Gender biases in education and employment and gendered career disadvantages: A case study of university graduates in Tanzania

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ACKNOWLEDGEMENTS

ABSTRACT

Attaining gender equality in all spheres of life remains a big challenge in Tanzania. Utilizing data from a qualitative study of a small sample of employed and unemployed university graduates, this paper explores ways in which gendered attitudes and practices in education and employment may contribute to gendered career disadvantages. We draw on concepts from the socio-cognitive theory of gender development and differentiation to argue that gendered conceptions and roles constructed over a life course of gender differentiated experiences that manifest in gendered attitudes and practices in education and employment disproportionately disadvantage women in career choices and advancement. Findings show a much wider gender gap in science programmes than in the social sciences, and prevalence of gendered attitudes and practices that may impact male and female students differently in education outcomes. Findings further reveal gendered attitudes and practices in the labour market that may reinforce the effect of gendered education outcomes to further disadvantage women in career choices and advancement. The paper concludes by emphasizing the need for measures that go beyond equal opportunity policies to include those that promote awareness in society as a whole of the importance of overcoming gender differentiated processes in all spheres of life.

LIST OF ACRONYMS

B.Com	Bachelor of Commerce
BEST	Basic Education Statistics
CPA	Certified Public Accountant
CV	Curriculum Vitae
EFA	Education For All
ELFS	Enterprise Labour Flexibility and Security
EOP	Equal Opportunity Policies
FAWE	Forum for African Women Educationists
FDIs	Foreign Direct Investments
GPI	Gender Parity Index
GER	Gross Enrolment Ratio
HR	Human Resource
IT	Information Technology
ILFS	Integrated Labour Force Survey
MBA	Masters of Business Administration
NBS	National Bureau of Statistics
SAP	Structural Adjustment Programmes
SSA	Sub Saharan Africa
TGNP	Tanzania Gender Networking Programme
UDSM	University of Dar es Salaam
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNDP	United Nations Development Program
URT	United Republic of Tanzania
WB	World Bank

1.0   INTRODUCTION AND BACKGROUND

Gender inequality in all spheres of life remains an issue of concern in many countries, Tanzania included. In education this is especially the case at the level of higher education, which the present day global context of a knowledge-based economy places high in contributing to economic and social development of any country (UNESCO, 2009; World Bank [WB], 2009). Whereasin Tanzania there have been steady improvement in bridging the gender gap at all levels of education over the years, the gender gap still remains significantly much bigger at higher levels of education. At lower levels, since the year 2000, girls have consistently represented over 48% of the total number of pupils enrolled at primary school level. Indeed in 2009, the Gender Parity Index (GPI) was 1.00 [United Republic of Tanzania (URT), 2010a, data from Basic Education Statistics in Tanzania (BEST), 2000 – 2009],. At secondary school level, Gross Enrolment Ratio (GER) for female students in Forms 1 to 4 increased from 14.3 in 2006 to 39.3 in 2009.

On the other hand, the gender gap in enrolment at the higher education level remains much wider. For example in the academic year 2010/11, only 33.5 percent of students enrolled in public universities were women (URT, 2011). Furthermore, even though overall there has also been noticeable steady increase in female enrolment at the higher education level as well,glaring disparities remain in relation to female enrolment in some of the academic programmes such as engineering, architecture and surveying (Faculty of Science, UDSM cited in Masanja, 2001).

Graduates from institutions of higher education generally seek formal employment in the labour market. The current labour market in Tanzania is operating in a context of an economy that has, over the years, witnessed a rapid integration into the rest of the world as a result of globalisation. This has brought in external influences, which are now contributing to, and sometimes constraining all aspects of national development and well-being. In the economy, there has been increased liberalisation of trade and investment with increasing capital inflows in the form of Foreign Direct Investments (FDIs). Structural Adjustment Programmes (SAPs), instituted in Tanzania since the mid-1980s also had implications on the structure of the labour market as the government which had previously been the main employer now embarked on a retrenchment exercise including freezing of employment for some years, and privatisation of state-owned enterprises. At the same time, the young private sector had no capacity to absorb a large number of job seekers entering the labour market annually [United Nations Development Programme (UNDP), 1999]. All these factors have impacted the labour market in

terms of employment opportunities. This mismatch between the number of job seekers and available jobs has fostered unemployment and underemployment, especially among the youth. Indeed considering that education plays a central role of preparing individuals to join the labour market, under-representation of women in skilled and high level jobs can be attributed to their under-representation in higher levels of education.

In Tanzania, apart from agriculture and domestic work, women are disproportionately under-represented in all other sectors and have a significantly higher unemployment rate in urban areas (URT, 2002; URT, 2007). National employment data disaggregated by occupation show that women are disproportionately under-represented in occupations which require knowledge and skills imparted at the level of higher education such as administrators and professionals (URT, 2007).

Using data from asmall sample qualitative study of employed and unemployed university graduates, this paper examines ways in which gendered attitudes and practices in education and the labour market may contribute to gendered career disadvantages. The paper is structured into five sections. Section one provides an introduction and brief background on education and the labour market in Tanzania. Section two provides an overview of the theoretical approach guiding the analysis, while section three outlines the methodology for the study on which the paper draws. Section four presents the findings of the study and section five discusses the findings and the way forward.

