

Technological Innovators and Gender Roles at Accra Polytechnic, Ghana

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Abstract

Polytechnic education serves as a platform for providing opportunities in skills development, applied research and dissemination of research findings which is crucial for technological innovation and nation building. Gender relationships in Ghana are socially constructed and learned through socialization processes. In Ghana, women and men are assigned different and unequal responsibilities and opportunities to contribute in decision making. Women at Accra Polytechnic are negotiating towards technological innovation to help sustain the educational development in the Polytechnic. Women have taken responsible positions as: Registrars, Senior Lecturers, Lecturers, Public Relations Officers and Human Resource Managers. These women have contributed to the innovation of a liquid smoke extractor, an all-purpose loom for weaving a 70-piece fabric at a go, an 'exercycle' for synchronized washing and exercising the body. The study examines the theory of gender discourse as a theoretical frame using historical analysis. The existing structures within both the Ghanaian society and the Polytechnic are patriarchal and the structures turn to focus more on men than on women in the various sectors of life. To examine the issues, data is collected through primary and secondary sources and research is through observation, administration of questionnaires and interviews. From the fieldwork, I discovered that the female staff at Accra Polytechnic has negotiated and they have been involved in the promotion of social change and technological advancement.

KeyWords: *Women, Patriarchy, Gender Roles, Technological Innovation*

Introduction

Polytechnic education plays a crucial role in technological innovation and national development in Ghana. It serves as a platform for providing opportunities for skills development, applied research and publication for research findings. A nation can only thrive on well-educated and skilled workforce. This research investigates the multiple roles of females and their involvement in technological innovation that promotes social change in role performance at Accra Polytechnic. *Despite the differences and inequalities between women and men in responsibilities in Ghana*, women leaders at Accra Polytechnic are playing multiple roles due to social change in the African society. However, they encounter some major challenges based on socio-cultural considerations which should be critically looked at for technological innovation. The Accra Polytechnic of Ghana has a vision and a mission which all her members aspire to achieve. It is the overall perception of the institution and its five year strategic plan in which women are seen to be part. What the mission statement and the strategic plan seek to do is that women whose population outnumber men contribute directly or indirectly to the educational growth and the development of the institution and the Ghanaian society as a whole.

The vision and mission of Accra Polytechnic states that ‘..... it is a centre of excellence for teaching, learning, and research and it provides life-transforming opportunities and experiences for students through teaching, entrepreneurial skills development and research in the fields of Applied Sciences, Engineering, Technology, Applied Arts and Business for the benefit of society’ and the five year strategic plan (2013-2018), which aims at achieving the vision of the Polytechnic through thematic areas like ‘..... Academic, Research, Innovation and Publication, Community and extension Services, Linkages and Collaborations, Human Resource Development, Administration, Institutional Governance, Revenue Generation, Infrastructure Development and Financial Management....’ includes women.

The Polytechnic’s mission calls on the institution to involve both men and women in the social, educational, health, and political aspects of life. As a result, men and women have been performing a lot of roles at Accra Polytechnic since it attained the tertiary status in the 1990s. As the case may be with their men counterpart, women have taken such leadership positions as lecturers, Examination Officers, Human Resource Managers, Registrars, Auditors, Head of Departments, Public Relations Officers, Academic and Admissions HOD’S and HOU’S, Counsellors and some have been members of the Academic Board. Even though the system appears to be an all inclusive role performance, one finds it difficult to link the same with women aspiring to the topmost decision making positions. This is because despite the multiple roles of the women leaders, the Deans, Vice rector and Rector Positions seem to be patriarchal dominance and thus, socially affect women attainment of the topmost leadership positions. There seem to be silence on the fact that there is technological innovation which has brought social change in the Ghanaian society and as such, women are performing equal roles with their male counterparts at the Polytechnic. Fausta Ganaa, the public relations officer of Accra Polytechnic highlighted on theory and practice at Accra Polytechnic, (Ghanaian Daily Graphic, 2014, p. 34). Ganaa, comments that Ghana is ‘crying’ for an industrial take-off and the need for graduates with practical ability. In her paper, she thinks it is the duty of the polytechnics to carry out their mandates of producing middle-manpower graduates to respond to the demands of the challenges that face us as a country and for that matter the world, regardless of gender variations. The Accra Polytechnic Exhibition and Poster Conference on the theme, “Polytechnic Education: The Catalyst of Ghana’s Industrial Development” emphasized creativity and innovation. Faculty members and students of fifteen (15) academic departments displayed close to eighty (80) research posters and their related exhibits is an example to talk about.

They displayed exhibits as a Liquid Smoke extracted from every-day smoke to make up for the problem of traditionally smoked fishes and their subsequent rejection in the European Market due to the presence of carcinogenic compounds on them, the Design and Construction of an All-Purpose Loom that is capable of weaving a 70-Piece fabric at a go and the Design and Construction of an “Exercycle” for synchronized washing and exercising of the body which are innovations that fulfills the mission of the Polytechnic.

