Rotheram, 1987; Henggeler, *et al*., 1991). Similarly, terms like academic persistence, academic attainment, and academic achievement have all been used to explore college based performance outcomes (Lundberg, 2010; Cokley and Chapman, 2008; Ladson-Billings, 2006). DiPerna and Elliot (1999) defined academic competence as a multidimensional construct composed of the skills, attitudes, and behaviors of a learner that contribute to academic success. Kuh *et al*. (2006) observed that academic success as a construct

encompasses multiple definitions including college persistence, student satisfaction, standardized scores, duration to earn a degree, and writing proficiency. Other researchers and academicians define academic success as attainment of high grade point average (Palmer and Young, 2008; Davis, 1994). For the purpose of this study, academic performance will be examined through grade point average (GPA), and terms academic success, academic achievement, as well as student outcomes were used interchangeably throughout the report.

College students' performance is usually expressed in terms of grade point average (GPA). According to Richardson *et al*. (2012) grade point average is the mean of marks from weighted courses contributing to assessment of the final degree. Strenze (2007) noted that grade point average is the key criterion for postgraduate selection and graduate employment, as well as an important predictor of occupational status. Educators, trainers and researchers have long been interested in exploring variables contributing effectively to learners' quality of performance. A number of models have been developed by some scholars to explain factors that affect students' academic performance.

2.7.1 Theory of Educational Productivity

Walberg (1981) introduced the Theory of Educational Productivity in which he mentioned three factors based on affective, cognitive and behavioral skills for optimization of learning that affect the quality of academic performance: aptitude, instruction, and environment. The interplay among factors is shown in Figure 2.10.

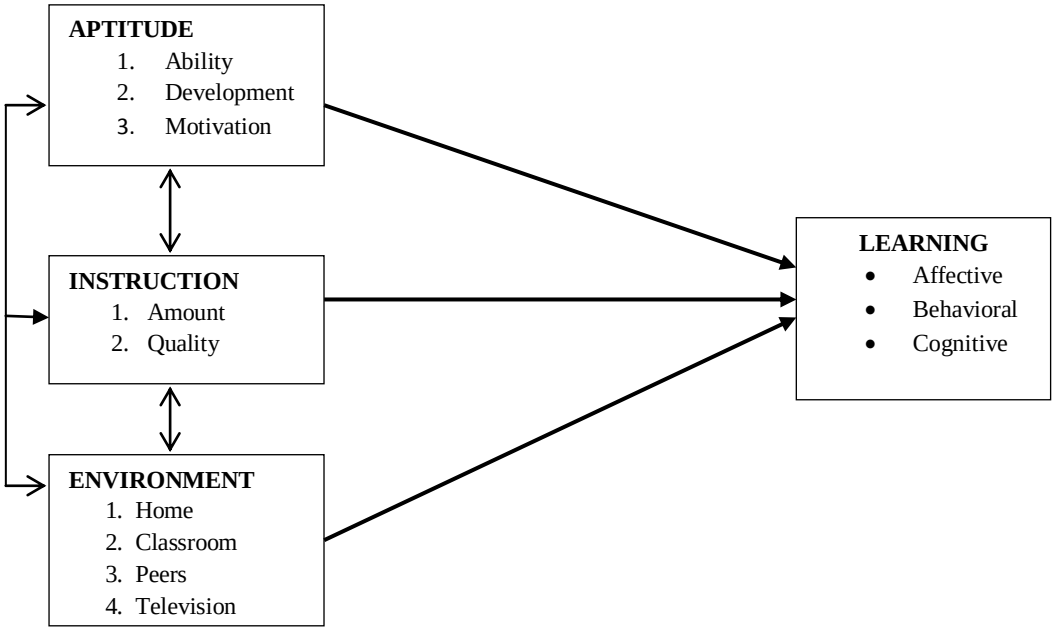

Figure 2.10: Interplay among the variables in the Theory of Educational Productivity Model: Adopted from Walberg (1981)

According to Walberg (1981), a student's aptitude includes the following: i) ability of prior achievement, as measured by standardized tests, ii) development, as indexed by chronological age or stage of maturation, and iii) motivation, or self-concept, as indicated by personality test or the student's willingness to persist intensively on learning tasks. With instruction, Walberg (1981) included the following factors: i) the amount of time students engage in learning and, ii) the quality of the instructional experience, including psychological and curricular aspects.

Walberg (1981) included the following four factors under environment: i) the home, ii) the classroom social group, iii) the peer group, and iv) out-of-classroom experiences (specifically the amount of leisure time). Thus, aptitude, instruction, and the psychological environment are major direct causes of learning. They influence one another and in turn they are influenced by feedback on the amount of learning

that takes place. The Theory of Educational Productivity throws much light to this study, because like many other models, it embraces the fact that students' educational outcomes must be assessed from multiple factors.

2.7.2 The Four Commonplaces of Academic Adjustment

According to Schwab (1973), educational experiences of students are shaped by contributions arising from the four 'commonplaces' of education: the student, the teacher, the curriculum/subject matter, and the milieu. Commonplaces are equally vital in shaping the students' educational experiences. The interplay among the commonplaces is illustrated in Figure 2.11. According to Schwab, to promote a richer and more holistic educational experience, it is necessary that educators and educational researchers take a more eclectic approach. An approach that allows viewing students' educational experiences from multiple angles: the student, the teacher, the curriculum/subject matter, and the milieu.

The subject matter encompasses essential learning related to knowledge and competencies. It consists of knowledge that learners must gain during a particular period of schooling. The teacher is responsible for deeply understanding this subject matter and enacting the curriculum within the learning environment or milieu. The learner is the intended beneficiary of this curriculum. Thus knowledge of the background, intellectual, social and emotional needs of the learner is essential. The milieu refers to the context in which learning occurs. According to Schwab, it is conceived as the classroom, the school, and the community in which learning occurs. The milieu can impact on teacher practices as well as on students' engagement in learning activities. While each commonplace has its own unique theoretical

underpinnings, they are necessarily connected, and each influences the others (Sack, 2008). The interplay among subject matter, how a learner can come to understand it, and the manner in which a teacher introduces the subject matter in the classroom milieu are all essential to understand college students' outcomes.

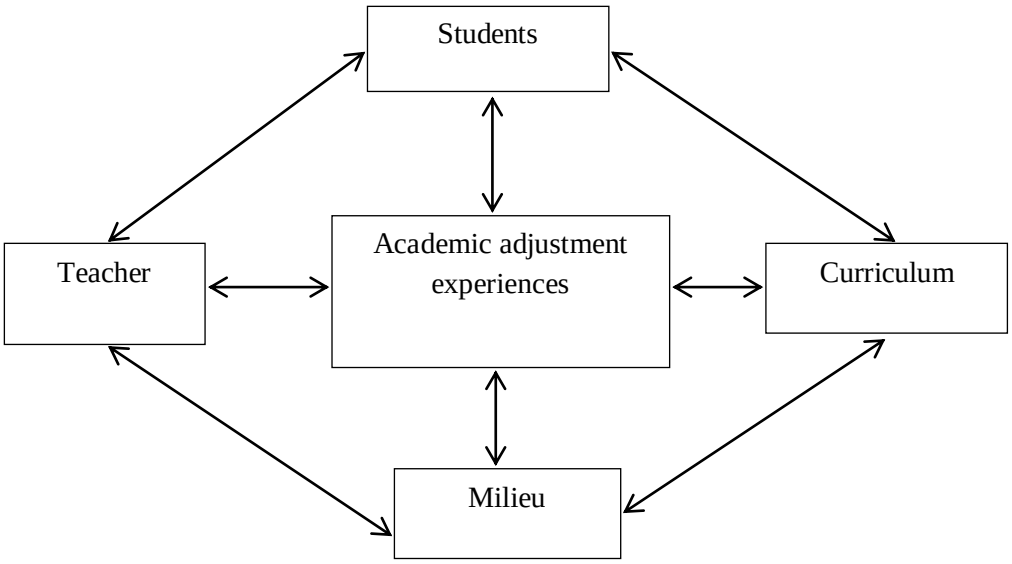

Figure 2.11: Dynamics of Academic Adjustment: Adopted from Schwab (1973)

2.7.3 Motivational Model of School Performance

This model was proposed by Fortier *et al.*, (1995) and focused on the relationship between academic motivation and school performance. It was hypothesized that perceived academic competence (sense of being effective in the academic domain) and perceived self-determination serve as motivational antecedents (students' motivation toward education) to directly and positively influence autonomous academic motivation. Then, autonomous academic motivation is predicted to have a direct impact on school performance as illustrated in Figure 2.12.

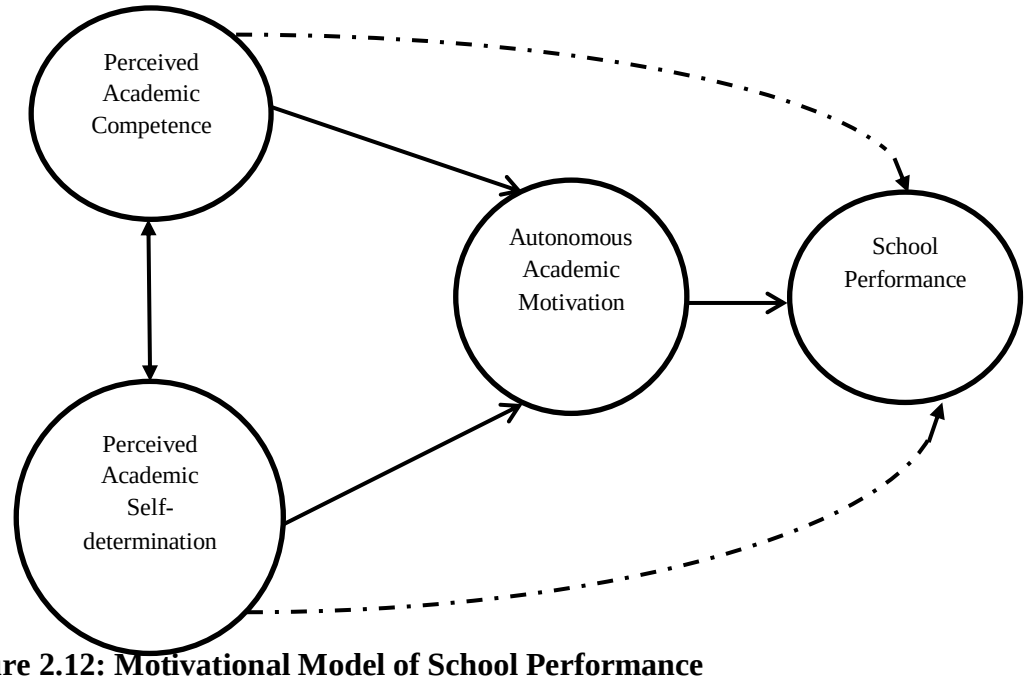

Figure 2.12: Motivational Model of School Performance

Source: Adopted from Fortier et al., (1995)

According to the motivational model of school performance, student who feel competent and self-determined in the school context develop an autonomous motivational profile toward education which in turn leads them to obtain higher school grades. One of the notable limitations regarding this model is how the variables were tested. The model was tested using structural equation analyses and thus it is inappropriate to make clear statements regarding causality. The fact that higher levels of autonomous academic motivation lead to improved school performance does not rule out that achievement also influences academic motivation.

2.8 Predictors of Academic Performance Among College Students

A number of schools have conducted research to determine predictors of academic performance among college students. Richardson *et al*., (2012) reviewed 13 years of

research into correlates of tertiary-level academic performance. The authors (*ibid*) categorized predictors of academic performance into the following five research domains: (a) personality traits, (b) motivational factors, (c) self-regulatory learning strategies, (d) students' approaches to learning, and (e) Psychosocial contextual influences. The researchers further noted that predictions of academic performance may be more accurate if they are based on assessment of a variety of individual differences, not just of past achievement and cognitive capacity.

Astin (1992) noted that retention of college students' and their subsequent academic performance depend on three important variables: personal, institutional, and demographic variables. Personal variables emanate from the individual, and they are divided into two groups: cognitive and non-cognitive variables. Non-cognitive variables include; self-esteem, locus of control, social and academic integration. Cognitive variables include: high school grade-point average, class rank, and college entrance examination. These variables are part of the students' past academic performance. By demographic variables, Astin (1992) mentioned parental level of education, parental level of income, gender, age, and ethnicity. Institutional variables emanate from the institution, such as academic seminars, financial aid, counseling services, institution's climate and environment, faculty's interactions with students, and any other programs to assist students excel in academics.

Throughout the literature there is a large volume of studies that dwell on predictors of academic performance among college students. For the purpose of this study, the predictors of academic performance were categorized into six categories: i) Students' prior achievement (high school academic performance and standardized

test scores); ii) Demographic variables – gender, parental level of education, parental level of income, socioeconomic status, and ethnicity; iii) Personality factors and students' attributes; iv) Students' approach to learning and learning styles; v) Motivational factors; and vi) Institutional factors and students' involvement (peer and faculty interactions); The list, however, excludes social support and adjustment, as predictors of academic performance among college students.

2.8.1 Students' Prior Achievements

High school grades, and standardized test scores have been used for many decades as predictors of college students' academic performance, as Wesley (1994) observed "grades earned in high school are taken as an estimate of the students' overall effectiveness in scholastic endeavors" (p.404). Bauer and Liang (2003) indicated that high school grades, and standardized test scores were the best predictors of GPA, and explained the largest variance in later college educational outcomes. DeBerard et al (2004) did a study to ascertain predictors of academic achievement and retention among college freshmen. The study involved 204 undergraduate students from a private Northwest university in the United States of America. It was revealed that Scholastic Aptitude Test (SAT), high school GPAs, and social support were significantly related to college academic performance. The study further revealed that coping was also a significant predictor of academic achievement. The study, however, was conducted among freshmen only such that generalizability of the findings is questionable.

Pentages and Creedon (1978) reviewed research conducted in the area of college attrition from 1950 to 1975 and found that students' persistence and academic

success were mostly predicted from high school GPAs and Scholastic Aptitude Test scores. In another study, Neely (1977) found that high school GPA, high school class rank, and American College Testing Program (ACT) scores were the strongest predictors of college students' educational outcomes.

Similarly, Baron and Norman (1992) using a sample of 4170 students at the University of Pennsylvania, revealed that high school grades were better predictors of college academic performance than Scholastic Aptitude Test scores. Using participants from the Illinois State University in the United States, Edge and Friedberg (1984) examined the relationship between cognitive factors and academic success in the first calculus course in college. Cognitive variables tested were: high school algebra grades, high school ranks, American College Testing Program (ACT) scores, high school GPAs, and algebra pretest scores. Among other cognitive factors, research findings indicated that high school ranks and algebra pretest scores were the best predictors of calculus course performance.

Duff (2005) conducted a study that examined the role of approaches to learning and prior academic achievement among 60 first year undergraduates doing accounting and business economics. Findings from the study showed that prior academic achievement was the strongest predictor of first year academic performance. Also, students who adopted deep approach in learning excelled better in academic work than those who embraced surface approach (*ibid*). Choppin and colleagues (1973) noted that high school grades were better predictors of college first year examination results but the prediction varied with the type of student and program specialization. This view was supported by Peers and Johnston's (1994) meta-analysis study which

revealed that high school grades accounted for 8 percent of the variation in degree performance on average. The study further showed that high school performance was a better predictor in universities than polytechnics, for science courses, and the weakest predictor for social sciences courses.

Dennis *et al*. (2005) conducted a study to investigate the ways in which motivational characteristics and social support contributed to academic success among the ethnic minority first generation students. The study had 100 college students from an ethnically diverse university on the west coast in the United States of America. Among other findings, the study revealed that high school GPA was the strongest predictor of cumulative college GPA (*ibid*). Several other scholars support the argument that there is a positive association between high school grades and college students' academic performance (for example, Touron, 1987; Birch and Miller, 2006). Despite the predictive power of high school grades and standardized test scores, researchers have found unexplained variance in prediction of college later academic outcomes. This prompted researchers to look for other factors that impact on college students' academic performance, including non cognitive variables.

2.8.2 Demographic Variables and Academic Performance

Research suggests that there is a relationship between students' demographic characteristics and their academic achievement. The following sub-sections present discussion on some demographic variables and how they relate to college students' academic achievement. The demographic variables include: gender, parental education, and socioeconomic status.

2.8.2.1 Gender and Academic Performance

Literature review reveals that gender is not a consistent predictor of academic performance (Bridgeman and Wendler, 1991). However, in some studies, it has been revealed that males tend to perform better in certain types of courses (economics and electrical engineering courses) while females do better in other types of courses, including nutrition studies (Keller *et al*. 1993; Schram, 1996). Richardson *et al*. (2012) reviewed 13 years of research into correlates of tertiary-level academic performance and revealed that female students and those from higher socioeconomic backgrounds attained higher GPA scores than their counterparts.

Such results are similar to findings by other studies (for example, Dennis et al., 2005; Robbins *et al*., 2004; LaForge and Cantrell, 2003) which revealed that females as well as students from high socioeconomic status tended to perform better academically than those from poor families. Farooq *et al*. (2011) did a study on factors affecting students' quality of academic performance in secondary schools in the metropolitan city of Pakistan.

The study was conducted in 12 schools with a sample of 600 secondary school students. It was revealed that parental education (but not parental occupation) and gender had significant effect on academic performance. In that study, female students performed better than their male counterparts in subjects like English and mathematics as well as in overall achievements scores. The study was conducted in secondary schools and probably results would have been different if it would have been done in colleges.