2.0 THEORETICAL APPROACH

Gendered attitudes and practices in both private and public spheres have gendered impacts that result in gendered outcomes. This paper draws on concepts from the Social Cognitive Theory of Gender Development and Differentiation (Bussey& Bandura, 1999), to explore ways in which gendered attitudes and practices in education and the labour market bear on men's and women's career choices and career advancement differently. This theory attributes conceptions men and women hold about themselves and about others to the development and differentiation of people in all aspects of their lives on the basis of gender. This in turn bears on the opportunities and constraints that men and women face in society and influences decisions on their social lives, including the occupational paths they pursue.

The theory considers gender attitudes and practices as imbedded in different societal sub-systems including the family, education and occupations and that these shape men and women's beliefs about their educational and occupational efficacy among others. In education, studies reveal how gender development and differentiation processes manifest themselves. Some of the practices that have been identified include teachers implying in various subtle ways that girls are academically less able than boys (Dweck et al., 1978), and gender biases in career guidance (Fitzgerald & Crites, 1980). These practices reinforce, among other things, students' perceived intellectual efficacy, which shapes the course of their career choices (Bandura et al., 1999). These practices influence girls and boys differently in their career aspirations and options. Evidence abounds on the hierarchical structure of the labour market around the world, whereby sectors, occupations and activities are segregated by sex (Mason & King, 2001).

In the labour market, empirical evidence shows gender-differentiated outcomes in terms of, e.g. gender biases in certain skills. A study using data from Ghana and Tanzania, which shows a wider gender gap in engineering and other science programmes relative to management programmes (Morley et al., 2010) is a case in point. Studies by Frome and Eccles (1998), Furnham et al (2002) and Li (1999), found that stereotypes that men are naturally more talented and interested in math and science were influencing the science, technology, engineering, and math aspirations and achievements of boys and girls, and men and women. Also, ample evidence exists on how gender biases both within and outside the education system are also likely to disproportionately affect women adversely in achievement levels.

Indeed academic achievement is a key factor in labour market outcomes as those with lower academic achievement are generally less attractive to prospective employers.

It is worth noting however, that there are other economic theories such as human capital theory that have been used to explain differences between women and men in labour market outcomes such as occupational sex segregation and wage differentials. Human capital theory attribute differences in occupation to voluntary choices that women and men make (Blauet al., 2002). It has been argued, within this theoretical framework, that women occupy less advantageous positions in the labour market because of their lower investment in skill formation (Cohn, 1996). This theoretical perspective has been criticized for failing to explain, for example, why women do not get equal recognition as men, with the same qualifications and experiencein things like appointment or promotion. Studies show how women in occupations traditionally considered "male" occupations are regarded less competent than their male counterparts in the same positions and they receive less support from peers (Alban-Metcalfe& West, 1991; Davidson and Cooper, 1984; Mascarenhas, 2007).

In this paper we utilise the social cognitive theoretical perspective of gender development and differentiation to argue that gendered conceptions and roles constructed over a life course of gender differentiated experiences that manifest in gendered attitudes and practices in all spheres of life including education and employment disproportionately disadvantage women in career choices and advancement.

3.0   METHODOLOGY

3.1 The Sample

This paper presents and discusses part of the data collected for a study that sought to explore the gendered nature of the education – labour market linkages). The sample for this study comprised of 14 (six males and eight females) unemployed graduates and 14 (five males and nine females) employed graduates who had completed their studies in the past five years. The study also involved four employing organizations and two higher education institutions – one public, one private. Employed and unemployed graduates were sampled using the snowball sampling technique, making sure that the small sample varied by sex and programmes of study. The four employing organizations (a telecommunications company, a large financial institution, a construction company and a parastatal company) were sampled in the city of Dar es Salaam, the aim being to capture, to some extent, a small cross section of employees who employ graduates with varying higher education qualifications. The two higher education institutions were purposively sampled to capture universities enrolling a relatively large number of students and offering a wide range of academic programmes. We selected a private and a public institution as a way of ensuring variation in ownership of higher education institutions. Within each university, five academic programmes were purposively sampled to represent disciplines in which women are severely under-represented and those in which they are relatively better represented.

3.2 Data collection methods

Both primary and secondary data were collected. We used semi-structured questionnaires to interview unemployed and employed graduates. The questionnaires were designed to solicit information on experiences of gendered attitudes and practices while studying in higher education institutions and gendered influences on decisions they made regarding their education and career choices. Effort was made through in-depth probing while administering the questionnaire to capture depth and detail of such experiences. Interview guides were used in face-to-face interviews with senior academic and administrative officials in higher education institutions and managers dealing with recruitment and human resources management in the four employing organisations. In addition to collecting primary data, secondary sources were used to collect data on enrolment, performance and completion trends by sex in the two universities. Data were collected on total enrolment at the university level and also in all five academic programmes covered in each university. For employers, secondary sources were utilised to collect data on recruitment trends.

3.3. Data analysis

Quantitative data on enrolment and performance in selected programmes in the two higher education institutions, and data on recruitment of graduates in selected organizations were interpreted using descriptive methods in graphs and cross tabulations. Qualitative data were coded and sorted into themes and analysed through systematic comparison and contrasting to identify patterns and commonalities and/or differences in experiences. Patton (2002) explains in detailthis method of qualitative data analysis.

We utilised this method to do a systematic comparison of responses by triangulating data sources, i.e. female employed graduates, male employed graduates, male unemployed graduates, female unemployed graduates and employers. The objective was to identify similarities or divergence in the responses of different categories of respondents to similar issues raised in the questionnaires and interview guides, e.g. gender biases while studying in higher education institutions and in employment. We also made comparison of quantitative data obtained through secondary sources with qualitative data to explore whether issues emerging from the qualitative data were supporting observed sex-disaggregated trends, e.g. in enrolment in different academic programmes and performance.