The students from the Electricals/Electronic Department who are also taught by female lecturers exhibited Security Alarm Systems, Low Cost Automatic Change – Overs, Mobile Phone-Controlled Remote Monitoring and Control Pumping Systems, Low Cost Hearing Aid and an Electronic Mixer for Audio Amplifiers.

The benefits of the technological innovations at the Exhibition and Poster Conference were enormous because the theory and creative thinking and the considerations the researchers gave to local factors in their designs, construction and applications are encouraging especially when all the exhibits were made from locally available materials emphasizing on technological innovation at Accra Polytechnic.

A student from the Mechanical Engineering Department innovated and exhibited a “Fuel-Less” Generator which runs on a battery charged internally at a required rate with an in-built step-up transformer. That saves the environment and mitigates the effect of global warming that arises with the burning of such fossil fuel like gasoline or diesel by existing generators.

Students from the Computer Science Department under the leadership of female lecturers also exhibited works of applications, e-vehicle rental and e-voting. The increasing role that information and communication technologies (ICT) play in all institutions like Accra Polytechnic demands for ICT skilled workers (Chin & Chang, 2011). The demand for specialized staff has also increased significantly and it is noticeable because young people are encouraged to study ICT and choose ICT as a career. (Chin & Chang, 2011). Organizations experience increased pressure to value diversity in employment in order to attract a diverse customer base on our increasingly global marketplace. This trend leads to the exploitation of talents represented by women and men alike and help them gain access to the top positions in organizations (Gumbus & Grodzinsky, 2004). However, in meeting promotional criteria, women are to break through the glass ceiling in ICT, networking opportunities with other females, mentoring by senior women, assignments that are visible and of high importance, and being technologically competent. These characteristics are noticed in a few women within the managerial level of the polytechnic environment.

Theory and Method

This study examines the theory of gender discourse as a theoretical frame using historical analysis. The existing structures within both the Polytechnic and the Ghanaian society are patriarchal and the structures turn to focus more on men than on women in the various sectors of life. This type of theory has been described by some scholars as feminist theory. Russell, a feminist, defines feminism as ‘the political theory and practice that struggles to free all women: Women of colour, working-class women, poor women...’ (Russell, 1999, p.57) In effect, feminism is about challenging the paradigm, calling for a change and equality. It refers to movements aimed at defining, establishing and asserting equal political, economic and social rights and equal opportunities for women. Thus, feminism advocates that women need to emerge as full human beings liberated from all forces which have kept them in subjugation. It can be explained that feminism represents a search for liberation from all forms of dehumanization on the part of those who advocate full human personhood for every race, class, sex, sexual orientation, ability and age.

Mercy Oduyoye argues that feminism ‘has become the shorthand for the proclamation that women’s experience should become an integral part of what goes into the definition of being human.’(Oduyoye, 2010, p. 121) She further explains that feminism is not the word for the female but as a part of the whole movement geared toward liberating the human community from entrenched attitudes and structures that can only operate if dichotomies and hierarchies are maintained. (Oduyoye, 2002, p. 90)

Oduyoye (1986) argues that, “women’s experiences should become an integral part of what goes into the definition of being human” (p.121). She argues that both men and women should be given equal opportunity to work together as partners in order to liberate the human community from entrenched attitudinal structures and to promote technological innovation (Oduyoye, 2011).

Gender based segregation is largely evident in the socio-economic activities, patterns and roles set for women and men in traditional African societies. Thus, women were not only prevented from occupying certain societal positions in the society because of their sex, but also assigned different roles that centre on the home. Thus, Oduyoye argues that “in Africa, women make pots which are sold cheaply; men make ritual objects and carvings”.

Women and social change

Sackey, in her *New Directions in Gender and Religion*, examines the new dimension in gender relations in Africa as concerns women in leadership positions in institutions. She dwells on how women have managed to make a breakthrough or what she termed a ‘reclaim’ which is not new to the Ghanaian/African. According to Sackey, women are not new when it comes to leadership positions in West Africa. Citing examples from Akan women in Ghana, and Igbo and Yoruba women in Nigeria, B. Sackey recounted that women have over the years enjoyed a high status of authority in socio-political and economic realms; (Sackey, 2006, p.vii). At Accra Polytechnic, women have been Registrars, Heads of Department, Lecturers, Auditors, Public Relations Officers, Heads of Academic and Admissions etc.

According to Sackey, women particularly in Africa for example, have been involved in issues affecting the nation which have brought them into ‘the high echelons of decision-making bodies’. Today, some women members, she observed, are directly involved in political decision-making in their capacity as members of parliament, negating the common ideas that women are generally apolitical. In spite of all these achievements, the statuses of women leaders in the various institutions have been challenged.