2.8.2.2 Parental Education Level and Students' Academic Performance

Several researchers agree that parental education is one of the predictors of college students' academic performance (See, for example, Ting and Robinson, 1998; Elikns *et al*., 1998; Terenzini *et al*., 1996; York-Anderson and Bowman, 1991). Chen (2005) reported that first generation college students (those whose parents did not graduate from college) have a more difficult time successfully completing college than other students. Zalaquett (1999) noted that first generation college students may be less equipped for college due to inadequate academic preparation from high school. Richardson and Skinner (1992) shared the same idea as Zalaquett's (1999). In another study, Terenzini *et al*. (1996) asserted that first generation college students lacked both personal and social support that could contribute to better academic outcomes.

According to Choy (2001), parents who have earned college degrees have knowledge regarding higher education, and provide useful information to their children, including assisting in proper application process. This view was provided before by Coleman (1988), who asserted that parents who have earned college degrees know better the benefits of acquiring a college degree, and share this information with their children. Conversely, parents who have not attained college education have limited knowledge about higher education, and have difficulty advising regarding college admission procedures.

Such parents are also not well informed of strategies to assist their children navigate and excel well in studies (Brooks-Terry, 1988). Astin (1964) reported that parental education level has a positive impact on academic success and persistence. Vazquez

and Garcia- Vazquez (1995) found a positive association between students' GPAs and parental levels of education. Students' educational aspirations were strongly influenced by their parents' attitudes regarding necessity of attaining higher education. With a sample of 1933 students from 18 colleges in USA, Sadler and Tai (2001) conducted a study on the relationship between students' demographic and high school variables and their grades in an introductory college physics course. Results from the study revealed that parent level of education, student's ethnicity, gender, type and location of high school were among predictors of students' grades in physics course.

There is, however, a different view regarding the role of parental education to predict college students' academic performance. According to Lopez (2001), first generation college students, and in particular those from low socioeconomic backgrounds, see education as the only means to give them better future. They work hard to avoid difficult lives for their parents (*ibid*). Gandara (1982) supported Lopez's (2001) contention by reporting that a number of minority students who were the first in their families to attend college excelled well in their studies.

In another study by Hossler *et al*. (1999) it was revealed that strong encouragement and support from parents and other family members was the most important of all factors that contributed to students' success regardless of parents' level of education. Likewise, Hertel (2002) reported that the family plays a stronger supportive role for first generation college students than for second generation college students. This view is also shared by Dennis et al. (2005) who asserted that parental support affects minority students' personal and career motivations, which in turn has shown to

positively affect students' college commitment, and later educational outcomes.

2.8.2.3 Socioeconomic Status and Students' Academic Performance

Family income has direct, negative impacts on students' persistence and later academic success. According to Trusty (2000), students from low socioeconomic status experience many barriers to higher education, including college choice, parental financial assistance, and realistic future plans. Adams (1996) reported that low socioeconomic status (SES) has negative effect on students' academic performance because their basic needs remain unfulfilled and hence they do not perform better academically. According to the US Department of Education (2003), students from low socioeconomic status are confronted with environmental deficiencies which results in low self esteem and this impinges negatively on their academic performance.

Research has found that lower levels of socioeconomic backgrounds are associated with lower levels of academic achievement (Arnold and Doctoroff, 2003; Toutkoushian and Curtis, 2005). Brooks-Gunn and Duncan (1997) reported that children from low socioeconomic backgrounds had increased risks related to academic issues such as repeating a grade, learning disabilities, and high school drop out when compared to their counterpart from higher socioeconomic backgrounds. Likewise, students from low socioeconomic backgrounds are likely to attend schools of lower quality than their peers from higher income families (Hochschild, 2003). In addition, it has been observed that indicators of school quality such as teacher quality, availability and quality of resources (e.g., computers, books), student/teacher ratios, and per-student budgetary allocations have been found to be of lesser quality

in schools with larger populations of students from poor backgrounds (Lankford *et al*., 2002).

Rouse and Barrow (2006) observed that economically disadvantaged parents are less able to afford the cost of education for their children at higher levels, and this impact negatively on students' academic potentiality. This view was brought out by Eamon (2005), who noted that students' performance is negatively correlated with parents' low socioeconomic status because it hinders the individual to gain access to sources and resources of learning. Also, Volle and Federico (1997) observed that in several occasions low income parents expected their children to work after high school rather than join colleges, in order to contribute to the family's meager income.

In a sample of 299 college students, Backhaus (2009) did a study to investigate among other things the relationships between student socioeconomic background and adjustment to college. The findings from the study showed that students with low socioeconomic backgrounds were less well adjusted both socially and academically, than their peers from higher socioeconomic backgrounds. This view was also earlier articulated by Walpole (2003) who noted that students from low socioeconomic backgrounds were less likely to be involved in non-classroom activities (e.g. school sponsored clubs/groups, athletics), and were less likely to live on campus (King, 2005).

Similarly, Terenzini *et al*., (2001) reported that students from low socioeconomic backgrounds were likely to work more hours, and more likely to attend college on part-time basis. It seems reasonable to believe that students who spend more time on

campus by living there, attending full-time, and working less have a much better chance of feeling attached to their academic institution and attain better grades than those students who spend significantly less time on campus.

In one longitudinal study, Walpole (2003) investigated how socioeconomic status affects college experience. Findings from the study showed that students from lower socioeconomic backgrounds were less involved in extracurricular activities, spent more time working for pay, and attained lower GPAs than students from high socioeconomic status. Nine years later in a college, students from lower socioeconomic backgrounds had lower levels of graduate school attendance and lower levels of educational aspirations than their peers from high socioeconomic backgrounds. Pascarella and his colleagues (2004) also noted that students who spent more time working for pay while attending colleges had poor educational outcomes compared to their peers. Biggs and colleagues (1991) reported that, in Australia, college students from lower socioeconomic background and having many family problems were both associated with either a decreased performance or an increased attrition rate in the first year. This view was also shared by Liljander (1998) and Scott *et al*. (1996).

Ostrove and Long (2007) conducted a study to ascertain whether or not social class and belonging had any effects on students' adjustment and academic performance. With 324 participants from Liberal Arts College in Midwest in the USA, Ostrove found that, social class background was strongly related to both social and academic adjustment. The study further revealed that social class background was strongly related to a sense of belonging at college, which in turn predicted academic

performance. One important limitation of this study is that the sample was from one Liberal Arts College and thus it was not typical of all college students. The findings may not be applicable to students who attend large institutions of higher learning.

Stacie and Anne (2013) conducted a study on the role of academic self-concept on academic achievement among first generation college students. The sample of the study had 167 participants from the public university in Southwestern United States of America. It was found that ethnicity and socioeconomic status were significant predictors of academic performance. Asians and Latinos were found to have higher mathematics self concept scores than African Americans. The study further demonstrated that higher verbal and mathematics self concept scores were related to better academic performance. This study, however, was conducted using respondents from first generation college students only, and the sample had no proportionality among ethnic groups (48-African American, 86-Latino, 14-White, and 19-Asians).

2.8.3 Personality and Other Personal Attributes

2.8.3.1 The Self-efficacy Phenomenon

Lent *et al*. (1997) defined self-efficacy as the level of confidence that a student felt regarding his or her ability to successfully complete academic tasks or reach selected academic milestones. On the other hand, Bandura (1997) defined self-efficacy as one's belief in one's capability to successfully complete a specific task related to a specific outcome. According to Bandura (1997), there are four main factors that influence self-efficacy, namely: a) personal experience of success after attempting a specific task; b) experiences of vicariousness after observing successes of peer group

members; c) acceptance of encouragement that a given task could be achieved; and d) physiological and emotional responses to a given event or experiences. Bandura (1997) argued that the level of confidence a student felt for achieving specific tasks was central to achieve better college educational outcomes.

In academic settings, academic self-efficacy is considered appropriate construct rather than general self-efficacy. According to Zajacova *et al*. (2005), academic self-efficacy refers to students' confidence in their ability to undertake academic tasks and attain desirable outcomes. Both general self-efficacy and academic self-efficacy behave differently when linked to other constructs. General self-efficacy measures, for example, were not found to be predictive of any college outcomes (Lindley and Borgen, 2002; Ferrari and Parker, 1992). However, several studies have shown that academic self-efficacy is positively related to college academic success (Multon *et al*., 1991; Hacket *et al*., 1992).

Schunk *et al*. (2008) noted that several studies have shown that students with high levels of academic self-efficacy display higher levels of motivation and skills, and earn higher grades than students with low levels of academic self-efficacy. Chemers *et al*. (2001) did a longitudinal study among first year college students to determine the effects of self-efficacy on academic performance and students' perceptions of new university. The study found that there was a statistically significant relationship between academic self-efficacy and academic performance. Moreover, students who attained high levels of academic self-efficacy were confident in dealing with other multiple college challenges (*ibid*).

Hacket *et al*. (1992) carried out a study that examined the extent to which gender, ethnicity, and social cognitive predicted academic achievement of college students studying engineering subjects. The study showed that perceived stress and academic self-efficacy predicted cumulative grade-point average, in which high academic performance was associated with low perceived stress and high academic self-efficacy. With a sample of 107 first year students from City University of New York, Zajacova *et al*. (2005) conducted a study to ascertain interactions of self-efficacy, stress and academic success. Among other findings, the study revealed academic self-efficacy was a consistent predictor of academic success than stress.

Multon *et al*. (1991) conducted a meta-analysis study of the relationship between academic self-efficacy and academic outcomes. The study found that students' academic self-efficacy was related to their academic performance at all educational levels such that the relationship was the strongest for college students. In a sample of 202 undergraduate students, Elias and MacDonald (2007) did a study to examine predictors of college academic performance with focus on students' prior achievement and academic self-efficacy.

The study revealed that both academic self-efficacy and high school grades predicted performance, with academic self-efficacy consisting higher proportion of the variance than high school grades. Lent and his colleagues (1984) reported that students who attained high self-efficacy for educational requirements excelled well in academic work, and demonstrated greater persistence than those who attained low self-efficacy. This view was also shared by Wood and Locke (1987) who noted that

higher self-efficacy was related to better academic performance for college students enrolled in psychology and management sciences.

Several other studies suggest positive implications for individuals with high levels of self-efficacy. Academic self-efficacy is a strong predictor of academic performance, and it can be comparable to academic competence or mental ability (Pajares and Miller, 1994; Pajares, 1996; Pajares and Kranzler, 1995). Similarly, research suggests that students with higher levels of self-efficacy excel well in academic work compared to students with lower levels of self-efficacy (See, for example, Pajares *et al*., 2000; Bandura, 1997; Britner and Pajares, 2001; Bandura *et al*., 2001). Self-efficacy may serve as a protective factor, and has also been linked to social outcomes in college among adolescents.

DeWitz and Walsh (2002) conducted a study to examine the relationship between college satisfaction and perceived self-efficacy. Using a sample of 312 undergraduates from a large Midwestern University, the results of the study indicated that perceived college self-efficacy was related to overall college satisfaction. Pajares and Schunk (2001), for example, reported that high levels of self-efficacy were associated with desirable behavioral and academic outcomes. This view was presented before by Bandura *et al*. (1996) who revealed that students with higher levels of self-efficacy were less vulnerable to depression, which in turn was associated with better academic outcomes. Moreover, Muris (2002) found a positive association between lower levels of self-efficacy and mental health among the Belgium adolescent population.

2.8.3.2 Locus of Control and Academic Performance

An innately individual characteristic possessed by each person, refers to perception of causality of elements in one's environment (Mitchell, 1992). If people believe outcomes are contingent on their own behavior, they are said to have an internal locus of control. On the contrary, people who believe that independent factors beyond their control are the determinant agents of their outcomes affecting their lives have an external locus of control. Several researchers support the argument that there is positive association between locus of control and academic performance (Rea, 1991; Mitchell, 1992; Fontana *et al*., 1986).

Rittman (1999) conducted a study to determine psychological factors related to academic performance and retention in first year college students. The author (*ibid*) found that Scholastic Aptitude Test (SAT)/American College Test (ACT) and psychological factors (locus of control, optimism, need for achievement, self-esteem) predicted academic performance. However, one of the limitations of the study is the fact that it was conducted among first year students only leaving other cohorts. Gifford *et al*., (2006) also found that college students with internal locus of control achieved higher end of first year cumulative GPA.

Zimmerman and Bandura (1994) had the same idea before when they reported that psychosocial factors such as locus of control and self-efficacy were important predictors of academic performance of college students. Agnew *et al*., (1993) conducted a study to determine how locus of control is related to agriculture students' academic achievement. The study revealed that students with an external

locus of control had lower academic achievement, and that the higher degree of control over outcomes perceived by internals resulted in more appropriate academic behavior and higher academic achievement (*ibid*).

2.8.4 Students' Approach to Learning and Learning Styles

Learning styles have been found to have a positive significant relationship with college students' academic achievement (Witkin, 1973; Schroeder, 1993; Cano, 1999; Torres, 1993; Claxton and Murrell, 1987). Gregorc (1979) described a person's learning style to comprise of specific behaviors which serve as indicators of how an individual learns, and his/her adaptation to the learning environment. Richardson *et al*. (2012) noted that the extent to which students employ learning strategies may moderate the effects of dispositional characteristics, and psychosocial contextual influences on academic performance.

Likewise, Schroeder (1993) asserted that being aware and employing various learning styles could improve curricula, the teaching and learning process, and eventually attain good educational outcomes. Three broad approaches to learning have been identified, namely: deep, surface, and strategic (Biggs, 1987; Entwistle *et al*., 1979). Figure 2.13 provides summary on the differences among the approaches. Furthermore, Guild and Garger (1985) mentioned field-dependent and field independent as the most researched and applied learning styles. Figure 2.14 summarizes the differences between the two styles, as articulated by Witkin *et al*. (1977).

Deep	Surface	Strategic
• Characterized by learning strategies such as critical evaluation, information syntheses. • Individuals tend to be more intrinsically motivated.	• Characterized by learning strategies such as memorization, and rehearsal. • Individuals tend to be more extrinsically motivated.	• Tend to use both deep and surface approaches depending on the nature of the task. • Assumed to promote optimal learning.

Figure 2.13: Deep, Surface, and Strategic Learning Approaches

Field-Dependent Learning Style	Field-Independent Learning Style
• Individuals tend to have a global perception. • Have difficulty in solving problems. • Are more attuned to their social environment. • Learn better when concepts are humanized, and tend to enjoy a spectator approach to learning. • Individuals tend to be more extrinsically motivated.	• Tend to view concepts more analytically, and find it easier to solve problems. • Are more likely to favor learning activities that require individual effort and participation. • Prefer to develop own structure and organization for learning. • Are less receptive to social reinforcement. • Individuals tend to be more intrinsically motivated.

Figure 2.14: Differences Between Field-Dependent and Field-Independent Learning Styles

Omari (2013) noted that learning styles, conscious or unconscious, take one or a combination of the following:

a) *Visual learners*: They learn by reading and using visual aids, add colors and visual triggers.

b) *Auditory learners*: Learners concentrate on going for lectures and discussions, turn key words into songs, funny voices, listen to others.

c) *Tactile learners-kinesthetic*: These build a physical dimension into learning such as moving about as they study, moving hands and legs with each important point learnt.

d) *Mental learning*: Involves reflections, imaginations, intuition, metacognitions, meaning thinking how to think, and thinking about thinking.

In the last three decades the concept of active learning was introduced. According to Chickering and Gamson (1987), active learning takes place when students discuss about what is being taught in class, relate it to past experiences, and get an opportunity to apply what they have learned to their normal lives. In active learning, students integrate new knowledge with their existing knowledge. The ultimate goal of active learning is to get students involved in the learning environment so that they can learn and acquire skills needed in their life (Chickering and Gamson, 1987).

According to Omari (2014), active or efficient learning means: break down what you want to learn to the essentials only; using what one has learnt for discussion with others; make sample examination questions at discussion points and tackle them; and design revision games for each important materials. Similarly, Bonwell and Einson (1991) associated the following characteristics with active learning: students are actively involved in learning; emphasis is placed on developing students' skills rather than transmitting information; students are engaged in activities related to the subject or course; and emphasis is placed on students' exploration of their own attitudes and values.

2.8.5 Motivational Factors and Academic Performance

Need for achievement is central to most motivational theories, and it has led to numerous studies examining motivation as both a predictor of job performance and academic performance (Huang, 2011). According to Deci and Ryan (2000), human

beings have an innate desire for integration, and want to be authentic and experience themselves as their own locus of control. People need to be free from control and experience their own human authorship, a synonym for their own determination. Deci and Ryan (2000) propounded the Self-determination theory which is about people's motivation to act on their own behalves. In a sense, self-determination theory is a theory about why people do the things they do.

According to self-determination theory, motivation exists on a continuum, from amotivation through stages of extrinsic motivation, and finally to intrinsic motivation. Intrinsic motivation, or the urge to act out of sincere interest or inherent satisfaction, is the condition of being fully self-determined, or feelings of competence and accomplishment. Extrinsically motivated behaviors encompass reinforcers, such as rewards and penalties – doing an activity to satisfy an external demand. Deci and Ryan (2000) theorized that individuals who are amotivated are not able to recognize outcomes as being contingent on their own behavior. Individuals who are amotivated, are neither intrinsically nor extrinsically motivated.

Several studies in academic domain have established positive relationship between achievement motivation and students' academic performance (See, for example, Henderlong and Lepper, 1997; Reeve, 2005; Robbins *et al*. 2004; Tella, 2007; Lepper *et al*., 2005). Mitchell (1992) examined the relationship between intrinsic and extrinsic motivation, and self-assessment of motivation. Mitchell (1992) found that intrinsic motivation was a positive predictor of academic performance than extrinsic motivation. In a sample of 797 school children from two public school districts in San Francisco, California (USA), Lepper and colleagues (2005) conducted a study to

examine the age differences in motivation and its relationship to academic achievement.

Findings from the study revealed that there was a significant positive correlation between overall academic performance and intrinsic motivation. The study also showed that there was a significant negative correlation between academic performance and extrinsic motivation. Although the study was conducted among school children, it has nonetheless proved that motivation is one of the predictors of academic performance. This trend is also manifested in colleges. Lievens *et al*. (2009) revealed that achievement motivation was a strong predictor of academic success among medical school students.