4.0   FINDINGS

4.1   Gendered disparities in enrolment across academic programmes

Data on enrolment revealed an increasing trend for both male and female students at the two universities (Figures 1 and 2). However, data further reveal that the number of female students was lower than that of male students in all the five years covered. Indeed from 2009, enrolment of female students at the public university was increasing at a decreasing rate, resulting into a widening gender gap.

Figure 1: Total number of students enrolled at public university from 2006-2010   **Figure 2: Total number of students enrolled at private university from 2006-2010**
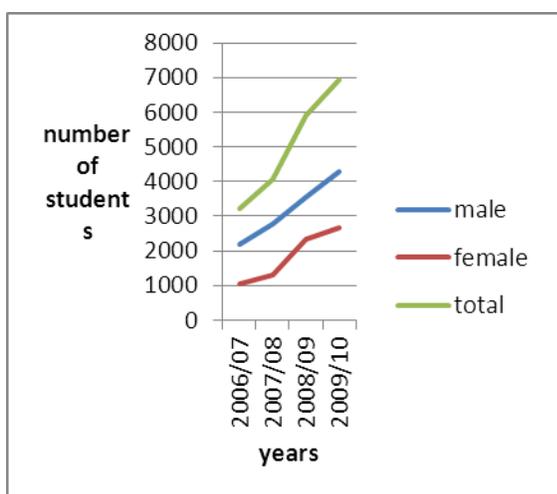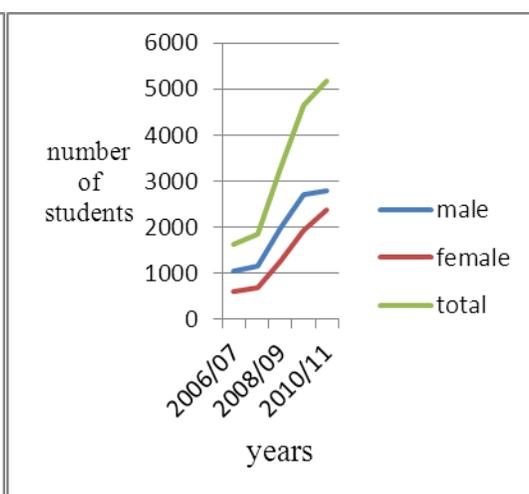
Source: public university records   **Source:**private university records

Analysis of enrolment data in the specific programmes covered in the two universities shows glaring differences between science programmes and the social sciences. First, in both universities, the total number of students in the science programmes has remained significantly lower than the number of enrolled students in the social sciences. Second, the gender gap has remained wider in the science programmes (Figures 3 and 4) compared to social science programmes (Figures 5 and 6). A similar contrast was also observed between other science and social science programmes. Indeed some of the programmes in the social sciences e.g. the sociology programme at the private university (Figure 6) had more female than male students in all five years covered. This was also the case in the Mass Communication course at the same

university.Mascarenhas (2007) points out how a tendency among parents and even teachers to discourage girls taking science subjects at lower levels continues to cause relatively wider disparity between males and females in enrolment and performance in science programmes. The implication here is that the gender gap in occupations requiring different skills of engineering will remain wider compared to occupations that require skills in social science fields of study.

Figure 3: Total number of students enrolled in Civil Engineering at public university from 2006-2010
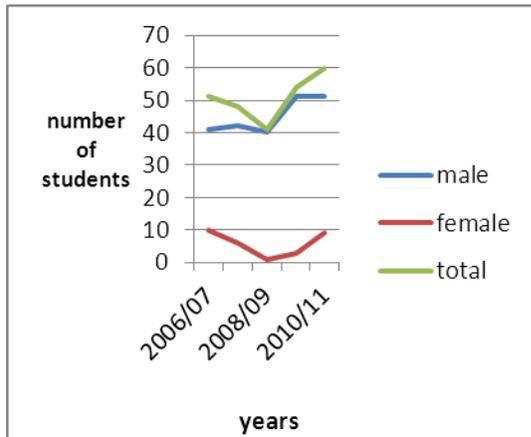
Figure 4: Total number of students enrolled in Computer Science at public university from 2006-2010
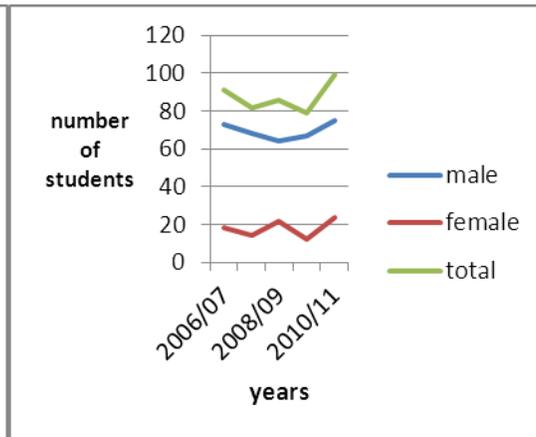
Source: Civil Engineering Department records   **Source**: Computer Science Department records

Figure 5: Total number of students enrolled in Commerce at public university from 2006-2010
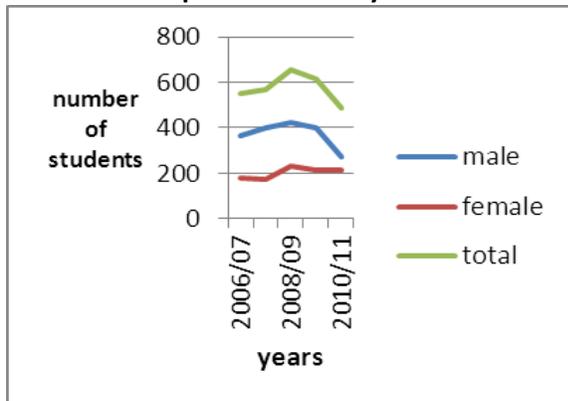
Figure 6: Total number of students enrolled in Sociology at private university from 2006-2010
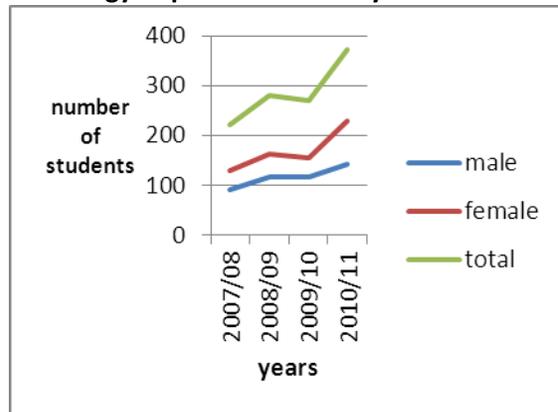

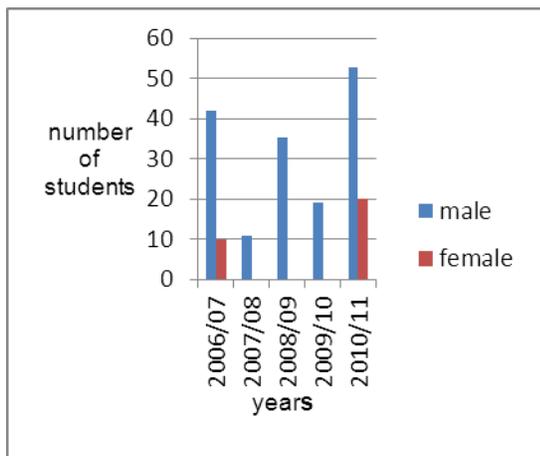**Source**: Commerce Department records   **Source**: private university records

4.2   Performance: Gender differences in some academic programmes

Achievement is generally associated with better employment outcomes. Good performers have an advantage over poor performers in terms of chances of getting a job. Performance as education outcome therefore bears significantly on labour market outcomes in terms of getting a job, especially if there are fewer job opportunities compared to the number of jobseekers. Theories on gender show prevalence of gendered conceptions about academic performance, whereby generally females have been perceived as being incapable of performing as well as their male counterparts. More specifically, female students have been perceived to be academically less able than male students in the science subjects such as engineering. In this study,sex disaggregated data on performance from the two universities visited show mixed results for different years. In Civil Engineering at the public university, performance data over the five-year period (proportion of male and female students passing with upper second or first class) show that female students generally were not performing as well as male students (Figure 7). However, in Computer Science at the same university, in three out of five years for which performance data were collected, the proportion of female students getting upper second or above was larger than that of male students (Figure 8).

Figure 7: Performance in Civil Engineering by sex at public university from 2007-2010

Source: Civil Engineering Department records

Figure 8: Performance in Computer Science by sex at public university from 2007-2010
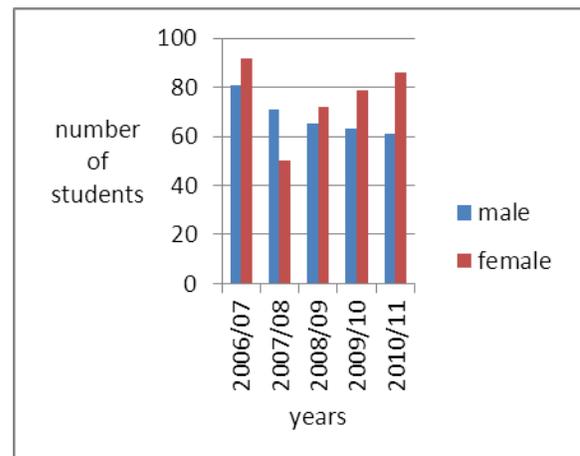
Source: Computer Science Department records

In the social sciences, results were mixed with male students performing better than female students in some years and female students performing better in others. In the Commerce programme at the public university for example, more males (as proportion of total male students) passed at upper second or first class level in three out of the five years for which performance data were collected (Figure 9). In the Mass Communication programme at the private university, more females (as a proportion of total female students) compared to male students got upper second or above in three out of the five years covered (Figure 10). In Sociology, performance data were available for only two years. Female students did relatively better than male students in one year, while male students performed better in the other year.