2.8.6 Institutional Factors and Students' Involvement in College Life

Overall campus climate plays an important role in assisting students to persist and eventually attain desirable educational outcomes. Chavous (2005) refers to institutional climate as "a psychologically meaningful representation of the institution's environment" (p. 239). On the other hand, Edman and Brazil (2009), and Davis (1994) conceptualized institutional climate as the extent to which students feel comfortable within the campus, and availability of social support (received or perceived) to students from their colleagues and college staff. According to Chavous (2005), campus climate contains socialization and interactional processes that significantly contribute to an individual's ability to adjust both academically and socially. Wang (2009) noted that persistence has been associated with the college environment; and also was related to a student's feelings of comfort at the college (See also Gloria and Ho, 2003).

Tinto (1975) asserted that the college environment is a microsystem that includes students' interactions with the faculty and other college staff, relatedness to friends, belonging on campus, and the students' participation in extracurricular activities. The college microsystem has been linked to successful academic achievement, social adjustment, and persistence (*ibid*). Pittman and Richmond (2008) investigated the association between sense of college belonging, quality of friendships, and the psychological transition into college at two points during their freshman year. The study found that positive sense of belonging in the college led to increases in scholastic competence and social acceptance.

The study also found that positive changes in friendship quality and university belonging led to reduced psychological disorders. This view is partly shared by Fike and Fike (2008) who noted that students' support services involving regular interactions with academic advisors have positive impacts to students' persistence and subsequent academic success. According to Astin (1991), environmental variables represent aspects of involvement in the educational experience. Both Tinto (1993) and Astin (1993) agree that the environment has both the academic and social components, and Tinto further noted that these components have both formal and informal configurations.

According to Astin (1984, 1999), the literature on student involvement includes the following as important environmental variables: campus residence and co-curricular activities, employment, interactions with faculty and peers. The following sections discuss two models that focus on students' involvement, interactions, and institutional factors, delineating their effects on students' persistence and educational

outcomes.

2.8.6.1 Model of Influences of Student Learning and Persistence

Terenzini and colleagues (1995) developed a model of influences of student learning and persistence that shows the relationship between institutional context and student learning outcomes as a reciprocal causation. The model takes into account multiple factors that influence students' learning and subsequent outcomes as shown in Figure 2.15. With different personal traits and from diverse backgrounds, the student joins the college only to be shaped by the following factors: curricular experiences, classroom experiences, and out-of-class experiences. Dotted arrows indicate reciprocal causation.

Curricular experiences consists of students' general education coursework, their choice(s) of an academic major field, the nature and extent of students' socialization to that field, and degree of exposure to other academic experiences. Classroom experiences include (but not limited to) the kinds of pedagogies to which students are exposed to, the amount of writing they do, the nature and frequency of the feedback they receive from faculty members, and their instructors' pedagogical skills. Out-of-class experiences include such considerations like where students live, involvement in various extra-curricular activities, hours spent studying, and family support. According to Terenzini *et al*., (1995) Out-of-class impacts are substantial, and they shape students' cognitive, psychosocial, attitudinal, and occupational learning outcomes in subtle and complex ways.

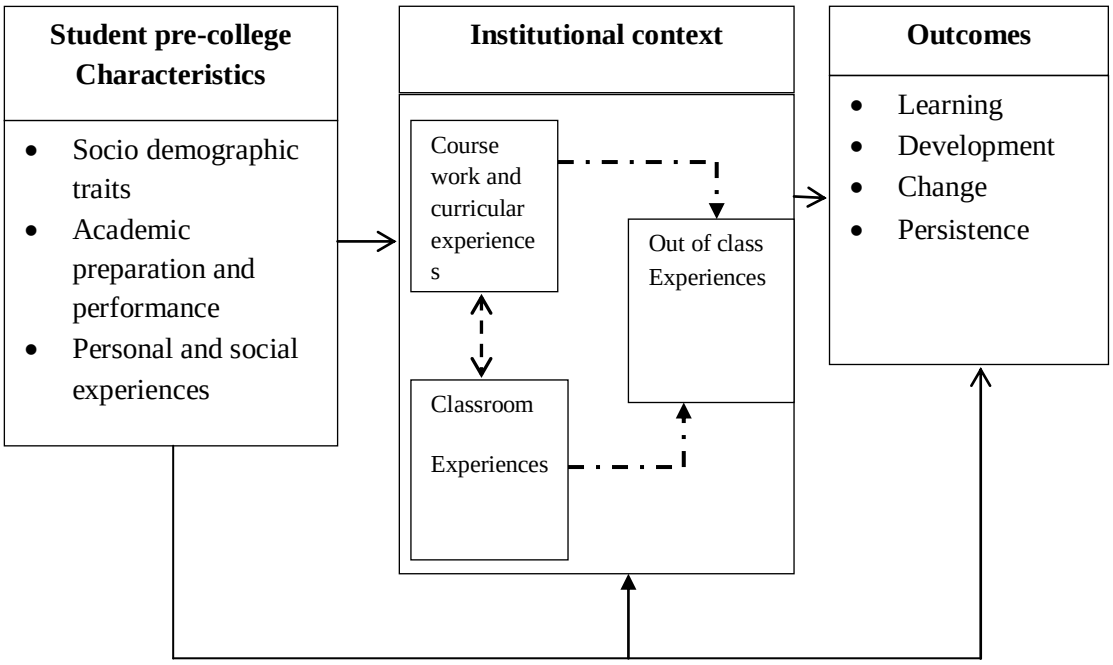

Figure 2.15: Terenzini et al. (1995) Model of Influences of Student Learning and Persistence

2.8.6.2 Conceptual Model for Research on Student-Faculty Informal Contact

Pascarella (1980) devised a conceptual model for research on student-faculty informal contact that sought "to understand the unique influence of student-faculty non-classroom contact on educational outcomes and institutional persistence" (p. 568). He theorized that informal contacts between students and faculty, both within and outside the classroom, are of greatest importance to the student's academic success. As depicted in Figure 2.16, the model takes into account student's background characteristics, college experience, and institutional factors.

The model theorizes that students bring with them individual differences based on their unique backgrounds to interact with the institutional environment. The individual differences among others, include: aptitudes, interests, family

background, prior achievement, and openness to change. These different individual characteristics of students affect the college environment, and therefore will influence the students' social, academic, and extracurricular experiences. Experiences influence the amount of informal faculty contact, which together lead to career aspirations, intellectual and personal development, educational outcomes. The educational outcomes directly determine the students' decision to persist or withdraw.

Pascarella (1980) further acknowledges that the students' experiences influence the amount of contact with faculty, and vice versa. Institutional factors such as culture, size, reward structure, policies, and advising programs contribute to successful student-faculty interactions. Pascarella's (1980) model was developed to explain student-faculty informal interactions and their subsequent impacts on persistence, and educational outcomes. In this study, the model brings to light the importance students' adjustment and provision of social support that are all embedded in student-faculty informal interactions.

Students' interactions with peers and faculty have been identified as predictors of college students' academic success (Carini *et al*. 2006; Astin, 1993; Pascarella and Terenzini, 2005). Research suggests that the more connections and involvement a student has, the greater the chance to persist, and attain desirable educational outcomes (Astin, 1984; Cohen and Brawer, 2008; Hunter, 2006; Wang, 2009). Campus involvement is related to increased intellectual development and achievement (Baxter Magolda, 1992; Fitch, 1991).

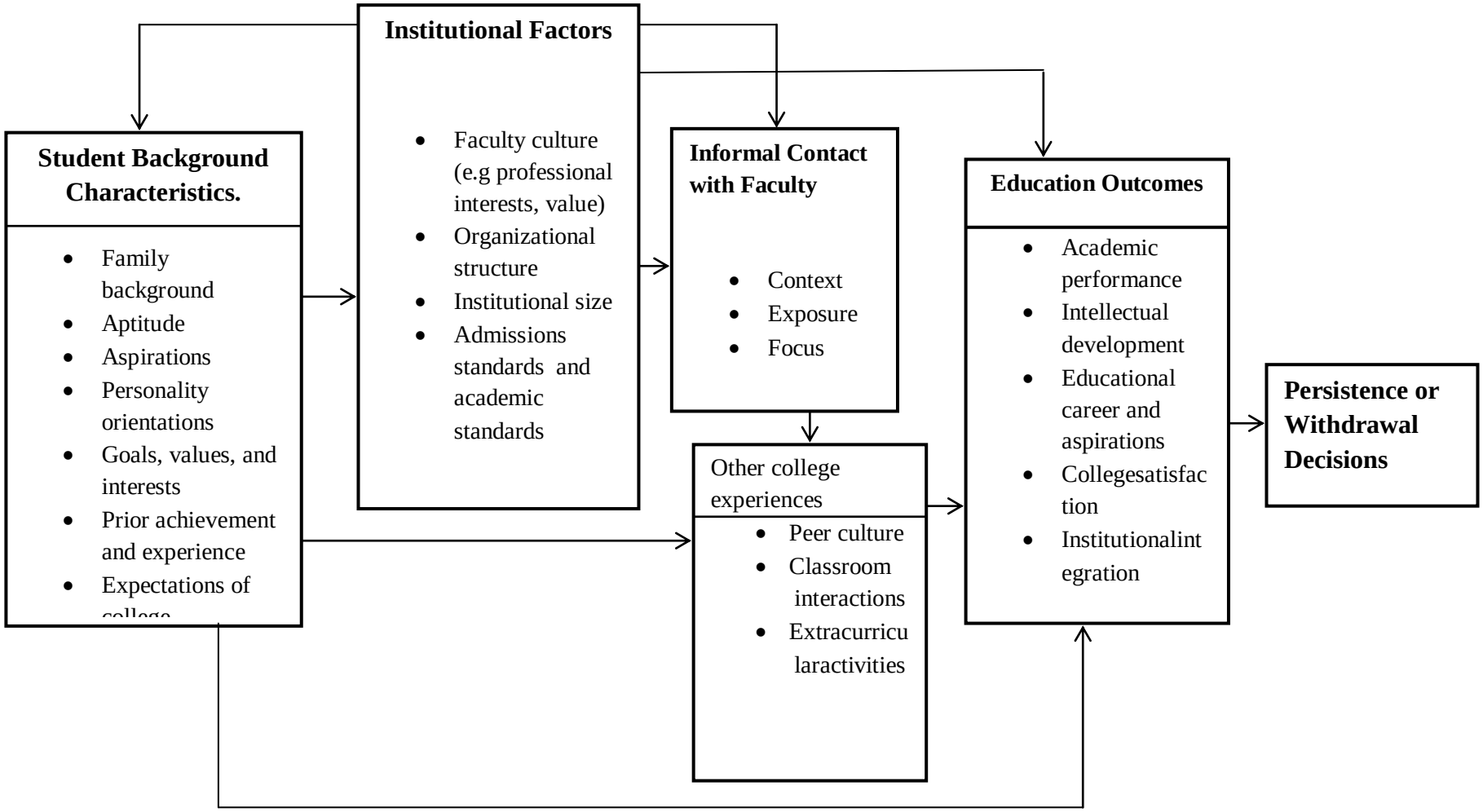

Figure 2.16: Conceptual Model for Research on Student-Faculty Informal Contact

Astin (1984) asserted when students are involved in both the academic and social aspects of the college environment, they are likely to excel well in academics. Students who are involved devote significant energy to academics, spend time on campus, participate actively in student organizations and activities, and interact often with faculty (*ibid*). Baxter Magolda (1992) conducted a longitudinal study to ascertain the extent to which a number of factors contributed to students' intellectual development. Among other findings, Baxter Magolda (1992) reported that campus involvement was positively related to students' intellectual development.

Goodenow (1993) conducted a study to examine classroom belonging and its relationship to motivation and achievement among adolescents. Findings from the study showed that the quality of student-teacher relationships, based on academic and emotional support greatly contributed to student's sense of belonging to school

The study sample had 627 students from 14 different institutions. Using scatter plot analysis, the study indicated that the relationship between academic and student involvement is linear and positive. The findings revealed that students with high social involvement reported success in academic, communication skills, self-confidence, and interpersonal skills. Huang and Chang's work examined Taiwanese students, and their findings may not be generalizable to students in other parts of the world. The study included only comparison of mean differences and no analyses to determine prediction or even significance of difference. Despite these limitations, the study highlights the importance of students' interactions with both the faculty and peers to bolster learning and personal growth.

2.9 Synthesis and Knowledge Gap

The review of literature has provided a precise discussion on variables of interest in this study. However there are several gaps in the literature remaining to be examined. Firstly, majority of studies on adjustment, social support, and their relationship to academic performance in colleges have been conducted in developed countries. The search made by the researcher has not found any study in East Africa and Tanzania in particular, that has addressed the relationships between adjustment processes, social support, and academic performance among college students. This study addressed this gap in a Tanzanian context.

Secondly, most of the studies on adjustment, social support, and academic performance were done among first year college students, leaving out other groups of college students. Thirdly, the rapid expansion of higher education and increased students' enrollments in the higher learning institutions calls for scholar attention to investigate students' social support, adjustment processes and how they relate to academic performance. Thus, this study offers a unique opportunity to investigate how social support, social adjustment, and academic adjustment relate to college students' academic performance. The findings from this study as well as recommendations is hoped to bridge the research gap.

2.10 Chapter Summary

This chapter has explored the review of literature that relate to this study. It has given the theoretical literature on study variables, namely: social support, social adjustment, academic adjustment, and academic performance. The review of

literature attempted to discuss some of the prominent models related to the variables of interest in this study, and subsequent empirical studies.

CHAPTER THREE

3.0 RESEARCH METHODS AND PROCEDURES

3.1 Introduction to the Chapter

This chapter presents the research methods and procedures used in this study. It describes the area of study, study design, target population, sample and sample selection. The chapter also covers the instrumentation for data collection, data collection procedures, as well as ethical issues considerations.

3.2 Area of the Study

This study was conducted at Dar es Salaam in two non university higher learning technical institutions. These were College of Business Education (CBE) and the Institute of Finance Management (IFM). The two institutions were the focus of the study because of similarities in academic programs they offer, and their proximity, offering a rich inner city ecology for the study. Thus, findings from this study may give a clear picture of the complex relationship among variables of study regarding college students in Tanzania.

The College of Business Education was established in 1965. By the time of data collection, the CBE offered courses in accountancy, business administration, procurement and supply management, marketing, and legal, industrial, and scientific metrology. At the time of study, the college had four campuses, namely, Dar es Salaam, Dodoma, Mwanza and Mbeya. The College of Business Education (Dar es Salaam Campus) was chosen because it is the oldest and largest of all CBE campuses.

The Institute of Finance Management offers programs mostly similar to the College of Business Education. It was established in 1972 to provide training, research and consultancy services in the fields of banking, insurance, social protection, taxation, accountancy and related disciplines. The Institute has four faculties that award certificates, diplomas, degrees, postgraduate diplomas, and master degrees. It has another campus in Mwanza city. Dar es Salaam was chosen because it hosts the two institutions (the College of Business Education and the Institute of Finance Management), offering comparable non residential programs and thus very relevant to the subject matter of this study. According to the 2012 Population and Housing Census (PHC) carried out on 26th August, 2012, Dar es Salaam city had a population of 4,364,541 (URT, 2013).

3.3 The Study Paradigm

Paradigm refers to the modes of thinking about the conduct of research on any social reality (Omari, 2011). According to Mc Burney and White (2007), paradigm consists of "a set of laws, theories, methods, and applications that form a scientific research tradition" (p. 24). This study embraced the quantitative research approach, focusing on testing of research hypotheses. Forzano and Gravetter (2003) asserted that quantitative research approach is characterized both by its focus on producing quantifiable data and by its emphasis on a research process which results in numbers that can be analyzed using statistical packages. The study used rating scales that utilize students' self-reported responses about attitudes, opinions, personal characteristics and behaviors. Since this study focused on testing specific hypotheses, the quantitative research approach was deemed appropriate to be used.

Informal qualitative procedures such as personal interviews with staff working in the department/directorate of student affairs and services were also used to enrich the data. Cohen *et al.* (2007:141) asserted that the use of two or more methods of data collection "attempt to map out, or explain fully, the richness and complexity of human behavior by studying it from more than one standpoint". In the present study, the use of personal interviews were used to increase the depth of the researcher's understanding and accuracy of findings emanating from testing the research hypotheses.

3.4 The Study Design

Research design is a logical and systematic plan for directing a research study (Krishnaswami and Ranganatham, 1983). The research design greatly influences the type and quality of the research problem under scrutiny (Pervez and Kjell, 2005). Since this study intended to investigate the relationships among variables, the correlational design was adopted. According to Pervez and Kjell (2005), correlational design establishes relationships that exist between variables, and describe the direction and magnitude of the relationships. Correlational research measures two variables as they exist naturally, with no attempt to control, manipulate, or interfere with them (Forzano and Gravetter, 2003). Thus, there is a good reason to expect that the measurement and the relationships accurately reflect the natural events being examined (*ibid*).

3.5 The Target Population

The target population of this study was 11,728 participants. These included all undergraduate students, and all staff working in the department/directorate of student

affairs and services at the College of Business Education (Dar es Salaam Campus) and the Institute of Finance Management (Dar es Salaam Campus). Tables 3.1 and 3.2 show the student target populations from the two institutions, enrolled to pursue a number of courses.

Staff working in the department/directorate of student affairs and services at the two institutions formed part of the target population of this study. These were involved in delivery of necessary welfare services to students, such as counseling, health and catering services, sports and games, accommodation matters, and loans/financial aid. Table 3.3 shows the staff target population from the two institutions.