Figure 9: Performance in Commerce by sex at public university from 2006-2010

Source: Commerce Department records

Figure 10: Performance in Mass Communication by sex at private university from 2006-2010
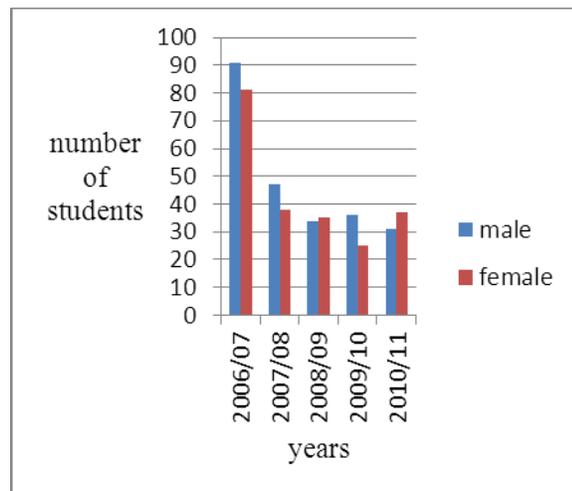
Source: Private university records

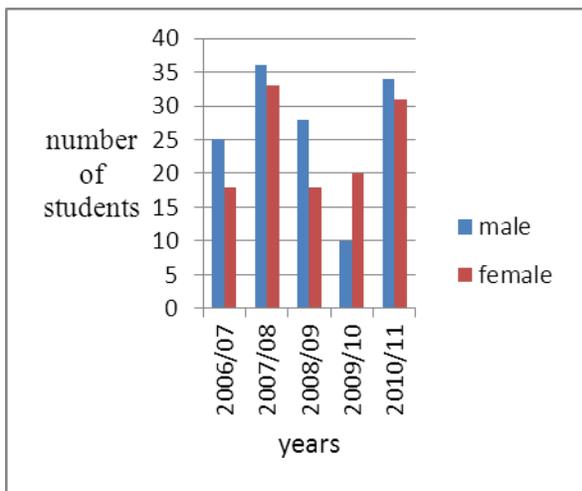Findings on academic performance in this study are consistent with findings in other studies. A study done by Sheard (2009) monitored student's performance and progress from the first year to the final year and found that female students outperformed their male counterparts. Hedjazi and Omidi (2008) found similar evidence whereby female students were outperforming male students in the field of Agricultural Science. These findings suggest that female students are not intellectually weaker than male students as is sometimes perceived (Okafor & Endagon, 2011). Indeed, the findings presented in this paper support what has been argued in other studies - that the gender differences in intellectual capabilities and orientation to certain fields of study may be shaped by gendered attitudes and practices in different spheres of life (Bandura, 1997; Betz & Fitzgerald, 1987; Phillips & Zimmerman, 1990).

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The question however is whether students also experience gendered attitudes and practices in higher learning institutions that may have a gender effect on academic performance and job opportunities in the labour market. Below we thus also present findings of the study onexperiences of gendered attitudes and practices by male and female students while studying at higher learning institutions.

In line with the aims of the study, we asked both the employed and unemployed respondents whether they experienced any gendered attitudes and/or practices while studying in higher education institutions. The majority of respondents stated that they had not experienced gender biases both inside and outside classrooms. Five out of 14 unemployed graduates did however say they had experienced gender biases while studying at university. One male respondent explained how male students would form "males only" discussion groups:

> *"In my course, smart male students used to isolate themselves in group discussions. They did not want to mix with females. For example, they would say girls have many things to do…and go to discussions late." **Unemployed male graduate***

The same male respondent further explained how this made female students to lose confidence, noting that initially they would be active participants in discussion groups formed by lecturers, but would later become passive.

A female respondent narrated a similar experience:

> *"…Some male students did not like to have females in their discussion groups, saying we do not participate in group discussions. They felt they were the only ones contributing to group discussions while females kept quiet and only listened."***Unemployed female graduate**

Another female respondent elaborated on why she felt male students did not treat female students well:

> *"They saw females as not being serious students. Even from discussions, male students looked down on us when we participated in discussions.…"***Unemployed female graduate**

The above account demonstrates how some male students did not take female students seriously and even doubted their academic capacity. Similarly however, some female students also had gendered conceptions about themselves. For example, the same unemployed female

graduate who had narrated experiences of genderedpractices in group discussions further observed:

> *"…For instance, you could find seven out of ten group assignments being presented by male students. Female students would say male students present better than females."*

A male respondent also shifted the blame regarding gender differentiated practices to females' lack of self-confidence:

> *"We treated them equally. The main problem was the female students themselves. They had no confidence in themselves. They would say we know more things than they do. During discussions they kept quiet, waiting for male students to discuss."***Unemployed male graduate**

Other studies have found similar findings. For example, Seymour (1995) found female students who had just started their first year of undergraduate studies had higher levels of confidence, which however soon dropped. Other studies also show how in patriarchal societies women tend to be passive, rarely challenging issues, while for men being more aggressive is common (Wells 2008). Such differentiation therefore often manifests itself in different arenas, including education. A discussion on traditions and customs in Tanzania by Mascarenhas (2007) may help to explain what underlies the situation of gendered practices among male and female students presented above. She describes traditions that are premised on male power and unequal gender roles whereby women are considered the inferior sex not only by men but also by the women themselves. She further observes that in such traditions women often do not voice their views in meetings involving men and women.

4.3　　Fields of study and gendered experiences

We showed in section 4.1 how the gender gap in enrolment remains wide in science subjects such as engineering where female students are highly under-represented. Basing on theory and earlier empirical evidence, we had sought to explore gendered experiences in education and other spheres of life that might have influenced sampled graduates in decisions regarding fields of study, and whether this was being reinforced by gendered attitudes about academic programmes in which they were already enrolled at higher education institutions.

In line with this, we asked employed and unemployed graduates whether anybody had influenced their choice of subjects of study. Seven respondents stated that someone had either influenced or tried to influence their choice of subjects of study. However, the advice given was largely intended to orient them towards courses in which students acquired knowledge and skills that are relatively in high demand in the labour market. However, emulating what parents and close relatives had studied was also a factor in deciding on areas of study:

> *"I admired what my mother was doing. She is an accountant. She holds a CPA, so she influenced me to study something relating to what she studied."* **Employed female graduate**

A point worth noting here is influence of parents as role models on decisions and choices that their children make in life, including decisions on fields of study and career paths. Indeed this is consistent with other studies that have found a positive relationship between girls' career aspirations and their mothers' educational achievement (Signer & Saldana, 2001).

Gendered conceptions about academic programmeswere also evident, especially in relation to female students enrolledin programmes that traditionally have been dominated by males. A female graduate who had secured a scholarship to study engineering attested to this:

> *"…Our class had only five girls. Other students used to make jokes at female students enrolled in engineering courses. They told us we were like men."***Employed female graduate**

This finding is consistent with theory and empirical evidence from other studies. Mascarenhas (2007) observes how boys and girls are socialised differently and adopt corresponding gender roles at a very young age. As a result girls are not expected to venture into fields of study that societal norms and values, which are largely patriarchal, have ascribed as in the male domain.

4.4   Gendered attitudes and practices in the labour market

In the study we also explored ways in which the labour market is itself gendered and therefore reinforcing the gendered effect of gendered education outcomes. We first summarise the highly competitive nature of the labour market that graduates had to enter, as this in itself may reinforce gendered outcomes in the labour market.

4.4.1   Gendered implications of intense competition in job search

Findings of the study showed that there was stiff competition amongst both male and female graduates for jobs. This was evidenced by the extended periods of time graduates spent searching for employment after graduation, and the rate of under-employment among this group. Data in Table 1 show the number of applications unemployed graduates had sent out since they started searching for employment and the number of times they were called for interviews. Unemployed male graduates were overall more proactive in sending out applications, with one male graduate having sent out 150 applications since 2009. A female unemployed graduate who started sending out applications in the same year had sent only 50 applications.

Table 1: Number of job applications by unemployed graduates since they started applying for jobs and number of times called for interviews (in brackets) by sex

Year the graduate began job search	Number of job applications	
	Male	Female
2011	60 (6)	30 (5)
	60 (5)	
	97 (1)	
2010	15 (4)	30 (4)
	70 (20)	15 (4)
		8 (1)
		50 (3)
2009	150 (10)	50 (3)
2008		80 (6)

Source: Field interviews

Stiff competition for jobs was reflected in terms of the types of jobs graduates were getting into compared to the training and skills they had acquired in higher education. Analysis of the qualifications of those who were recruited in relation to their entry positions shows that many were getting into jobs that demanded different knowledge and skills compared to those they acquired in higher education. Table 2, which shows a few selected positions in the financial institution that we sampled for this study, indicates that employees held positions outside of their fields of study. Indeed the majority of interviewed unemployed graduates did also indicate readiness to take up any job even if not related to their fields of study.

A survey done in 37 countries in Africa, Tanzania included, (African Development Bank Group et al., 2012), show that unemployment rates varied by fields of study. Graduates in technical fields such as engineering were found to have less problems finding employment than their counterparts in social sciences. Yet these are fields of study where females are highly under-represented.

Table 2: Sample of job positions held by selected employees in a financial institution by sex and education qualification

Job Title	Sex	Education Levels
Clerk (Security Documents)	Male	Bachelor of Laws (LLB)
Bank Clerk	Female	BA Community Development
Bank Clerk	Female	MA Business Administration
Teller	Female	Bachelor of Business Administration (Marketing)
Clerk (Payments)	Male	BA Environmental Management
Customer Care Officer	Male	Bachelor of Commerce
Records Officer	Male	Bachelor in Business Administration
Clerk (Credit)	Female	BA Public Administration.
Bank Officer (Customer Experience)	Male	BA Geography and Environmental Studies

Source: Financial institution recruitment records

Knowing the desperation of job seekers, some employers were using less conventional and sometimes unethical ways in the selection of applicants for interviews and eventually recruitment, some of which had gendered implications. First, competition for jobs was tough such that knowing someone had more or less become the sole criterion for getting a job. All unemployed graduates believed that favouritism was widespread and thought the majority of employed graduates got jobs because someone assisted them. Employed graduates also confirmed these views. Asked how they got their jobs, almost all of them said it was through knowing someone inside the organization such as a relative, a friend, a former classmate, a schoolmate, a friend of a relative, or a friend of a friend. Employers on their part mentioned headhunting as one of the main methods they used in recruitment of employees. Second, as already pointed out, it was revealed that some employers sought sexual favours in exchange for offering employment. For example, one female graduate had this to say:

> *"During my job search, I came across a male human resources manager who called me on Sunday evening for an interview. He did not say anything related to work. Instead he*

wanted sexual favours. I refused. He gave me a second option of giving him TZS 200,000. I did not have that amount of money. I did not get the job."

Similar to the above account, another unemployed female graduate also noted that she was asked during a job interview for a bribe and when she stated that she did not have money, the interviewer then demanded for sexual favours as an alternative condition for obtaining work.