Table 3.1: The Student Target Population for the Study (College of Business Education – DSM Campus)

College of Business Education (DSM Campus)	Category (Programme)	Sex		Total
		Male	Female	
	Certificate students	1,378	1,371	2,749
	Diploma students	914	941	1,855
	Bachelor degree students	530	465	995
Grand Total		**2,822**	**2,777**	**5,599**

Source: CBE, Directorate of Studies: Fourth Quarter Progress Report (2013)

Table 3.2: The Student Target Population for the Study (Institute of Finance Management)

Institute of Finance Management	Category (Programme)	Sex		Total
		Male	Female	
	Certificate students	126	95	221
	Diploma students	142	150	292
	Bachelor degree students	3,628	1,976	5,604
Grand Total		**3,896**	**2,221**	**6,117**

Source: Institute of Finance Management, Directorate of Student Services (2013)

Table 3.3: Staff Interviewed in the Two Colleges

	Rank/Category	Number		Total
		Male	Female	
College of Business Education (DSM Campus)	Assistant Dean of Students	1	-	1
	Senior Warden/Counselor	-	1	1
	Warden	-	2	2
	Secretary	-	1	1
Institute of Finance Management	Dean of Students	1	-	1
	Counseling Manager	1	-	1
	Wardens	1	3	4
	Secretary	-	1	1
Grand Total		**4**	**8**	**12**

Source: CBE, Directorate of Human Resources: Fourth Quarter Progress Report (2013) Institute of Finance Management, Directorate of Student Services (2013)

By the time of data collection, both the College of Business Education and the Institute of Finance Management offered several business courses and related programs. For example, the Institute of Finance Management offered several undergraduate courses in accountancy, banking and finance, insurance and risk amangement, and information technology, to mention a few. Likewise, the College of Business Education offered several undergraduate courses in business studies, including accountancy, marketing, business administration, and procurement and supplies. Thus, the student populations had common characteristics, including age and their entry qualifications. Tables 3.4 and 3.5. presents the programs offered in the two colleges.

Table 3.4: Programs and Courses Offered at the College of Business Education

S/N	Program	Specialization
1.	Postgraduate diploma	Marketing management
		Business administration
		Human resources management
		International business management
		Investment management
		Accountancy
		Financial management
		Procurement and supplies
2.	Bachelor degree	Marketing
		Business administration
		Accountancy
		Procurement and supplies
		Industrial and legal metrology
3.	Diploma	Marketing
		Business administration
		Accountancy
		Procurement and supplies
		Industrial and legal metrology
		Information and communication technology
4.	Certificate	Marketing
		Business administration
		Accountancy
		Procurement and supplies
		Industrial and legal metrology
		Information and communication technology

Source: College of Business Education, Prospectus, (2014)

Table 3.5: Programs and Courses Offered at the Institute of Finance Management

S/N	Program	Specialization
1.	Masters	Finance and investment
		Accounting and finance
		Finance
		Information technology and management
		Human resource management
		International business
2.	Postgraduate diploma	Accountancy
		Business administration
		Financial management
		Human resource
		Insurance and risk management
		Tax management
3.	Bachelor degree	Accounting
		Banking and finance
		Computer science
		Taxation
		Insurance and risk management
		Information technology
		Social protection
4.	Diploma	Accounting
		Banking and finance
		Computer science
		Insurance and risk management
		Information technology
		Taxation
		Social protection
5.	Certificate	Accounting
		Banking and finance
		Computing and information technology
		Insurance and social protection
		Taxation

Source: Institute of Finance Management, Prospectus (2014)

3.6 Sample Selection Procedures

The sample for this study was drawn from the College of Business Education (Dar es Salaam Campus) and the Institute of Finance Management. Purposive sampling was used to select respondents that the researcher considered most appropriate for the study. According to Shaughnessy *et al*. (2000), purposive sampling enables the

researcher to select elements to be included in the study on the basis of their characteristics. Similarly, Merriam (1998:61) asserted that "purposive sampling is based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned".

From the list of programs, bachelor of accountancy was offered in all institutions. Second year students pursuing bachelor of accountancy were purposely selected to participate in this study because they had stayed at the college for one academic year, and made efforts to adjust to the college environment. These students were familiar with their respective campuses and had a better knowledge of the resources available to them. In addition, second year students also had their first year examination results that were used by the researcher to relate other variables to academic performance. At the time of study, the College of Business Education had 159 second year students pursuing bachelor of accountancy as shown in Table 3.6. Similarly, the number of students pursuing bachelor of accountancy in second year at the Institute of Finance Management was 683 as shown in Table 3.7.

Table 3.6: Second Year Students Pursuing Bachelor of Accountancy at CBE by Sex and Session

Institution	**Session**	**Male**	**Female**	**Total**
College of Business Education	Morning	39	23	62
	Evening	48	49	97
Total		**87**	**72**	**159**

Source: College of Business Education, Office of the Registrar (2014)

Table 3.7: Second Year Students Pursuing Bachelor of Accountancy at IFM by Sex and Streams

Institution	Stream	Male	Female	Total
Institute of Finance Management	A	168	78	246
	B	154	72	226
	C	146	65	211
Total	**A, B, and C**	**468**	**215**	**683**

Source: Institute of Finance Management, Directorate of Student Services (2014)

3.6.1 Sample Size

As reported in Tables 3.6 and 3.7, the number of second year students pursuing bachelor of accountancy in second year at the Institute of Finance Management was higher (four times) than their counterpart from the College of Business Education. To ensure fair presentation of students from the two institutions, a purposive sampling was used to select 405 students. This included all 159 students from College of Business Education, and 246 students from stream A at the Institute of Finance Management. Also, all 12 staff working in the department/directorate of student affairs and services were included in the sample that brought the total number of respondents to 417. Through interviews, the researcher aimed at exploring staff perspectives regarding students' social support and adjustment to college environment. The sample of the study is depicted in Table 3.8.

Table 3.8: The Sample of the Study

Institution	Students		Staff		Total
	Male	Female	Male	Female	
College of Business Education (CBE)	87	72	1	4	164
Institute of Finance Management (IFM)	168	78	3	4	253
Grand Total	**255**	**150**	**4**	**8**	**417**

3.7 Instrumentation for Data Collection

This study used rating scales and interviews to tap information on the relationships between social support, social adjustment, academic adjustment and academic performance among the college students in Tanzania. Part of each rating scale was a questionnaire on respondents' demographic characteristics such as gender, age, marital status, and parents' level of education (Appendix I). Academic performance was measured by Grade Point Average (GPA) for second year students' examination results. Astin (1982) defined Grade Point Average as "a measurement of achievement; an average derived from a system in which familiar letter grades (A, B, C, and so forth) are assigned numbers, and the numbers averaged" (p.3). Grade Point Average has been the most commonly used measure of students' academic success. Information regarding respondents' grade point averages was sought from the Offices of the Registrars from each institution.

Personal interviews were used in this study to collect information from 12 staff working in the department/directorate of student affairs and services in the two institutions. Personal interviews allowed the collection of data and more information in greater depth regarding college students' social support as well as social and academic adjustment. Interviews also permitted greater flexibility and an opportunity for follow-up questions, enriching the discussion of findings from the research hypothesis tested. A list of lead questions which were used for interview is attached as Appendix V.

Three rating scales were used in this study, namely: Social Support Scale (Appendix II), Social Adjustment Scale (Appendix III), and the Academic Adjustment Scale

(Appendix IV). A rating scale question requires a participant to respond by selecting a response on a predetermined scale. According to McBurney and White (2007), rating scales are widely used in research because they can easily measure direction, and magnitude of the opinions of the respondents. Forzano and Gravetter (2003) noted that the primary advantage of self-report rating scales is that they can easily assess a construct, and that "each individual is in unique position of knowledge and awareness" (p. 97).

3.7.1 Social Support Scale

The social support scale of this study adopted items from both the Multidimensional Scale of Perceived Social Support and the Social Provisions Scale. The Multidimensional Scale of Perceived Social Support is a brief, easy to administer self report questionnaire which contains twelve items rated on a seven-point Likert-type scale with scores ranging from '*very strongly disagree'* (1) to '*very strongly agree'* (7). The Multidimensional Scale of Perceived Social Support has proven to be psychometrically sound in diverse samples and to have good internal reliability and test-retest reliability (Dahlem et al., 1991; Bruwer et al., 2008). Ng et al. (2013), for example, translated and validated the Multidimensional Scale of Perceived Social Support into the Malay version and found that it possessed high internal consistency.

The Social Provisions Scale was developed by Russell and Cutrona (1984) to assess provisions of social relationships described by Weiss (1974). According to Weiss (1974), such provisions reflect what individuals receive from relationships with other people. The six provisions include: guidance (advice or information), reliable alliance (assurance that others can be counted on times of stress), reassurance of

worth (recognition of one's competence), attachment (emotional closeness), social integration (a sense of belonging to a group of friends), and opportunity for nurturance (providing assistance to others) (*ibid*). The Social Provisions Scale is a reliable and valid measure of social support constructed by Russell and Cutrona (1984).

The social support scale for this study comprised 25 items, each rated on a 4-point Likert-type scale, with higher scores reflecting greater social support (Appendix II). In each item, respondents were asked to rate their level of agreement or disagreement, indicating "strongly agree", or "agree", or "disagree", or "strongly disagree". Consequently, a respondent scored 4 if he/she indicated "strongly agree", and would have a total score of 100 to all 25 items. The social support scale for this study yielded an alpha coefficient of 0.755, which is reliable and acceptable.

3.7.2 Social Adjustment and Academic Adjustment Scales

This study adopted items from the Student Adaptation to College Questionnaire (SACQ) to measure students' social and academic adjustment. Developed by Baker and Sirk (1984a, 1989), the Student Adaptation to College Questionnaire (SACQ) is a psycho-metrically tested instrument used in many universities and colleges to measure how well students adjust to college experience (Baker and Siryk, 1989). The Student Adaptation to College Questionnaire (SACQ) appears to be the mostly widely used instrument to measure the adjustment process (Hurtado *et. al*., 1996). Using two independent samples, Baker and Siryk (1986) reported coefficient alphas for the Student Adaptation to College Questionnaire to be 0.91 and 0.92. The subscales of the instrument yielded alpha coefficients ranging from 0.79 to 0.92.

This study adopted items from both academic adjustment and social adjustment subscales to construct the academic adjustment scale and social adjustment scale respectively. Each scale comprised 25 items, each rated on a 4-point Likert-type scale, with higher scores reflecting academic/social adjustment (Appendices III and IV). Both scales required respondents to rate their level of agreement or disagreement, indicating "very true", or "somehow true", or "not true", or "not true at all".

3.8 Validity and Reliability of Instruments

3.8.1 Validity of Instruments

Mc Burney and White (2007) defined validity as an indication of accuracy in terms of the extent to which a research conclusion corresponds with reality. According to Cohen *et al*. (2007), validity is essentially a demonstration that a particular instrument in fact measures what it purports to measure. In order to get valid data, a pilot study of 50 college students was conducted to test the validity of rating scales. A pilot study as "a small replica of the main study" (Krishnaswami and Ranganatham, 1983), was hoped to provide a better knowledge of the problem under study and its dimensions. In the light of the outcome of the pilot study, items on the three rating scales were modified accordingly. With personal interviews, efforts were made to eliminate disingenuous questions and identifying key informants to obtain information sought.

3.8.2 Reliability of Instruments

Reliability is the property of consistency of a measurement that gives the same result on different occasions (Mc Burney and White, 2007). According to Pervez and Kjell,

(2005) reliability is the extent to which an instrument or any measurement procedure produces the same scores over time or across raters. In this study, the most popular method of testing for internal consistency, coefficient alpha (Cronbach alpha), was used to measure consistency within the instrument and determine how well a set of items measured a particular behavior or characteristics within the test. Cronbach's alpha produces values between 0 and 1.00, with a higher value indicating a higher degree of internal consistency or reliability. Table 3.9 presents the guidelines for interpreting the alpha coefficient, indicating whether the reliability is low or high. The social support scale for this study yielded an alpha coefficient of 0.755, which is reliable and acceptable. The Cronbach alpha calculated on the academic adjustment scale of this study was 0.762. Similarly, the social adjustment scale of this study yielded an alpha coefficient of 0.790.

Table 3.9: Guidelines for Interpreting the Alpha Coefficient

Range of Values (Alpha Coefficient)	Guidelines for Interpreting
>0.90	Very highly reliable
0.80 – 0.90	Highly reliable
0.70 – 0.79	Reliable
0.60 – 0.69	Marginal/minimally reliable
<0.60	Unacceptable low reliability

Source: Adopted from Cohen *et al*. (2007)

3.9 Procedures for Data Collection in the Field

The researcher sought permission from both the College of Business Education Management and the Institute of Finance Management (IFM) to enable him conduct the study and solicited consent from the respondents (second year – bachelor degree students). Second year students were used in the study because they had academic

records attained during their first year of study. During their one-year stay at the College, second year students had a lot to tell about social support and adjustment. The sampled students were required to reveal their identity while filling in the questionnaire for the purposes of making linkages with academic records obtained from the Office of the Registrar. To begin with, respondents were given questionnaire to fill in their demographic data. The three scales (Social Support, Academic Adjustment and Social Adjustment Scales) were administered. Then, the researcher asked the Office of the Registrar to provide information on respondents' grade point averages. Finally, staff were interviewed. After each interview, notes were reviewed to prepare a written account for each interviewee.

3.10 Ethical Issues Considered

Ethical concerns are crucial when planning, conducting, and evaluating a research study. According to Neuman (2012), social research should have a clear moral and professional obligation to behave in an ethical manner at all times, and that researchers "must balance two values: the pursuit of knowledge and the rights of research participants or of others in society" (p. 53). Regulations governing the conduct of research in the country were observed. Research clearance was secured from the Open University of Tanzania (See Appendix VII). Then, institutional consent was sought from both the College of Business Education and the Institute of Finance Management. The research clearance enabled the researcher to access the two institutions, gained an official permission to undertake the study. According to Cohen *et al*. (2007), permission to access the organization where the research is to be conducted offers an opportunity for researchers to "present their credentials as

serious investigators and establish their own ethical position with respect to their proposed research" (p. 55).

Informed consent was sought. Informed consent entails "procedures in which individuals choose whether to participate in an investigation after being informed of the facts that would be likely to influence their decisions" (Diener and Crandall, 1978). Before data collection, the researcher informed participants about the nature of the research as well as the social value and possible benefits from the study. This enabled participants to make rational and informed decision to participate or not to participate in the study. A fair explanation of procedures to be followed and their purposes were outlined to participants. Moreover, participants were told that their participation was voluntary, and if they felt to decline to participate or leave the study at any time there were no negative consequences. After informed consent was secured, the researcher told participants of their rights to confidentiality. Participants were told that they would remain anonymous throughout the research process. Information from participants was accessed in a proper and dignified way. Privacy and interests of participants were respected as well.

3.11 Chapter Summary

The present chapter has dealt with the research methods and procedures that were used to collect and analyze data from the field. Specifically, the chapter focused on study design, area of study, population, sample and sampling techniques. The subsequent sections of this chapter covered instruments of data collection, procedures for data collection in the field, and finally, ethical issues. The next chapter deals with data analysis and presentation.

CHAPTER FOUR

4.0 DATA ANALYSIS AND PRESENTATION

4.1 Introduction to the Chapter

This study aimed at investigating the nature of the relationship between social support, social adjustment, academic adjustment, and academic performance among college students in Tanzania. This chapter analyses and presents the results from the gathered information. It provides the descriptive statistics of the sample, and the study variables. This chapter also presents and discusses the scores of respondents on rating scales, and finally it reports the testing of hypotheses of the study.

Accuracy of data entry and statistical analysis was done using the Statistical Package for the Social Sciences (SPSS), Version 17.0, a software package used for statistical analysis. The SPSS software assisted the researcher to generate frequencies, percentages and tabulations for descriptive purposes. Using inferential statistics techniques, the software enabled the researcher to test the hypotheses of this study. Data collected from personal interviews was organized, and separate folder for each participant was prepared. Data was edited for clarity. Then, from the edited data, the researcher generated categories, themes and patterns. Finally, major themes were identified, showing how they related to other relevant ideas leading to alternative explanations of the data.

4.2 Sample Characteristics

The sample of this study constituted 417 students and staff from the College of Business Education and the Institute of Finance Management in Dar es Salaam City. The students' characteristics variables used in this study were: gender, age, and

marital status. In addition to standard demographic information, respondents were asked to indicate their registration numbers, and provide information regarding their parents' level of education. Respondents were asked to indicate their registration numbers to assist the researcher access their first year examinations results. Through the Registrars' offices, the researcher had an opportunity to access the respondents' grade point averages.

4.2.1 Sex of Respondents

As reported before, the sample of this study comprised 405 students and 12 staff from both the College of Business Education and the Institute of Finance Management. Of 417 respondents, 259 (62.1%) were males, and only 158 (37.9%) were females as illustrated in Table 4.1.

Table 4.1: Sex of Respondents for the Total Sample

Sex	Frequency	Percent
Male	259	62.1
Female	158	37.9
Total	**417**	**100**

Table 4.1 indicates that males constituted a bigger number of respondents (62.1%) than female students (37.9%). With exception of staff in the sample, both the College of Business Education and the Institute of Finance Management had more male than female students who were enrolled to pursue bachelor of accountancy. For example, the number of second year male students pursuing bachelor of accountancy at the Institute of Finance Management was 468(68.5%) compared to 215(31.5%)

female students as reported in Table 4.2. The same trend was observed at the College of Business Education. Second year male students pursuing bachelor of accountancy outnumbered females by 9.4 percent as indicated in Table 4.3.