4.4.2   Gendered decisions in recruitment and retention

In exploring ways in which gendered attitudes and practices in the labour market were contributing to gendered labour market outcomes we asked both unemployed and employed graduates whether, among other things, they thought sex of a person has a bearing on labour market outcomes such as getting recruited and retained in a job. Almost all unemployed respondents thought being male or female played a key role in getting recruited. Examples given include the tendency to recruit men for jobs that require physical strength, and deciding not to recruit women because of their multiple roles at home and at work. A few quotes on what respondents said on these issues are presented below:

*"In the case of gender, society has perceptions about gender roles whereby there are specific activities for males and females. For example, nursing and attending to passengers on aircrafts are perceived to be female jobs, whereas doctors and heavy truck drivers are perceived to be male jobs.***" Unemployed female graduate.**

*''… In the case of sex, I have never heard a female working in mining shafts and there are very few nurses who are males. All this is because of gender roles constructed by society. However, nowadays you will find females doing the so-called "male jobs" like driving heavy trucks to different regions within and outside the country.''***Another unemployed female graduate.**

The same second respondent narrated an incident that happened to her friend:

"My friend was not employed because she had a child and the nature of work demands her to work till night. She was asked how she could work till night while she has a child at home. The next day, they called her to tell her she was not offered the job."

Employed graduates expressed similar views when asked whether they thought there were challenges that were sex-specific in recruitment and retention of employees. Upheld gendered

conceptions about jobs that are physically very demanding are well illustrated by views of a respondent working for a telecommunications company:

> "…We have no female in the department (Base Station System Engineering). Climbing towers is very difficult for women." **Employed male graduate.**

The male respondent went on to say that it is difficult for women to be in this field of engineering but they can be found in other less physically demanding fields such as Information Technology (IT) System Administration. An employer in the construction company we involved in this study also expressed similar views:

> "There are no jobs for which we prefer one sex over another, but sometimes the situation itself dictates outcomes that seem to be gender biased. We actually used to have female engineers in the field of quantity survey when we were undertaking construction of buildings. But now we do not have female engineers in road construction projects. Road construction involves working in remote areas under very harsh conditions. So perhaps that is why female engineers might find this not a conducive working environment." **Employer at a construction company.**

A senior human resources manager who was being interviewed on the employer's side explained how gender issues can be a challenge when deciding on whom to recruit, despite company commitment to ensure gender equality in entry and retention:

> "Yes, there are challenges. For example, I have eight people in my department, six of whom are women. Two are away on maternity leave and the remaining four are pregnant. I also have a colleague in one of our branches who called to report that the two members of staff assigned to the front desk are both supposed to go on maternity leave." **Senior HR manager, financial institution.**

We asked employed graduates about the challenges they face asemployees. One young female employeein a financial institution who was at the time of our visit also enrolled in evening classes for a degree in Master of Business Administration (MBA) said:

> "I am working full time, going to school and with family to take care of. I work from 8 am to 5 pm., go to school until 9 pm., and then I have to go home and take care of young children. I usually go to bed around midnight and have to be up by 5 am." **Employed female graduate.**

A male respondent in a Telecommunication company saw women being absent from work because of their reproductive role as a challeng**e:**

> "*Yes, if women are married and go on maternity leave it becomes a challenge*."

The examples above illustrate how even after they get jobs, the disproportionate burden of work at home borne by women constrains their career advancement.Indeed studies abound that describe similar challenges that workingwomen face. For example, empirical evidence from time-use studies in South Africa, Madagascar, Mauritius and Benin show that men were spending significantly less time on domestic work compared to women (Charmes, J., 2006). Such significant differences between men and women in time-use are attributed to cultural norms that uphold a rigid division of labour between men and women (Kes & Swaminahan, 2006).

A study done in Tanzania (Feinstein et al. 2010) give ample examples of how gender norms that encompass traditional roles for men and women make the latter responsible for all domestic work. Indeed women's household and care giving roles have been found to inhibit their entry and retention in the labour market. (Bond, 2004). In the Enterprise Labour Flexibility and Security (ELFS) surveys, women were found more likely to report stress in their jobs than men. A possible explanation provided is the pressure women are under from having to juggle both wage and care work at home. Indeed in most countries covered by the people's security surveys, probability of upward mobility was greater for men than for women. The reverse was the case for downward mobility **(**http://www.ilo.org/public/english/protection/ses/download/docs/sheet_no4.pd **.**

In addition to women being disadvantaged by their multiple roles at home and at work, the data also revealed how women are also often perceived not as capable as men. Explaining the barriers she faces in her marketing job in a telecommunications company, a female employee said:

> "*Men think they know more and look down on women. So if you are not tough you get swept under the water. Women end up being frustrated and feel they are not valued even if they are in high positions. (You have to be aggressive sometimes to be heard, you need to prove yourself*. Female respondent in a Telecommunications company."

A female pre-sales project manager in the same company had this to say on the same question:

> *"Sometimes you feel there are biases. We are surrounded by a lot of men and you feel there are too many. When you want information from your male colleagues they don't give it to you, but if a male colleague goes to ask for it on your behalf, they provide the information. So it is like what you say is not taken seriously."*

A female Human Resources Officer in the public institution shared a similar experience when asked whether she thought they are sex-specific challenges in *employment:*

> *"Yes, especially in a sensitive department like mine. When you are in disciplinary committee meetings some male members of the committee usually do not easily agree when you make a point."*

A female water engineer in a position of project officer also shared a similar challenge:

> *"Yes, male engineers do not trust that women can do this kind of a job. May be because of the number of females in the section, but we always prove them wrong."*

5.0   DISCUSSION AND CONCLUSION

This paper has attempted to explore ways in which gender attitudes and practices in education and the work place contribute to gendered career disadvantages. Drawing on the Social Cognitive Theory of Gender Development and Differentiation, the paper has specifically sought to illustrate how gendered norms and values people uphold that emanate from earlier gendered experiences in all spheres of life foster gendered attitudes and practices in education and the labour market, which, in turn, contribute to gendered career disadvantages.