Table 4.2: Sex of Students in a Sample at the Institute of Finance Management

Sex	Frequency	Percent
Male	168	68.3
Female	78	31.7
Total	**246**	**100**

Table 4.3: Sex of Students in a at the College of Business Education

Sex	Frequency	Percent
Male	87	54.7
Female	72	45.3
Total	**159**	**100**

4.2.2 Age of Respondents

The age of respondents was grouped into the following four categories: below 20 years; between 20 to 30 years; between 31 to 40 years; and between 41 to 50 years. A higher proportion of the respondents (86.6%) was in age group 20 to 30 years, followed by the age group 31 to 40 years which had 46(11.0%) respondents. The age group 20 to 30 years had many respondents because the two institutions enroll direct entry applicants (from secondary schools) that constituted a higher proportion of undergraduate students. The remaining age groups constituted few respondents as shown in Table 4.4.

Table 4.4: The Age Characteristics of Respondents for the Sample

Age grouping	Frequency	Percent
Below 20 years	3	0.7
20 - 30 years	361	86.6
31 - 40 years	46	11
41 - 50 years	7	1.7
Total	**417**	**100**

Comparison of sex of respondents across institutions portrayed a similar pattern, with a higher proportion of students found in the age group between 20 to 30 years than the other age groups from the sample. In a sample of this study, students from the Institute of Finance Management in the age group 20 to 30 years constituted 93.1 percent, and only 5.7 percent were from the age group 31 to 40 years. The other age groups had even few respondents as reported in Table 4.5. Similarly, a higher proportion of students in a sample (83%) from the College of Business Education were from the age group between 20 to 30 years. The age group between 31 to 40 years had 23 (14.5%) respondents, and only 3 respondents were in the remaining two age groups as shown in Table 4.6.

Table 4.5: The Age of Respondents at the Institute of Finance Management

Age grouping	Frequency	Percent
Below 20 years	2	0.8
20 - 30 years	229	93.1
31 - 40 years	14	5.7
41 - 50 years	1	0.4
Total	**246**	**100**

Table 4.6: The Age of Respondents at the College of Business Education

Age grouping	Frequency	Percent
Below 20 years	1	0.6
20 - 30 years	132	83.0
31 - 40 years	23	14.5
41 - 50 years	3	1.9
Total	**159**	**100**

4.2.3 Parental Level of Education of Students in a Sample

A total of 172 (42.5%) respondents had fathers who earned bachelor degrees and above, while only 61 (15.1%) respondents reported that their mothers had earned bachelor degrees and above. Also, 20.2% of the sample reported that their mothers had college diploma, and only 64(15.8%) respondents had fathers with diplomas. Tables 4.7 and 4.8 illustrate parental education status of the respondents.

Table 4.7: Education Status of Mothers of Respondents

Level of education	Frequency	Percent
Primary	129	31.9
Secondary	131	32.3
Certificate	2	0.5
Diploma	82	20.2
Degree and above	61	15.1
Total	**405**	**100**

Table 4.8: Education Status of Fathers of Respondents

Level of education	Frequency	Percent
Primary	71	17.5
Secondary	96	23.7
Certificate	2	0.5
Diploma	64	15.8
Degree and above	172	42.5
Total	**405**	**100**

4.3 Descriptive Statistics of the Study Variables

4.3.1 Means and Standard Deviations of the Study Variables

The Statistical Package for the Social Sciences (SPSS), Version 17.0, was used to compute the mean and standard deviations of the study variables. The mean (*M*) for academic performance (GPA) was 3.3466 while the mean (*M*) social support was 75.600, ranking higher than the means for social adjustment and academic adjustment. The mean score for social adjustment was lower (*M* = 74.8123) than those of academic adjustment and social support. The means and standard deviations of study variables are displayed in Table 4.9.

Table 4.9: Means and Standard Deviations of the Study Variables

Variable	N	Maximum Scores	Mean Scores	Standard deviations
Academic performance (GPA)	405	5.0	3.3466	0.5415
Social support	405	100.0	75.600	7.6594
Social adjustment	405	100.0	74.8123	7.8664
Academic adjustment	405	100.0	75.1481	7.0019

A comparison was also made to see how mean scores of the study variables behaved across the two institutions. As reported in Table 4.10, female respondents from the College of Business Education had the highest mean scores (*M* = 76.7639) in social support, followed by scores of male respondents from the Institute of Finance Management (*M* = 75.8690). Female respondents from the two institutions had the higher mean scores of academic adjustment than their male counterparts. With social adjustment, the mean scores of female respondents from the Institute of Finance Management was higher (*M* = 75.3462) than the rest of the cohorts.

Table 4.10: A Comparison of Mean Scores of Study Variables for the Two Institutions

Variable	Mean Scores				
	Total Sample Mean Scores	IFM		CBE	
		Male N = 168	Female N = 78	Male N = 87	Female N = 72
Academic performance	3.3466	3.29	3.37	3.41	3.32
Social support	75.600	75.8690	75.6282	73.8506	76.7639
Social adjustment	74.8123	75.2262	75.3462	73.7931	74.6250
Academic adjustment	75.1481	75.1250	75.9744	73.8161	75.4583

4.3.2 The Actual Range and Categories of Scores for the Study Variables

The actual range of scores was determined for each variable in order to have categories of scores for the study variables. The actual range for social support scores was 49-96 whereas the actual range for social adjustment was 48-93, and for academic adjustment the range was 54-94. The actual range and categories of scores for the study variables together with their frequencies and percentages are shown in Table 4.11. According to data presented in Table 4.11, more than half of the respondents reported that they had moderate scores in all study variables. A total of 269 (66.4%) respondents had moderate scores in social support, while 104 (25.7%) respondents had high scores. Only 32 (7.9%) respondents got low scores on social support, suggesting that they had inadequate and unreliable social support networks.

Similar to social support, more than half of the respondents (61.5%) reported that they had moderate social adjustment scores. But 29.9% of the respondents had high

scores in social adjustment. The remaining 35 (8.6%) had relatively low scores in social adjustment. With academic adjustment, 278 (68.6) respondents got moderate scores, while 18.1% of the respondents had high scores. In addition, only 54 (13.3%) respondents reported that they had experienced low academic adjustment.

Table 4.11: The Actual Range and Categories of Scores for the Study Variables

Variable	Actual Range	Categories of scores								
		Low	f	%	Moderate	f	%	High	f	%
Social support	49-96	49-64	32	7.9	65-80	269	66.4	81-96	104	25.7
Social adjustment	48-93	48-63	35	8.6	64-79	249	61.5	80-95	121	29.9
Academic adjustment	54-94	54-67	54	13.3	68-81	278	68.6	82-95	73	18.1

4.3.3 Scores of Respondents on Rating Scales

As reported earlier, this study used three rating scales to solicit information on social support, social adjustment, and academic adjustment. The three scales used were: the social support scale, the social adjustment scale, and the academic adjustment scale (Appendices II, III, and IV). The following sections discuss the scores of respondents on each rating scale.

4.3.3.1 Social Support Scale Results

The social support scale intended to measure the level of social support perceived by a student, from within or outside the college. The social support scale used in this study (Appendix II) represented five types of social support: emotional support; esteem support; informational support; companionship support; and tangible

assistance support. The scale had 25 items on a 4-point Likert type scale from 1 (*strongly disagree*) to 4 (*strongly agree*). Items on the social support scale included the following: “There is a special person in my family who cares about my feelings”, “There are people who I can count on in an emergency”, “If I needed money to buy something there is someone I could rely on”, “I get the assistance I need when doing my class work and other academic assignments”, “There are basic facilities at the College to enable me pursue my studies smoothly”, and “Can easily get psychological counseling at college”.

As indicated earlier in Table 4.9, the mean score (*M*) for social support was 75.600, suggesting a moderate score among respondents. Responses of the respondents on the social support scale are summarized in Table 4.12. According to data presented in Table 4.12, a total of 368 (90.8%) respondents agreed that they had a special person in families to care about their feelings. The same table indicated that 381 (93.0%) respondents had the assistance they needed when doing their academic work. Only 5.9 percent of the respondents reported that they had no assistance in doing their class work and other academic assignments.

Similarly, 80 percent of the respondents agreed that they could get money to buy something. However, 20 percent of the total sample revealed that they could not get money to buy something. Such variations can be partly attributed to the varying levels of socioeconomic status of students attending colleges. Notably, however, a higher proportion of respondents (94.1%) reported that they had people to assist in case of emergency. “People” being referred to, most likely, included friends, fellow students, and college staff at college, as well as family and other members in the

community.

Table 4.12: Social Support Scale Results

	Items	Responses (N = 405)							
		Strongly agree		Agree		Disagree		Strongly disagree	
		count	%	count	%	count	%	count	%
1	I can talk about my problems with my family.	220	54.3	159	39.3	18	4.4	8	2.0
2	There is a special person in my family who cares about my feelings.	212	52.3	156	38.5	27	6.7	10	2.5
3	There is someone I can talk to about important decisions in my life.	216	53.3	171	42.2	14	3.5	4	1.0
4	There are people who I can count on in an emergency.	174	43.0	207	51.1	22	5.4	2	0.5
5	I am able to talk about my feelings openly with my friends.	80	19.8	196	48.4	97	24.0	32	7.9
6	If I needed money to buy something there is someone I could rely on.	153	37.8	171	42.2	59	14.6	22	5.4
7	If I feel lonely, there are several people I can talk to.	144	35.6	206	50.9	45	11.1	10	2.5
8	There is always a person at the College who is around when am in need.	105	25.9	194	47.9	77	19.0	29	7.2
9	The College staff are ready to assist me when I need help.	72	17.8	238	58.8	73	18.0	22	5.4
10	I have close personal relationships with other students in this College.	129	31.1	205	50.6	57	14.1	14	3.5
11	I get support services at the College whenever I am in need.	47	11.6	223	55.1	112	27.7	23	5.7
12	Other people respect my skills and abilities.	131	32.3	254	62.7	15	3.7	5	1.2
13	I get the assistance I need when doing my class work and other academic assignments.	133	32.8	248	61.2	20	4.9	4	1.0
14	I have friends at the College with whom I can share my joys and sorrows.	168	41.5	199	49.1	31	7.7	7	1.7
15	I have access to social activities at the College.	43	10.6	220	54.3	115	28.4	27	6.7
16	The College rules and regulations are friendly and supportive.	92	22.7	231	57.0	63	15.6	19	4.7
17	There are basic facilities at the College to enable me pursue my studies smoothly.	33	8.1	209	51.6	121	29.6	42	10.4
18	If I needed to worship there is a mosque/church nearby the College where I can go.	191	47.2	139	34.3	45	11.1	30	7.4
19	There is a religious leader at the College with whom I can share my spiritual issues.	120	29.6	151	37.3	89	22.0	45	11.1

Items		Responses (N = 405)							
		Strongly agree		Agree		Disagree		Strongly disagree	
		count	%	count	%	count	%	count	%
20	There is a trustworthy person I could turn to for advice if I were having problems.	142	35.1	215	53.1	38	9.4	10	2.5
21	There are people who enjoy the same social activities as I do in my College.	66	16.0	244	60.2	79	19.5	16	4.0
22	I get the financial support I need.	95	23.5	199	49.1	83	20.5	28	6.9
23	There are people that would praise me for whatever good things I do.	118	29.1	246	60.7	32	7.9	9	2.2
24	Can easily get legal advice at college.	35	8.6	183	45.2	150	37.0	37	9.1
25	Can easily get psychological counseling at college.	23	5.7	133	32.8	170	42.0	79	19.5

On the other hand, a total of 249 (61.5%) respondents reported that they could not easily get psychological counseling at college. Only 156 (38.5%) respondents reported that they could easily get psychological counseling at college. This suggests that there was inadequate provision of counseling services as noted by SARUA (2009). Through its Higher Education Development Program (2010-2015), the Government of Tanzania also noted several challenges in the provision of higher education in Tanzania, including; poor student mentorship and career guidance (URT, 2010). It was also revealed from the interviews that provision of students' support services faced several constraints, as one of the interviewees remarked:

> *Students' support services can enhance the teaching and learning process, and eventually assist students attain their desired educational outcomes. but it is unfortunate that our offices are faced with shortage of facilities, and inadequate staff to cater for the growing student population.*

With an item on the availability of basic facilities at college, 59.7 percent of the respondents agreed that they were facilities to enable them pursue studies. But 10.4 percent of the respondents "strongly disagreed" that there were basic facilities to enable smooth teaching and learning. In addition, 29.6 percent "disagreed" that there were basic facilities to enable them pursue studies smoothly. Taken together, the results on this item suggest that there were inadequate teaching and learning facilities at colleges. As with the case with the provision of counseling services, the availability of teaching and learning facilities in most colleges is also a challenge facing higher education in Tanzania.

4.3.3.2 Social Adjustment Scale Results

The social adjustment scale was used to measure the extent to which the student "fitted in" to the social environment, gaining membership into the college community. A socially adjusted student is involved in campus activities, both in and out of the classroom. The social adjustment scale had 25 items on a 4-point Likert type scale (Appendix IV). Response categories were (1) *not true at all*, (2) *not true*, (3) *somehow true*, and (4) *very true*. Items on the social adjustment scale included the following: "I feel good being part of the college environment", "I am having many friends at college", "I get enough time to participate in sports, games and recreational activities at college", "I interact well with college staff", and "College life is most interesting".

The mean score (*M*) for social adjustment was 74.8123, indicating there was a moderate score among many respondents. Responses of the respondents on the social adjustment scale are summarized in Table 4.13. From Table 4.13, a higher

proportion of the respondents totaling 376 (92.9%) reported they felt good being part of the college environment. Only 29 (7.1%) respondents reported of not feeling good being part of the college environment. Likewise, a total of 372 (91.8%) respondents agreed that college life was interesting, and only 33 (8.2%) respondents reported that college life was not interesting.

Also, 359 (88.6%) respondents reported that they had many friends at college, suggesting that they interacted well with other students. In addition, 93.5% of the respondents reported that "they were getting along well with their classmates". However, only 41% of the respondents had informal contacts with college lecturers, implying that there were minimal out-of-class social interactions between college students and their lecturers. Furthermore, Table 4.13 showed that 54.8% of the respondents in this study had no enough time to participate in sports, games and recreational activities at college. Similarly, respondents totaling 372 (67.9%) reported that they were satisfied with the extra-curricular activities on campus. But 32.1% of the respondents reported that they were not satisfied with the extra-curricular activities on campus.

4.3.3.3 Academic Adjustment Scale Results

The academic adjustment scale measured the extent to which the respondents adjusted to the academic demands of the college. The scale also comprised 25 items, each rated on a 4-point Likert-type scale, with higher scores reflecting academic adjustment (Appendix III). Respondents were asked to rate their level of agreement or disagreement, indicating "very true", or "somehow true", or "not true", or "not true at all".

Table 4.13: Social Adjustment Scale Results

Items		Responses (N = 405)							
		Very true		Somehow true		Not true		Not true at all	
		count	%	count	%	count	%	count	%
1	I feel good being part of the college environment.	272	67.2	104	25.7	22	5.4	7	1.7
2	I am having many friends at college.	213	52.6	146	36.0	38	9.4	8	2.0
3	I am adjusting well to college.	147	36.3	240	59.3	15	3.7	3	0.7
4	I have had informal, personal contacts with college lecturers.	28	6.9	138	34.1	165	40.7	74	18.3
5	I am satisfied with non-academic social organized activities at college.	51	12.6	204	50.4	122	30.1	28	6.9
6	The fact that I miss my home is a source of difficulty for me now.	56	13.8	126	31.1	152	37.5	71	17.5
7	I am satisfied with the extracurricular activities available at college.	40	9.9	235	58.0	104	25.7	26	6.4
8	I am getting along very well with my classmates.	180	44.4	199	49.1	23	5.7	3	0.7
9	I feel that I have enough social skills to get along well in the college setting.	157	38.8	206	50.9	34	8.4	8	2.0
10	I get time to participate in sports, games and recreational activities at college.	45	11.1	138	34.1	140	34.6	82	20.2
11	I am satisfied with the extent to which I participate in social activities at college.	52	12.8	191	47.2	120	29.6	42	10.4
12	I interact well with students of opposite sex.	167	41.2	196	48.4	28	6.9	14	3.5
13	I have been feeling lonely a lot at college lately.	42	10.4	149	36.8	165	40.7	49	12.1
14	I feel I have good control over my life situation at college.	237	58.5	145	35.8	20	4.9	3	0.7
15	I interact well with college staff.	56	13.8	206	50.9	99	24.4	44	10.9
16	Sometimes I feel that I would rather be home than here.	32	7.9	92	22.7	137	33.8	144	35.6
17	I have some good friends at college with whom I can talk about my problems.	166	41.0	199	49.1	28	6.9	12	3.0
18	I am satisfied with the extent to which I am participating in activities organized by the Student Government.	61	15.1	195	48.1	104	25.7	45	11.1
19	College life is most interesting.	203	50.1	169	41.7	22	5.4	11	2.7
20	I have problems in managing time effectively.	80	19.8	199	49.1	99	24.4	27	6.7
21	I get time to have fun and enjoyment outside the college with my friends.	118	29.1	217	53.6	51	12.6	19	4.7
22	I am happy about my decision to join this College.	271	66.9	107	26.4	23	5.7	4	1.0
23	Sometimes I don't feel safe at the College.	38	9.4	133	32.8	166	41.0	68	16.8
24	I am worried about meeting new people at the college.	23	5.7	61	15.1	188	46.4	133	32.8
25	I manage to keep in touch with my family.	309	76.3	84	20.7	9	2.2	3	0.7

The mean score (*M*) for academic adjustment was 75.1481 which falls under moderate scores. Responses of the respondents on the academic adjustment scale are summarized in Table 4.14. As showed in Table 4.14, 332 (82%) respondents reported that they were satisfied with the GPA they earned in their first year. Only 18% of the respondents reported that they were not satisfied with the GPA they earned in their previous year. The same table also indicated that a total of 375 (92.6%) agreed that they were enjoying the academic work at college. Also, 381 (94.1%) reported that they attended classes regularly. Only 5.9% of the respondents reported that they didn't attend class regularly.

Moreover, Table 4.14 showed that 92.9% of the respondents had a "good study group". With an item on "spending time in academic work", a sizeable number of respondents totaling 367 (90.7%) reported that they spent enough time in academic work.

4.4 Testing of Hypotheses of the Study

The goal of hypothesis testing is to rule out chance as a plausible explanation for the results. Using Statistical Package for the Social Sciences (SPSS), Version 17.0, inferential statistics techniques were applied to determine the relationships among the study variables. This study, however, used a correlational design and that findings may not necessarily indicate the cause-and-effect relationships of both independent and dependent variables. Moreover, the sample of this study was taken from urban colleges, implying that a sample from rural settings could have probaby yielded different results.

Table 4.14: Responses of the Respondents on the Academic Adjustment Scale

Items		Responses (N = 405)							
		Very true		Somehow true		Not true		Not true at all	
		count	%	count	%	count	%	count	%
1	I am satisfied with my first year GPA.	91	22.5	241	59.5	58	14.3	15	3.7
2	I am confident I will achieve my goals.	327	80.7	75	18.5	2	0.5	1	0.2
3	I am finding academic work at college difficult.	45	11.1	255	63.0	88	21.7	17	4.2
4	I have a good study group.	200	49.4	176	43.5	23	5.7	6	1.5
5	I have regular contacts with my lecturers to discuss various issues regarding the courses.	39	9.6	140	34.6	159	39.3	67	16.5
6	I am not working as hard as I should at my course work.	27	6.7	136	33.6	161	39.8	81	20.0
7	My academic goals and purposes are well defined.	224	55.3	162	40.0	18	4.4	1	0.2
8	I spend enough time in my academic work.	206	50.9	161	39.8	36	8.9	2	0.5
9	Getting a college degree is very important to me.	374	92.3	24	5.9	6	1.5	1	0.2
10	I have been very efficient in the use of study time lately.	131	32.3	220	54.3	39	9.6	15	3.7
11	I enjoy writing papers for my courses.	155	38.3	206	50.9	36	8.9	8	2.0
12	I am really motivated to study hard.	293	72.3	85	21.0	24	5.9	3	0.7
13	Sometimes I have doubts regarding the value of a college education.	76	18.8	201	49.6	95	23.5	33	8.1
14	I am satisfied with the number and variety of courses available at college.	136	33.6	193	47.7	62	15.3	14	3.5
15	Recently I have had trouble concentrating when I try to study.	85	21.0	188	46.4	107	26.4	25	6.2
16	I am not doing well enough academically compared to the efforts I put in.	62	15.3	171	42.2	127	31.4	45	11.1
17	Most of the things I am interested in are not related to any of my course work at college.	49	12.1	110	27.2	170	42.0	76	18.8
18	I am satisfied with the quality of courses available at college.	136	33.6	193	47.7	62	15.3	14	3.5
19	I am enjoying my academic work at college.	161	39.8	214	52.8	28	6.9	2	0.5
20	I am having trouble in doing my homework assignments.	65	16.0	184	45.4	130	32.1	26	6.4
21	I am satisfied with my program of courses for this semester.	174	43.0	188	46.4	34	8.4	9	2.2
22	I am attending classes regularly.	296	73.1	85	21.0	18	4.4	6	1.5
23	I am very satisfied with lecturers I have now in my courses.	175	43.2	189	46.7	34	8.4	7	1.7
24	I am quite satisfied with my program of specialization.	174	43.0	188	46.4	34	8.4	9	2.2
25	I sometimes get fears of failing examinations.	230	56.8	121	29.9	34	8.4	20	4.9

Correlation analysis using Pearson Product-Moment was used to examine the relationships among the study variables in the first four hypotheses. The alpha level, as a criterion for interpreting the test statistic, was set at 0.01. Chi-Square Test was also used to determine how social support, academic adjustment, and social adjustment differed with sex of college students. The Chi-Square Distribution Table (Appendix VI) was used at alpha levels of 0.05 and 0.10 to make plausible decision regarding the relationships between variables. This study had five hypotheses, which were:

a) Social support is positively related to academic performance.

b) Social adjustment is positively related to academic performance.

c) There is a positive relationship between academic adjustment and academic performance among college students.

d) Social support is positively related to social adjustment of college students.

e) Social support provision, academic adjustment, and social adjustment are related to sex of college students.

4.4.1 Relationship Between Social Support and Academic Performance

The first hypothesis was based on the argument that social support was one of the important predictors of college students' academic achievement. It was assumed that students who scored low in social support were likely to score low in academic performance as well, and vice versa. To test this assumption a correlation analysis using Pearson Product-Moment method was used. Table 4.15 presents SPSS outputs showing results of correlation analysis among variables. Social support was positively related to academic performance but not significant (r = .259).

Table 4.15: Correlations Among Study Variables

Variables		1	2	3	4
1	Social support	0.0			
2	Social adjustment	.481**	0.0		
3	Academic adjustment	.543**	.452**	0.0	
4	Academic performance (GPA)	.259	.431**	.604**	0.0
Note: N = 405 **** Significant at the 0.01 level (2-tailed)**					

4.4.2 Relationship Between Social Adjustment and Academic Performance

The second hypothesis proposed that social adjustment would be positively related to academic performance. Results of correlation revealed that there was a positive and significant relationship between academic performance and social adjustment. A moderate correlation ($r = .431$, $p < .01$) was found as indicated in Table 4.15.

4.4.3 Relationship Between Academic Adjustment and Academic Performance

The third hypothesis posited that there was a positive relationship between academic adjustment and college students' academic performance. This hypothesis was based on the argument that academic adjustment is an important predictor of academic success among college students. Pearson Product-Moment method showed that a statistically significantly relationship was found between academic adjustment and students' academic performance. A moderately strong correlation was found ($r = .604$, $p < .01$) as reported in Table 4.15.

4.4.4 Relationship Between Social Support and Social Adjustment

The fourth hypothesis aimed at ascertaining the relationship between social support and social adjustment of college students. It was assumed that the attainment of social support among college students would be related to their social adjustment. Using the Pearson Product-Moment method it was revealed that social support and

social adjustment of college students were positively and significantly related. A moderate correlation (r = .481, p < .01*)* between social support and social adjustment is as displayed in Table 4.15 above.

4.4.5 Social Support, Academic Adjustment, and Social Adjustment by Sex

The final goal of this study was to explore the differences in attainment of social support, academic adjustment, and social adjustment in relation to sex of college students. It was hypothesized that social support provision, academic adjustment, and social adjustment would be related to sex of college students.

4.4.5.1 Relationship Between Social Support and Sex of College Students

One of the components of the fifth hypothesis was to explore the differences in social support scores in relation to sex of college students. It was assumed that social support provision was related to sex of college students. Mean and standard deviations in social support by sex among respondents are shown in Table 4.16 and it was revealed that female students attained higher social support (M = 76.3000; SD = 7.21645) than their male counterparts. Social support scores in relation to sex of respondents are reported in Table 4.17. Table 4.17 shows that, out of the total sample, a higher proportion of female students (70.7%) had moderate scores of social support than male students (62.4%). More than a quarter of male students (27.8%) had high social support scores, slightly higher than females (25.3%).

Table 4.16: Mean and Standard Deviations in Social Support by Sex

Sex	N	Mean	Standard Deviation
Male	255	75.1882	7.89323
Female	150	76.3000	7.21645
Total	405	75.6000	7.65940

Table 4.17: Sex and Social Support Scores

			Social support scores			**Total**
			Low (49-64)	Moderate (65-80)	High (81-96)	
Sex	Male	Count	25	159	71	255
		% of Total	9.8%	62.4%	27.8%	100.0%
	Female	Count	6	106	38	150
		% of Total	4.0%	70.7%	25.3%	100.0%
Total		Count	31	265	109	405
		% of Total	**7.7%**	**65.4%**	**26.9%**	**100.0%**

The Chi-Square test was performed to analyze variations of social support by sex of respondents. Results from Chi-Square tests reported in Table 4.18, indicate that the χ^2 statistic was 5.375, which is less than the critical value of 5.99 in the Chi-Square Distribution Tables at the 5 percent alpha level (Appendix VI). Thus**,** results yielded by Chi-Square showed that attainment of social support among respondents was not significantly related to their sex, χ^2 (2, N=405) = 5.375 < 5.99, p=.05.

Table 4.18: Chi-Square Test Showing Relationship Between Social Support and Sex

	Value	**df**	**Asymp. Sig. (2-sided)**
Chi-Square	5.375	2	.068
Likelihood Ratio	5.798	2	.055
Linear-by-Linear Association	.331	1	.565
N of Valid Cases	405		

4.4.5.2 Relationship Between Academic Adjustment and Sex of College Students

This study also endeavored to explore differences in attainment of academic adjustment in relation to sex of college students. The mean scores and standard deviations for academic adjustment by sex are shown in Table 4.19, in which female students had higher scores in academic adjustment (M = 75.6933; SD = 6.08546)

than males (*M* = 74.8275; *SD* = 7.48184). Sex and academic adjustment scores cross tabulation are reported in Table 4.20, indicating that a higher proportion of the respondents had moderate academic adjustment scores (68-81 category). Also, a total of 160 (62.7%) male students had academic adjustment scores between 68 and 81, whereas 106 (70.7%) female students' scores were within the same range.

Table 4.19: Mean and Standard Deviations in Academic Adjustment by Sex

Sex	N	Mean	Standard Deviation
Male	255	74.8275	7.48184
Female	150	75.6933	6.08546
Total	405	75.1481	7.00196

Table 4.20: Sex and Academic Adjustment Scores

			Academic adjustment scores			Total
			Low (54-67)	Moderate (68-81)	High (82-95)	
Sex	Male	Count	41	160	54	255
		% of Total	16.1%	62.7%	21.2%	100.0%
	Female	Count	13	106	31	150
		% of Total	8.7%	70.7%	20.7%	100.0%
Total		Count	54	266	85	405
		% of Total	**13.3%**	**65.7%**	**21.0%**	**100.0%**

As reported before, the Chi-Square test was used to analyze the differences in attainment of academic adjustment by sex of respondents. Results from Chi-Square test are reported in Table 4.21. The computed Chi-Square value was 4.805 which was greater than the critical value of 4.61 in the Chi-Square Distribution Table at the 0.10 percent alpha level (Appendix VI). Thus**,** results yielded by Chi-Square showed that attainment of academic adjustment among respondents was significantly related to their sex, χ^2 (2, N=405) = 4.805>4.61, p=0.10.

Table 4.21: Chi-Square Test Showing the Relationship Between Academic Adjustment and Sex

	Value	df	Asymp. Sig. (2-sided)
Chi-Square	4.805	2	.090
Likelihood Ratio	5.056	2	.080
Linear-by-Linear Association	1.330	1	.249
N of Valid Cases	405		

4.4.5.3 Relationship Between Social Adjustment and Sex of College Students

Finally, this study sought to determine whether or not the social adjustment of college students was related to their sex. Table 4.22 shows the mean and standard deviations in social adjustment by sex among respondents. As reported in Table 4.22, male students had lower scores in social adjustment (M = 74.7059; SD = 8.24691) than females (M = 74.9933; SD = 7.19666). Social adjustment scores in relation to sex of respondents are reported in Table 4.23. Just like social support and academic adjustment, a similar trend was observed in Table 4.23 indicating that more than half of the respondents had moderate scores on social adjustment.

Table 4.22: Mean and Standard Deviations in Social Adjustment by Sex

Sex	N	Mean	Standard Deviation
Male	255	74.7059	8.24691
Female	150	74.9933	7.19666
Total	405	74.8123	7.86642

Table 4.23: Sex and Social Adjustment Scores

			Academic adjustment scores			Total
			Low (48-63)	Moderate (64-79)	High (80-95)	
Sex	Male	Count	32	143	80	255
		% of Total	12.5%	56.1%	31.4%	100.0%
	Female	Count	12	97	41	150
		% of Total	8.0%	64.7%	27.3%	100.0%
Total		Count	44	246	121	405
		% of Total	**10.9%**	**59.3%**	**29.9%**	**100.0%**

The Chi-Square test was performed to determine whether or not social adjustment was related to sex of college students. From the SPSS outputs in Table 4.24, a Pearson Chi-Square value was 3.490 compared to theoretical value of 4.605 at 2 degrees of freedom and 0.10 percent significance level. The computed Chi-Square value is less than the theoretical value in the Chi-Square Distribution Table (Appendix VI), implying that social adjustment and sex of college students were not significantly related, χ^2 (2, N=405) = 3.490 < 4.605, p=0.10.

Table 4.24: Chi-Square Test Showing the Relationship Between Social Adjustment and Sex

	Value	**df**	**Asymp. Sig. (2-sided)**
Chi-Square	3.490	2	.175
Likelihood Ratio	3.566	2	.168
Linear-by-Linear Association	.007	1	.935
N of Valid Cases	405		

4.5 Chapter Summary

The present chapter has dwelt on the data presentation and analysis of study variables. Firstly, the chapter dealt with descriptive analysis of sample characteristics, as well as the means and standard deviations of study variables. Then, data presentation and analysis focused on testing the five research hypotheses to achieve the desired objectives of the study. Correlation analysis using Pearson Product-Moment, and Pearson Chi-Square Tests were used to examine the relationship among variables of interest.

CHAPTER FIVE

5.0 DISCUSSION OF FINDINGS

5.1 Introduction to the Chapter

This chapter presents a discussion of findings presented in chapter four. Five hypotheses were formulated and tested to guide the researcher in examining the stated objectives. The chapter is divided into the following five sections, each section responding to each research hypothesis: Social support and academic performance among college students; Social adjustment and academic performance among college students; academic adjustment and academic performance among college students; Social support and social adjustment of college students; and Social support, academic adjustment, and social adjustment in relation to sex of college students.

5.2 Social Support and Academic Performance Among College Students

The first hypothesis sought to investigate the relationship between social support and academic performance among college students in Tanzania. Inconsistent with the expectation of this study, results yielded by correlation (r = .258) found that social support and academic performance were not significantly related. The current study employed a measure of social support which did not explicitly differentiate sources of social support – parents, friends, spouses or lecturers. All items on the social support scale asked availability and levels of social support without specifying sources.

Likewise, this study did not delineate types of social support functions (emotional, esteem, informational, companionship, and tangible assistance) and relate the same

with academic performance. One possible explanation for this finding could be attributed to this fact. A different measure of social support clearly indicating the types and sources of social support would probably report a different experience. Furthermore, the inadequate provision of students'support services in colleges, as well as the persistence delay in issuance of students' loans by the Higher Education Students' Loans Board, for example, may partly be attributed to this finding.

Perceptions and benefits from received support are dependent on the cultural context in which the individual's support provision and receipt occurs. Chen *et al*. (2012), for example, suggested that the meaning and conceptualization of social support may differ in different cultural contexts. In the same way, Sarason *et al*. (1983) noted that satisfaction with support received or perceived to be available may be influenced by personality factors such as self-esteem, and feeling of control over the environment. That could lead to different findings across diverse samples when social support is related to academic performance. Thus, findings in literature on social support and academic achievement are inconsistent.

Findings from this study, however, confirm certain conclusions from previous studies, suggesting that social support is not significantly related to academic achievement. In a sample of 10,445 post secondary education students in Canada, Mackinnon (2000) investigated the relationship between social support and academic performance. Findings from the study revealed that social support at any rate did not improve academic performance over time (*ibid*). Instead, students perceived higher levels of social support as a result of performing well in school. Besides, the study indicated that social support did not protect against decline in academic performance

over time.

In a Canadian sample of university students, Grayson (2003) showed that social support had no impact on academic success. Dubois *et al*., (1992) found that perceived social support from family, friends and school could not predict future grade-point average. Similarly, Nicpon *et al*., (2006) found that perceived social support from family and friends was not significantly related to academic performance. In another study, Cutrona *et a.* (1994) investigated the extent to which parental social support predicted college academic achievement among undergraduate students.

The study showed that parental social support was a significant predictor of college academic achievement. However, academic achievement was not predicted by social support from either friends or romantic partners. This view was also shared by Fan and Chen (2001), who noted a strong correlation between parental support and academic performance. Although findings from this study revealed that social support is not significantly related to academic performance among college students, it does not imply that interventions designed to improve social support of students should be disregarded. Pratt *et al*. (2000), for example, noted that interventions designed to improve social support for students have a wide range of benefits, including increased psychological adjustment and reduced behavioral problems. Similarly, Cooper *et al.* (1995) reported that social support networks appear to be a crucial component of social adjustment, and predict psychological well-being among college students.

A study by Rong and Gable (1999) revealed that the living environment, social support, and making meaningful relationships had an impact on students' overall adjustment to the college environment. Riggio et al. (1993) revealed that satisfaction with social support was linked with increased self-esteem, reduced feelings of loneliness, and satisfaction with college life in general. Similary, Hays and Oxley (1986) in their longitudinal study of development of social support networks among first year students found that the greater the number of students in an individual in one's social network, the better the student got adjusted to the college.

5.3 Social Adjustment and Academic Performance Among College Students

One of the objectives of this study was to explore the relationship between social adjustment and academic performance among college students. The research hypothesis was based on the assumption that social adjustment was positively related to academic performance among college students. This study revealed that there was a positive and significant relationship between academic performance and social adjustment (r = .431) Satisfying and quality interpersonal relationships are important in improving one's capacity to function effectively in the academic domain (Allen *et al*., 2008; Martin and Dowson, 2009).

There is a positive relationship between healthy interpersonal relationships and academic performance (Morrison *et al*., 2003; Walton and Cohen, 2007). Cohen and Steele (2002) as well as Caprara *et al*. (2000) shared the same view by reporting that people with a trusting relationship with a teacher or mentor are better able to take advantage of the nourishing interaction, and other opportunities to learn. Moreover, Baumeister and Leary (1995) asserted that among the most powerful human motives

is the desire to form and maintain social bonds, and that social connections have been observed to be of vital importance in diverse domains of human functioning. The authors further noted that failing to achieve and adequate social connections can have negative consequences, including poor academic performance and higher risk of drop out. Baumeister *et al*. (2002) reported that, when an individual's sense of social connectedness is threatened, the ability to self-regulate is negatively affected, with adverse effects on intelligence performance.