This study has revealed a much wider gender gap in enrolment in science programmes such as engineering than in social science programmes. Further, while sex disaagregated data on performance show mixed results in the social sciences over the five years covered, in civil and electrical engineering programmes the proportion of female students passing with first class or upper second was consistently lower than that of male students in all five years. It is worth noting that these are programmes which have long been stereotyped male subjects. This persistent trend indeed continues to reinforce gendered attitudes on differences in aptitude for different subjects of study.

This paper has also revealed prevalence of gendered attitudes and practices in higher education institutions that may work to perpetuate gendered education outcomes. Gendered remarks, e.g. saying female students in engineering are like mencan de-motivate and demoralise female students and it can be a disincentive for them to encourage other females to get into science programmes. Recognising the existing linkages between education and employment, it is also evident that this is likely to contribute to continued severe under-representation of females in male stereotyped occupations such as engineering. Yet these are areas where more jobs are likely to be created in the current age of science and technology. Further, gendered practices in the classroom e.g. male students excluding female students from their discussion groups can erode confidence in female students. This may in turn disproportionately disadvantage females in job search and recruitment processes.

The study further revealed gendered attitudes and practices in the labour market as well. One example relates to the concerns expressed by employers about challenges faced when women have to go on maternity leave that illustrates ways in which women's reproductive and care giving role can contribute to gender biases inrecruitment and promotion decisions by employers. A study by Feinstein et al (2010) points out how gender norms in Tanzania are very traditional, with men not expected to take on household responsibilities, despite the fact that

many women are also getting jobs and working outside their homes. Indeed it has been argued that "until such time domestic work is performed more equally by women and men, the gender gap in occupations is likely to continue (Loughlin, 1999).

Another example of gendered attitudes and practices in the labour market relates to the views that were expressed by both employers and employed graduates aboutwhat women can do or cope with and what not. Such perceptions and attitudes may indeed have a negative effect on women's confidence about their capabilities in certain occupations. Spme studies found children showing gender-linked conduct at an early age (Bandura, Ross and Ross (1961; Bussey and Bandura, 1992). Indeed this is not surprising as other studies have shown that parents adopt gender-linked conduct in raising their children and therefore influence children's gender development (Huston, 1983; Zahn-Waxler, Cole and Barrett, 1991.This may be part of the explanation of differences between males' and females' perceived self-efficacy in different capacities. Explaining about self-efficacy which he defines as "the belief in one's capabilities to organise and execute the course of action required to manage prospective situations,"(Bandura (1995, 1997) explains how those with a weak sense of self efficacy tend to lose confidence in personal abilities quickly and believe that difficult tasks are beyond their capabilities. Furthermore, Bussey and Bandura (1999) observe how people predict their own outcomes not only based on their own experiences but also on the observed outcomes experienced by others and being aware of the likely consequences of behaving contrary to expected behaviour. People would thus tend to avoid behaving in ways or taking courses of action for which they think they may be sanctioned.

The postulations above may help to explain the continued much more glaring under-representation of females in science programmes such as engineering hence their continued under-representation in occupations that require such technical skills. Indeed one may understand why women may continue to avoid pursuing studies that would orient them towards occupations that are seen as male domain. Why get into an academic programme and then be ridiculed by peers that "you are like a man?" Or why get into a programme that will orient you to male stereotyped occupations where male co-workers will never see you as their equal or management consider you as capable as your male counterparts? These questions are indicative of how differences between men and women are socially prescribed through norms that define behaviour and roles on the basis of gender. These norms continue to disadvantage women in all private and public spheres including education and the labour market.

5.1 Way Forward

The findings presented and discussed in this paper illustrate how gendered attitudes and practices in both the education and labour market sub-systems continue to have gendered effects on career choices and career advancement.It is apparent that such attitudes and practices are acquired overtime from earlier experiences. Overcoming them thus requires concerted efforts at all levels to put in place effective measures that discourage gender differentiated processes and promote avenues of equal opportunity for boys and girls, and men and women. We suggest below what such effort may involve.

- Ensuring that sex-disaggregated data to inform policy and action are readily available not only at the aggregate institutional level but also for specific academic programmes. This is due to the fact that statistics are necessary in informing policies and promoting action. Readily available sex disaggregated data showing inter programme differences is very important for the design of appropriate targeted interventions to promote gender equality in all academic programmes.

- Taking action beyond policy and legal frameworks: Theory and empirical evidence has revealed how choices that women and men make in life are influenced by gender biases they experience throughout their life courses in both private and public spheres. Indeed gender biases are deep rooted at all levels in different spheres of life and Equal Opportunity Policies (EOP) and legal provisions alone may not be sufficient to bring about gender equality in different arenas including career choices and advancement. Effective measures to address gender biases should therefore go beyond having appropriate policy and regulatory frameworks in place, to effective community involvement in promoting gender equality. Civil Society Organisations (CSOs) should take up a more pro-active role in raising awareness in communities on the adverse implications of gender inequality not only at the individual level but also to society as a whole. CSOs will be able to play a more effective role if there will be strong political will to support their efforts. .

- Enhancing the mentoring role: The analysis and discussion in this paper show how taking up non-traditional courses and therefore non-traditional careers remains a big challenge to women. One way to promote women's participation in careers that are traditionally considered 'male' is to advocate for a more pro-active role by mentors. The few women who have entered in non-traditional careers should play an advocacy role to encourage and help to enhance confidence of other women to pursue non-traditional careers.

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