As noted before, college experience goes beyond academic hassles to also include demands associated with social environments. Items on the social adjustment scale used in this study covered issues such as general social involvement on campus, personal relationships, relational support networks, and socialization satisfaction. Items like "I feel that I have enough social skills to get along well in the college setting", "I have had informal, personal contacts with college lecturers", "I am satisfied with the extent to which I am participating in social activities at college", "I am getting along very well with my classmates" and "I have some good friends at college with whom I can talk about my problems" were all geared to solicit the levels of social and interpersonal skills of the respondents.

This study found a moderate correlation between social adjustment and academic performance, and this validates the close relationship between the two constructs among college students. Findings of this study support the social learning theorists who believe that successful learning takes place in an environment where individuals can construct ideas, culture, histories, and meaning as the result of ongoing social interactions and collaborative functioning (Brown *et al*., 1989). Similarly,

interpersonal relationships afford learners to construct their own knowledge through experiencing the multiple perspectives of others (Sweller, 1989; Johnson & Johnson, 1994). With such realization, it is not surprising that the students' social life somewhat was related to their academic performance, as one of the interviewees stated:

> *Social life on campus is part of the college experience. Students need to adapt to new social norms, develop and manage new interpersonal relations,with both their peers and college staff, particularly lecturers. They need to have at least minimal and meaningful interactions with the diverse members of the college community so that they can pursue their studies.*

The findings of this study are similar and consistent with other research findings indicating that there was a significant relationship between social adjustment and academic performance among students. In a longitudinal study of 695 participants from middle school, Mahoney and others (2003) found that consistent participation in extracurricular activities was positively associated with academic success. The study further highlighted that the more students were academically and socially involved, the more they were likely to perform better in academics (*ibid*).

Gerdes and Mallinckrodt (1994) mentioned some components of social adjustment as becoming integrated into the social life of college; making friends; social networking; and managing new social freedoms. The authors (*ibid*) further noted that social adjustment of students may be pivotal like other academic factors in predicting persistence and future educational outcomes.

Huang and Chang (2004) studied effects of involvement on third-year college students in Taiwan. The sample of the study had 627 students from 14 different institutions. Using scatter plot analysis, findings from the study indicated that the relationship between academic and student involvement was linear and positive. Results from the study revealed further that students with high social involvement reported success in academic, communication skills, self-confidence, and interpersonal skills (*ibid*). Baker (2008) conducted a study to examine the effects of involvement in extracurricular activities on academic performance. The sample included 1,907 college students attending various institutions in the United States of America. Results from the study showed that the type of extracurricular activity in which students were involved significantly affected academic performance.

In another study, Mayo, Murguia and Padilla (1995) found that successful students' social adjustment indirectly contributed to a higher grade point average whereas unsuccessful social adjustment led to poor academic achievement, and withdraw from the college. Similarly, a study by Wentzel and Asher (1995) which investigated association between social competence and academic performance found that children who displayed sociable behaviors achieved high in academic domains. The study further noted that children who portrayed pro-social behaviors, were accepted, and liked by their peers (*ibid*).

Several models have been proposed to explain the relationship between social functioning and academic performance in children. Wentzel and Asher (1995) suggested that social performance affects academic performance in the sense that children's social competence and interpersonal acceptance create good avenues for

academic success. Proponents of this view argue that sociable behaviors may help create a classroom environment that is conducive for instruction and learning. Moreover, children who are socially skilled may be cooperative and likely to receive requested assistance in doing academic class work.

Although the above explanation regarding the relationship between social functioning and academic performance was meant for children, it sheds light to the current study. Students need certain social and interpersonal skills to see them adjust socially in the college environment and the surrounding community. Russell and Petrie (1992) asserted that "students might increase their positive academic experiences by becoming more involved in their campus community and, particularly by interacting socially with peers and faculty" (p. 493). Evanoski (1988) had such views before and insisted that student involvement in campus activities, programs, and extra-curricular activities resulted into positive effects on students, including higher self-esteem, and academic achievement. In another study, in the early 1980s Winter *et al*. (1981) observed that college students who were regularly involved in extracurricular activities were more mature, and had better career decision making skills. That was attributed to the fact that involvement in a group meant to be committed in the planning of various extracurricular activities, sharing views.

According to Winter and colleagues (1981), such involvement contributed greatly to students' maturity and better decision making skills. The ability of a student to integrate with the college environment depends on how one navigates several aspects of the social world within the college community. According to Wolf-Wendel *et al*.

(2009), integration refers to the connection students have with other students and faculty on campus resulting from shared beliefs and attitudes. In their study, Pancer *et al*. (2004) revealed that students who were poor at making new friends were less successful becoming integrated with the college environment. Such students (who were less integrated with campus life) attained poor academic outcomes (Wang, 2009; Cohen and Brawer, 2008). The more connections and involvement a student has to college life, the greater chance that student has to persist (Cohen and Brawler, 2008; Hunter, 2006), and succeed academically (Astin, 1993a; Wang, 2009; Napoli and Wartman, 1998). Connections to communities of support within an institution can help cultivate the skills necessary to develop and maintain academic success (Guiffrida, 2003, 2004); Guiffrida & Douthit, 2010), and can buffer against psychological disorders (Edman & Brazil, 2009).

Wilcox *et al*. (2005) asserted that making friends who became a student's "new family", and that could be counted on, were pivotal to later academic outcomes. This view was presented before by Astin (1993b) who asserted that individuals have a tendency to adopt the norms of the group of which they are a part. Assuming that peers are prosocial, Astin (1993b) noted that the more integrated a student is with his/her peers the more likely one would internalize the values of the group, and in turn persist in college and attain good educational outcomes. In a study of 172 community college students, Cordell-McNutty and Ashton (2008) found that participation in extra extracurricular activities predicted college GPA. Likewise, Moore *et al*. (1998) reported that student involvement in extracurricular activities was positively related to educational aspirations, bachelor's degree attainment, and

graduate school attendance. Wintre and Bowers (2007) reported that a moderate score on the social adjustment scale was associated with a higher likelihood of persistence and graduation from the institution.

Sanja et al. (2010) reiterate the importance of social adjustment to students' wellbeing, indicating that it is a significant predictor of both life satisfaction and depression. Students who were well integrated in social activities, and satisfied with social aspects of the college environment, were more satisfied with the overall campus life with reported fewer psychological disorders. Yazedjian *et al*. (2010) conducted a study to explore how students perceived success in college and found that a sense of belonging and social interactions were among the important elements in predicting college students' educational outcomes. Similarly Moffatt (1991) noted that students' success in college was somewhat determined by finding a balance between social life and academic activities. Thus, these findings imply that greater levels of students' social engagement at the college are associated with greater likelihood of accomplishing educational goals.

5.4 Academic Adjustment and Academic Performance Among College Students

The third hypothesis sought to investigate the relationship between academic adjustment and academic performance among college students. Using Pearson Product-Moment correlations, this study revealed that academic performance was positively and significantly related to academic adjustment. A moderately strong correlation ($r = .604$) was found indicating that academic adjustment is an important domain in academic performance. According to Baker and Siryk (1984), academic adjustment measures attitudes towards academic work; how well students fit in the

academic realm; effectiveness of students' academic efforts; and the acceptability of what the academic environment offers. Astin (1993) asserted that involvement with academics, including writing papers; conducting academic research or project; and doing homework – are all related to better educational outcomes. Astin (1993) further noted that "academic involvement has stronger and more widespread positive effects than almost any other involvement measure" (p.376). This was also echoed in the interviews by one staff working in the student affairs and services department:

> *There is no doubt, that successful integration into the academic realm lead to better academic performance. We expect that an adjusted student finds the academic environment challenging, but works hard to accomplish different educational demands. Difficulties in adjusting to college may obvious lead to poor performance.*

Just like other scales, the academic adjustment scale used in this study relied on self-reports (data) from students. Among others, the scale comprised the following items: "I have regular contacts with my lecturers to discuss various issues regarding the courses", "I spend enough time in my academic work", "I enjoy writing papers for my courses", "I am not working as hard as I should at my course work", "I am quite satisfied with my program of specialization", and "I am satisfied with the number and variety of courses available at college". All these items belong to the academic domains.

A number of research studies have confirmed the findings of this study, suggesting that academic adjustment is a vital predictor of academic performance among students. Need and De Jong (2001) explored the effects of local study environments

on the achievements in higher education of Dutch undergraduate students. They found that the grade averages, the number of courses successfully completed, and the drop-outs rates of students were related to the ways in which students selected their institutions and their academic integration into the institutions they chose.

Bracken (2012) noted that academic success is in part a result of mastery and application of educationally advantageous skills, including successful time management, and ability to retain focus on coursework throughout a semester. Thus, academic adjustment to college requires that students should obtain and refine necessary academic skills. Astin (1993a) reported that students' learning was deepened by their involvement in the college academic domain. It included time and effort a student dedicates to coursework throughout a semester. Astin (1993a) further noted that the number of hours spent studying by college students was positively associated with retention, academic development, preparation and enrollment in graduate school, and increase in cognitive skills. Likewise, Kitsantas *et al*. (2008) reported that college students who were able to manage their time effectively achieved higher academic performance, even after controlling high school grade point average, suggesting that precollege entry factors may be less relevant to academic success than is the mastery of critical academic skills while in college.

Results from this study confirm findings obtained from other studies. Chow (2003) investigated the predictors of educational experience and academic performance among university students in Regina. In a sample of 115 undergraduate students, results from the study showed that academic ability, higher educational aspirations, and class attendance were found to be positively and significantly related to

academic performance. Bettencourt *et al*. (1999) conducted a study to examine whether or not adjustment within a particular context would be associated with the development of social identity. The study revealed that grade point average was moderately correlated with academic adjustment, and not social adjustment. The study further showed that social adjustment was highly correlated with academic adjustment (*ibid*).

Pascarella and Terenzini (1991) argued that for most students, the transition to university classroom requires an adjustment of academic habits and expectations. Most students find the university environment challenging: larger classes; a lot of academic work; lecturers use different teaching styles; the volume and frequency of written work are high and the standards are higher. Throughout a period of one semester, Abdullah *et al*. (2009) found that academic success was significantly predicted by academic adjustment, and personal emotional adjustment. Adler *et al*. (2008) noted that poor academic adjustment correlates with poor academic performance, suggesting that academic adjustment is pivotal for desirable educational outcomes. Smith *et al.* (1992) reported that students in the United States of America who sought and received academic support improved their academic performance, and had a greater sense of self-perceived control of academic outcomes. In addition, students developed high self expectations for future academic success (self-efficacy) (*ibid*).

In a sample of 217 students from the Northeastern State College in the United States of America, Reid and Norvilitis (2012) conducted a study to examine academic, circumstantial, and personal predictors of college success. Results from the study

revealed that grade point average was significantly correlated with academic adjustment. In addition, academic adjustment and social adjustment were related to one another. Several other studies conducted by Baker and Sirk (1984, 1999); Zuria *et al*. (2004); as well as Wintre and Yaffe (2000) found that academic adjustment was significantly related to academic performance, suggesting that students who adjust themselves academically tend to attain good educational outcomes.

5.5 Social Support and Social Adjustment of College Students

This study found that social support and social adjustment of college students are positively and significantly related ($r = .485$, $p < .01$). Results of correlation between social support and social adjustment are displayed in Table 4.10. A Comparison between two institutions showed the same trend, implying that social support is an important aspect in college students' social adjustment. Results from this study are consistent with those from Dinger's (1999) study that showed that students needed continued support to become involved in various social activities and that this improved their overall adjustment. The transition to college is difficult for many students and students need support and encouragement to join various organizations and participate in activities to feel like they are part of the university community (Consolvo, 2002). Weir and Okun (1989) noted that contacts with faculty contributed to students' social support networks that invariably predicted social adjustment.

Musselbrook and Dean (2003) conducted a study among 1819 first year students from five Scottish universities during the 2000/01 academic year. Among other findings the study revealed that an environment conducive to mixing and socializing

with other students helped students create an important peer –support network. The study further noted that students living in halls of residence were involved in extracurricular activities that enhanced their support network within their campuses, assisting them to get better integrated into university life (*ibid*). Similarly, Sha Tao *et al*. (2000) explored perceptions of social support among 390 undergraduate students in China and how it was related to coping abilities and adjustment. The study found that social support was related to social adjustment (*ibid*).

Smith (2014) examined variables that predicted academic success among African American college students. The sample consisted of 240 African American freshmen from colleges and universities across the United States of America. Findings from the study showed that students who reported higher scores of social support also reported higher scores of social adjustment. Contrary to the current study, the direction of this relationship indicated that students who felt unsupported academically were likely to seek out social support, thus reporting greater scores of social adjustment. This view was also reported before by Chavous (2005) and Rankin & Reason (2005).

Social support networks appear to be crucial components of both social and general college adjustment. Students who are satisfied with social support tend to have higher scores of both social and emotional adjustment (Cohorn and Giuliano, 1999). Diener (1984) found that social interaction was one of the predictors of social support and happiness among college students. In their study of predictors of adjustment and institutional attachment among 110 first year college students, Cohorn and Giuliano (1999) reported that social adjustment was positively related to

the availability of support networks. In addition, the study revealed that the strongest predictor of social adjustment was the extent to which students made friends (*ibid*). Similarly, Demaray et al. (2005) found that there was a significant relationship between social support and social adjustment, suggesting that supportive networks appear to predict students' social adjustment, and other positive psychosocial outcomes.

5.6 Social Support, Academic Adjustment, and Social Adjustment in Relation to Sex of College Students

The final hypothesis of this study intended to examine how provision of social support, academic adjustment, and social adjustment differed with sex of college students. It was hypothesized that social support provision, academic adjustment, and social adjustment would be related to sex of college students. Pearson Chi-Square tests were performed to determine the relationships among the stated variables.

5.6.1 Social Support Provision and Sex

Findings from the study showed that social support among respondents did not differ significantly with their sex. However, the mean scores and standard deviations for social support by sex showed that female respondents ranked higher in social support than their male counterpart (See Table 4.16). Other studies on social support with young adults have shown that women generally report receiving greater social support than do men during stressful times although both genders benefit from the support they receive (See, for example, Luo, 2006; Schneider *et al*., 2006; Kobus and Reyes, 2000).

In their study on network development among first year college students, Hays and Oxley (1986) found that females relied more on peers for support than males. The study also revealed no difference between males and females concerning utilization of social support from families (*ibid*). In a sample of 233 students from three middle schools in Midwestern school districts (United States of America), Patrick and Ryan (2001) found no significant differences for gender with regard to perceptions of teacher support. However, Way et al. (2007) reported that males had a significantly higher rating of social support than females among middle school students.

Sheung-Tak and Alfred (2004) adopted the Multidimensional Scale of Perceived Social Support (MSPSS) to analyze social support among 2105 High school students in Hong Kong. The study found no significant differences between gender and social support. But analysis based on family and friends showed that girls reported more friends but less family support than boys, and older adolescents also reported less family support than younger ones. Older girls reported the highest level of friends support, and younger boys reported highest level of family support (*ibid*). In another study, Colarossi (2001) reported that adolescent females had a greater number of supportive friends compared to adolescent males.

However, males relied more on family support than females. Demaray *et al*. (2005) conducted a longitudinal study to ascertain the relationship between social support and student adjustment. The sample for the study had 82 students from two public urban middle schools in Illinois (United States of America). Results from the study showed no significance differences between social support and gender but females perceived higher levels of classmate and close friend support than did males. The

study resonated Demaray and Malecki's (2002b) findings which revealed that females had higher levels of perceived social support from more sources than males.

Research examining social support and sex has been somewhat inconclusive (Vaux, 1988), with only a notable difference when comparing sources of social support. It is agreeable among many researchers that under stress, women generally seek support more frequently than men (Matheny, Ashby & Cupp, 2005; Taylor et al., 2000). Under such circumstances, it is possible that higher social support seeking behaviors (or any other coping behaviors) in women result from such disparity of stress perception. Cumsille and Epstein (1994) reported that females were found to receive more social support from their friends than their male counterparts. One explanation could be that females are more emotional as compared to males; thus they might be able to share their feelings more freely and readily with friends, inviting more social support (Ashby & Cupp, 2005).

Socialization practices also may underlie gender differences in social support seeking behaviors. Early socialization practices by parents, peers, and other adults affect interpersonal relationships in children (Barbee *et al*., 1993; Matud, 2004). According to Thorne (1993), parents differ in their treatment and expectations of boys and girls. They often dress boys and girls in different colour clothing, play differently with them, and expect different emotional reactions from them (*ibid*). Block (1973) noted that girls are often taught to empathize, nurture, and affiliate, whereas boys are encouraged to assert independence, compete for hierarchies, and control emotions. De Goede *et al*. (2009) shared this view by reporting that girls tend to form a few close, empathetic relationships higher in mutual disclosure than boys

who tend to have a larger extended friendship groups focused on tasks, competition and conflict.

Day and Livingstone (2003) observed that males have been socialized to be independent and refrain from expressing emotions. These differences may result in differential utilization of social support during stressful situations. Girls tend to perceive more social support from their peers than boys (Bogard, 2005; Nicpon *et al*., 2006). Moreover, women utilize social support in different ways than men. Sarason and colleagues (1983) reported that despite the fact that social support is a protective for both genders, it appears that its effect is stronger in females than males. The association between lack of social support and psychological disorders is more pronounced in women than men. Verger *et al.* (2009), for example, noted that the lack of emotional social support in a sample of French university students was directly associated with distress for women than for men. Bogard (2005) reported that social support from peers was associated with lower levels of depression for boys rather than for girls.

5.6.2 Academic Adjustment and Sex

As noted before, it was assumed that academic adjustment would be significantly related to sex of college students. Results from this study showed that attainment of academic adjustment among respondents was significantly related to their sex. This study confirmed conclusions from other findings that academic adjustment and sex are positively related. Yau and Fong (2014) conducted a study to ascertain gender differences in the relationships among academic, social and psychological adjustments. In a sample of 114 first year undergraduate students from one

university in Hong Kong, the study found a significance difference between gender and academic adjustment (*ibid*). Ivanka et al. (2007) investigated age and gender differences in academic, social and emotional college adjustment among 845 students from the University of Rijeka in Croatia. The study found that female students were better academically and more socially adjusted than males. In another study, Sanja et al. (2010) reported that female students were better academically adjusted to college compared to males.

The fact that females are better academically adjusted to college than males can be attributed to a number of reasons. Larose and Roy (1995) observed that female students have better learning strategies from early age, and they are more consistent and persistent in their pursuit of academic goals. Leonard and Jiang (1999) suggested that females have better study skills than male students. On the other hand, Wainer and Steinberg (1992) asserted that women receive higher grades than men because they work harder and attend class more frequently. In their study, Fergusson et al. (1991) observed that gender differences in classroom behavior may be attributed to the fact that boys have higher rates of disruptive, inattentive behaviors that consequently impair their learning, leading to lower rates of academic success.

5.6.3 Social Adjustment and Sex

This study found that social adjustment and sex of college students were not significantly related. The findings of this study are similar with other consistent research findings indicating that there was no significant relationship between social adjustment and sex among college students. In their study of predictors of adjustment and institutional attachment among 110 first year college students,

Cohorn and Giuliano (1999) reported that social adjustment was not significantly related to sex of respondents. Mukesh (2012) conducted a study of adjustment of college students in relation to gender, program of specialization, and places of residence. The sample had 320 college students from 10 colleges in India. The study found no significant relationship in gender differences in all measures of adjustment (*ibid*).

Nyamayaro and Saravanan (2013) investigated the relationship between adjustment and negative emotional among medical students. The sample consisted of 99 medical students from the International Medical University in Malaysia. Among other findings, the study showed that there were no significant differences in the overall adjustment between males and females. Likewise, there was no significant difference between social adjustment and gender. This study, however, had a small sample size, and that it may not be possible to generalize the findings to other college students. In another study by Leong and Bonz (1997), it was found that there were no significant gender differences in social adjustment. With a sample of 100 respondents in India, Patel and Taviyad (2013) conducted a study to examine the adjustment and academic achievement of high school students.

The study found that gender and social adjustment were significantly related, with male students attaining higher scores than females. Also, the study revealed significant differences between gender and emotional adjustment (*ibid*). Although the study was conducted using a sample from high school students, it gives seminal ideas on the multifaceted nature of adjustment. Similarly, Ganai and Mir (2013) found no significance differences between gender and social adjustment among

college students. The study further showed no significance differences between gender and other dimensions of adjustment (*ibid*).

The finding of this study is also contrary to several other studies that indicate that males have significantly higher levels of overall adjustment compared to females. This implies that the findings from studies on relationship between adjustment and gender are inconsistent throughout. Datu (2012) examined the relationship among personality factors, paternal parenting style and career preference to college adjustment of 200 Filipino college students. The study found that sex of the respondents differed with social adjustment. Abdullah et al. (2009), Enochs and Roland (2006) and Abdullah et al. (2009), found that female students exhibit low social adjustment compared to male students. Cook (1995) reported that female students were found to demonstrate more adjustment problems such as establishing social relationships in campus compared to male students. That was due to the fact that female students were less involved in campus activities and had fewer opportunities to be appointed as leaders in clubs and other organizations at campus (McWhiter, 1997).

5.7 Chapter Summary

This chapter has dwelt on the discussion of findings. The discussion of findings has been done in line with the five research hypotheses. The discussion specifically focused on the study variables, relating the findings with other empirical studies and giving meaning to the current study.

CHAPTER SIX

6.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction to the Chapter

The study's fundamental quest was to examine the relationship between social support, social adjustment, academic adjustment, and academic performance among college students in Tanzania. This chapter gives the general summary of the study, and summary of findings and conclusions. Finally, the chapter presents recommendations for administrative actions, recommendations for further research endeavors, as well as the chapter summary.

6.2 General Summary

This study focused at college students, examining four interrelated variables, namely: social support; academic adjustment; social adjustment; and academic performance. The study had five objectives, and subsequently aimed to test five hypotheses. The Stufflebeam's Context, Input, Process, and Product evaluation model was used to guide the study in explaining the relationships between study variables. The researcher used a correlational research design to examine the relationship among the variables of interest to this study.

Data was collected through rating scales and interviews. Three scales were employed to collect students' information regarding social support, social and academic adjustment. Information regarding respondents' grade point averages was sought from the Offices of the Registrars of the two institutions. The sample was purposely drawn from the College of Business Education and the Institute of Finance Management in Dar es Salaam city, and included 405 undergraduate students and 12

staff. Of these, 259 were male and 158 were female. The sample of this study was drawn from only two colleges such that it limited the generalizability of findings to other colleges and university. However findings from this study may give a clear picture of the complex relationship among variables of study regarding college students in Tanzania.

This study hoped to contribute knowledge to the existing literature on the social adjustment, academic adjustment, and social support, and their effect on college students' academic performance. With the expansion of higher education in Tanzania, and increased enrollment in colleges, the findings of this study shed light on the complex and multifaceted problem of college adjustment, in the Tanzanian cultural setting. The findings of this study could inform college administrators to design appropriate intervention programs to assist students to cope with the demands and challenges they encounter in college environments. This includes college programs designed to facilitate adjustment and prevent psychological disorders that leads to attrition. One key component of the programs to facilitate adjustment, for example, would be to identify students who at risk of adjustment.

6.3 Summary of Findings and Conclusions

6.3.1 Social Support and Academic Performance of College Students

One of the specific objectives of this study was to examine the relationship between social support and academic performance among college students. It was assumed that social support predicted academic performance, such that students who scored high would also excel well in academic domain. Results from this study revealed that social support and academic performance were not significantly related to each

other. From these findings it can be concluded that social support is not a consistent predictor of academic performance among college students.

6.3.2 Social Adjustment and Academic Performance of College Students

This study also intended to explore the relationship between social adjustment and academic performance among college students. The researcher presumed that social adjustment as an important aspect that assists students to navigate well in the college environment and the surrounding community, would be related to academic performance. Correlation analysis using Pearson Product-Moment revealed a positive and significant relationship between social adjustment and academic performance among college students. Results from this study are consistent with other research findings, suggesting that social adjustment and academic performance are positively related. The researcher concludes that social adjustment is a consistent predictor of academic performance among college students.

6.3.3 Academic Adjustment and Academic Performance of College Students

The third objective of this study sought to establish the nature of relationship between academic adjustment and academic performance among college students. It was assumed that college students who fit well in the academic realm who would also excel well in academic work. The relationship between academic adjustment and academic performance was measured using Pearson Product-Moment. Findings from the study showed that academic performance was significantly related to academic adjustment of college students. Thus, it can be concluded that academic adjustment is a consistent predictor of academic success, indicating that college students who adjust themselves academically are likely to perform well in their

studies.

6.3.4 Social Support and Social Adjustment of College Students

The study found that social support and social adjustment were positively and significantly related, suggesting that college students' involvement in various social activities improved their social adjustment. Social support network available to students has been found to be one of the most important factors which affect students' overall adjustment, and each sources of the social support plays a unique role in student adjustment to the college. Students who are able to interact with peers, and build up social network, are also likely to attain social support easily. Thus, attaining adequate levels of social adjustment precipitates students' ability to actively engage in positive interactions with peers, and vice versa.

6.3.5 Social Support, Academic Adjustment, and Social Adjustment in Relation to Sex of College Students

The final endeavor of this study was to examine whether provision of social support, academic adjustment, and social adjustment were related to sex of college students. It was assumed that the provision of social support, attainment of academic adjustment, and social adjustment among college students differed with their sex. Findings showed that social support and social adjustment among college students did not differ significantly with their sex. It can be concluded that sex is not a consistent determinant of social support provision among college students. However, this study revealed that the attainment of academic adjustment among respondents was significantly related to their sex.

6.4 Recommendations for Management Actions

Based on the findings and conclusions of this study, the following recommendations are presented:

a) Although findings from this study revealed that social support is not significantly related to academic performance among college students, it does not imply that interventions designed to improve social support of students should be disregarded. Social support is a crucial component of college adjustment. Enhancing the qualities of student support services can make the campus environment conducive for healthy social interactions. It is recommended that College administrators and other stakeholders should continue focusing on creating good environment and facilitate the availability of social support to students.

b) This study revealed that there was a positive and significant relationship between academic performance and social adjustment, implying that an individual's sense of social connectedness is one of the predictors of academic performance. It is recommended that mechanisms should be instituted to increase students' exposure to and involvement with the college environment. Increasing positive staff-student interactions, and involvement in extracurricular activities, for example, may improve college students' academic performance.

c) One of the objectives of this study sought to investigate the relationship between academic adjustment and academic performance among college students. It was revealed that academic adjustment was positively and significantly related to academic performance. It is recommended that

Colleges remove all kinds of barriers that prevent students from fully participating and engaging in the academic domain. Equipping college students with critical academic skills, for example, may deepen students' involvement in the college academic domain, leading to better educational outcomes.

d) Institutions of higher learning should assist students in identifying and addressing potential barriers to social and academic adjustment. Effective counseling-based interventions, for example, have been found to be effective in assisting students who have difficulties in adjustment. Other appropriate interventions can also be planned to assist students who have problems in coping with demands and challenges of the college environment. The college staff, including lecturers and academic advisors should be more actively involved in orientation programs for students providing the necessary guidance and help to enhance students' adjustment skills and abilities.

6.5 Recommendations for Further Research Endeavors

This study was just a step forward in understanding how social support, academic adjustment, and social adjustment are related to academic performance of college students in Tanzanian cultural setting. Additional research is needed to address some of the questions raised by the current study. The entire sample of this study, for example, was not based on a nationwide sample as respondents were drawn from only two institutions (College of Business Education and the Institute of Finance Management in Dar es Salaam City). This calls for another study with a larger sample to represent a broader population of university and college students in

Tanzania. This section describes four areas for investigation in the future.

a) This study employed a correlational design which cannot establish a causal relation between variables. It is crucial that other studies using different designs be carried out to describe the relationship between social support, adjustment, and academic performance. A qualitative methodology, such as case study, would even probe more the adjustment experiences of college students and their impact on academic success.

b) The current study was not diverse enough to draw substantial inferences with respect to ethnicity and socioeconomic status of students. Future research will have to test a different model with greater diversity so as to provide a more vigorous comparison groups by ethnicity and socioeconomic status of students.

c) Further research should be done to establish variables affecting adjustment among college students in Tanzania.

d) Future studies with larger samples should be conducted to examine the sources of social support among college students in the Tanzanian context.

6.6 Chapter Summary

This chapter has dealt with the summary, conclusions, and made recommendations based on the findings. Summary and conclusions of findings were presented in line with he five research objectives. Recommendations for management actions have been given, as well as areas for further research endeavors.

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APPENDICES

Appendix I: Students' Background Information

1. Registration Number……
2. Sex (Please tick one) Male …… ( ) Female …… ( )
3. Marital status (Please tick one)

a) Single ( )

b) Married ( )

c) Divorced ( )

4. Session (Please tick one)
   a) Full time program ( )
   b) Night/Evening program ( )

5. Age (Please tick one)
   a) Below 20 years ( )
   b) Between 20 to 30 years ( )
   c) Between 31 to 40 years ( )
   d) 41 years to 50 years ( )

6. Mother's level of education (Please tick one)
   a) Primary education ( )
   b) Secondary education ( )
   c) Diploma ( )
   d) Bachelor degree and above ( )

7. Father's level of education (Please tick one)
   a) Primary education ( )
   b) Secondary education ( )
   c) Diploma ( )
   d) Bachelor degree and above ( )

Appendix II: Social Support Scale

I am interested in how you feel about the following statements regarding possible social support that one can get. Read each statement carefully. Please indicate "**strongly agree**" or "**agree**" or "**disagree**" or "**strongly disagree**" depending on how you feel about each statement, by ticking the appropriate box.

S/N	List of statements	Strongly agree	Agree	Disagree	Strongly disagree
1.	I can talk about my problems with my family.				
2.	There is a special person in my family who cares about my feelings.				
3.	There is someone I can talk to about important decisions in my life.				
4.	There are people who I can count on in an emergency.				
5.	I am able to talk about my feelings openly with my friends.				
6.	If I needed money to buy something there is someone I could rely on.				
7.	If I feel lonely, there are several people I can talk to.				
8.	There is always a person at the College who is around when am in need.				
9.	The College staff are ready to assist me when I need help.				
10.	I feel that I have close personal relationships with other students in this College.				
11.	I get support services at the College whenever I am in need.				
12.	Other people respect my skills and abilities.				
13.	I get the assistance I need when doing my class work and other academic assignments.				
14.	I have friends at the College with whom I can share my joys and sorrows.				
15.	I have access to social activities at the College.				
16.	The College rules and regulations are friendly and supportive.				
17.	There are basic facilities at the College to enable me pursue my studies smoothly.				

S/N	List of statements	Strongly agree	Agree	Disagree	Strongly disagree
18.	If I needed to worship there is a mosque/church nearby the College where I can go.				
19.	There is a religious leader at the College with whom I can share my spiritual issues.				
20.	There is a trustworthy person I could turn to for advice if I were having problems.				
21.	There are people who enjoy the same social activities as I do in my College.				
22.	I get the financial support I need.				
23.	There are people that would praise me for whatever good things I do.				
24.	Can easily get legal advice at college.				
25.	Can easily get psychological counseling at college.				

Appendix III: Academic Adjustment Scale

This scale is made up of a list of statements that show how you have academically adjusted to the college environment. Please tick wherever appropriate by choosing "**very true**" or "**somehow true**" or "**not true**" or "**not true at all**" depending on how you feel about each statement.

S/N	List of statements	Very true	somehow true	not true	not true at all
1.	I am satisfied with my first year GPA.				
2.	I am confident I will achieve my goals.				
3.	I am finding academic work at college difficult.				
4.	I have a good study group.				
5.	I have regular contacts with my lecturers to discuss various issues regarding the courses.				
6.	I am not working as hard as I should at my course work.				
7.	My academic goals and purposes are well defined.				
8.	I spend enough time in my academic work.				
9.	Getting a college degree is very important to me.				
10.	I have been very efficient in the use of study time lately.				
11.	I enjoy writing papers for my courses.				
12.	I am really motivated to study hard.				
13.	Sometimes I have doubts regarding the value of a college education.				
14.	I am satisfied with the number and variety of courses available at college.				
15.	Recently I have had trouble concentrating when I try to study.				
16.	I am not doing well enough academically compared to the efforts I put in.				

S/N	List of statements	Very true	somehow true	not true	not true at all
17.	Most of the things I am interested in are not related to any of my course work at college.				
18.	I am satisfied with the quality of courses available at college.				
19.	I am enjoying my academic work at college.				
20.	I am having trouble in doing my homework assignments.				
21.	I am satisfied with my program of courses for this semester.				
22.	I am attending classes regularly.				
23.	I am very satisfied with lecturers I have now in my courses.				
24.	I am quite satisfied with my program of specialization.				
25.	I sometimes get fears of failing examinations.				

Appendix IV: Social Adjustment Scale

This scale is made up of a list of statements on how you have socially adjusted to the college environment. Please tick wherever appropriate by choosing "**very true**" or "**somehow true**" or "**not true**" or "**not true at all**" depending on how you feel about each statement.

S/N	List of statements	Very true	somehow true	not true	not true at all
1.	I feel good being part of the college environment.				
2.	I am having many friends at college.				
3.	I am adjusting well to college.				
4.	I have had informal, personal contacts with college lecturers.				
5.	I am satisfied with non-academic social organized activities at college.				
6.	The fact that I miss my home is a source of difficulty for me now.				
7.	I am satisfied with the variety of extracurricular activities available at college.				
8.	I am getting along very well with my classmates.				
9.	I feel that I have enough social skills to get along well in the college setting.				
10.	I get enough time to participate in sports, games and recreational activities at college.				
11.	I am satisfied with the extent to which I am participating in social activities at college.				
12.	I interact well with students of opposite sex.				
13.	I have been feeling lonely a lot at college lately.				
14.	I feel I have good control over my life situation at college.				
15.	I interact well with college staff.				
16.	Sometimes I feel that I would rather be home than here.				
17.	I have some good friends at college with whom I can talk about my problems.				

S/N	List of statements	Very true	somehow true	not true	not true at all
18.	I am satisfied with the extent to which I am participating in activities organized by the Student Government.				
19.	College life is most interesting.				
20.	I have problems in managing time effectively.				
21.	I get time to have fun and enjoyment outside the college with my friends.				
22.	I am happy about my decision to join this College.				
23.	Sometimes I don't feel safe at the College.				
24.	I am worried about meeting new people at the college.				
25.	I manage to keep in touch with my family.				

Appendix V: Interviews Questions/Issues for Staff Working in the Department/Directorate of Student Affairs and Services

1. What are the possible social support services available to students?
2. Would you tell me any connections between social support and students' academic performance?
3. What are the challenges facing students when trying to adjust socially to college environment?
4. In your opinions, what is the importance of social adjustment to students' college life?
5. The college academic environment is always challenging, and students need to fit in the academic realm to realize their educational goals. What is your experience regarding this?
6. Is there any possible relationship between students' academic adjustment and their academic performance? Why?
7. What are the best ways of assisting students adjust both academically and socially to the college environment?

Appendix VI: The Chi-Square Distribution Table