Women are prevented from occupying certain hierarchical positions because of their sex and this is due to the socio-cultural situations in which they find themselves. In her book *Beads and Strands*, Oduyoye reflects on the position of the African woman and the roles they play in the society. According to her, “the position of women in Africa today within the wider society is normally prescribed by what is deemed to be beneficial to the welfare of the whole community of women and men” (Oduyoye, 2002, p.78). According to Oduyoye, issues of equality cannot be adequately spoken of in terms of African culture. The culture, she said, is replete of gender equality and fairness. This is particularly so because, according to her, role differentiations in Africa are clear and are not meant to be valued hierarchically (Oduyoye, 2002, p.79). According to Oduyoye, even though the African Culture from its very beginning has allowed women to be in charge of shrines and cultic centres, it is also observable that there are more women in the secondary roles of mediums and cultic dancers than there are women who serve as high priestesses of shrines or as healers. What is even more noisome, she observes, is that there are more women who serve as clients of the divinities of the cults (Oduyoye, 2002, p.78). Such cultural or traditional notions of women’s “religious responsibility” are canned into the institutions. Women, notwithstanding their equal or transcendent potentials, are made to play second to men. Women who rise up and challenge or take up the challenge are resisted not only by men, but even by their own colleague women due to the dominant socio-cultural sexual differentiations.

Some scholars argue that within the African socio-cultural context patriarchal system is men – centred thus, Labeodan argues that:

The patriarchal system is held in high esteem in most African Societies. As a result of this, women... are to be seen and not heard... there is so much suppression and oppression of women by men who are supported by the cultures..... They used certain facts about the physiology of

man and woman as the basis for constituting a set of identities that work to empower men and disempower women. (Labeodan, 2013, p.121).

She explains that the roles assigned to women are very much related to the cultural and historical traditions that try to place women in the domestic domain that they are supposed to be home makers and nurturers of the family, including the husband and children. E. Martey for example, interprets this, the fact that women's roles are basically restricted to the home as a type of injustice and restriction against women in society (Martey, 1998, p.38). This socio-cultural role assigned to women within the African traditional communities is reflected on how the Polytechnic assigns roles to women.

Adeoti, like Labeodan, also holds a similar view that "In many societies, be it Africa or elsewhere, a woman is seen as the burden bearer with no rights whatsoever to equality with man. She is even seen as an irrational being not capable of reasoning; therefore, she is to be seen and not to be heard... The ancient world was predominantly a man's world' (Adeoti, 1998, p.107).

Again, E. Martey continues that "the history of African culture is patriarchal. " Women in Africa have not been treated as equal to men in opportunity, dignity and power" (Martey, 1998, p. 38). He says the cultural restrictions and discrimination against African women is..... Most societies in Africa prefer having male children, especially, as the first born. A wife may be divorced for not having male children, or at best, the man may look elsewhere for male children (Martey, 1998, p.41). Industrial revolution, scientific advancement and technological innovation have pushed women into new/ contemporary roles and they are contributing to a new view of the part that women could play at work and in the society. The new role that women play in the society affects Accra Polytechnic particularly. Some women only need to acquire certain skills which will enable them to do their work effectively. Women who intend to be involved in the decision making positions need a thorough academic and administrative training by upgrading themselves in order to qualify at all levels.

Contemporary Roles of Polytechnic Women

In the Ghanaian communities, women turn to play multiple roles in whatever situations they find themselves. In combining the traditional and contemporary roles, many women find themselves playing the roles as wives, mothers, and lecturers among others. It is not uncommon to find a woman playing multiple roles, a woman being a mother, wife, lecturer, a commissioned and an ordained minister etc at the same time. This implies that women leaders at Accra Polytechnic like their counterparts in the other sectors of life find themselves as mothers, wives, single parents, etc. Thus, the female leaders do not neglect their predominant female duties using their positions as an excuse despite the demands each of these peculiar roles places on the women. The researcher is an example, a Reverend Minister of the Presbyterian Church of Ghana, a head of department/lecturer, mother and a wife whilst the husband is an accountant, husband and a father. Out of the fifteen heads of department of Accra Polytechnic, only two females are heads of department.

We have been administrators & managers of the various departments. We are Grace Sintim Adasi and Rita Sarkodie Baffoe and there are other women as mentioned earlier like the registrar, auditor, public relations officer, and head of world of work among others. Our leadership roles in the Polytechnic have changed students' lifestyles and empowered them, especially young women, in the sense that through our efforts, we have increased the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes.

Many of our old students are plying leadership roles in the various institutions in the country. As heads of department, we have initiated new programmes like DBS Entrepreneurship, HND Entrepreneurship, Bachelor of Technology in Advertising, Proficiency courses in languages like English, French, Chinese, Spanish, German etc contributing not only to the internally generated funds of Accra Polytechnic, but helping lecturers get more income and increasing the knowledge base of our students, helping participants to acquire proficiency knowledge in the varied languages and giving good grounding to Francophone students in the Polytechnic. The DBS course in Entrepreneurship helps students acquire and apply personal entrepreneurial characteristics to establish and manage their own businesses.

Our concept and philosophy of leadership is seen in the design and activities of our various departments. It is stated in the Polytechnic's vision and mission statement that the institution aims at being a centre of excellence for teaching, learning, and research and ... to provide life-transforming opportunities and experiences for students through teaching, entrepreneurial skills development and research in the fields of Applied Sciences, Engineering, Technology, Applied Arts and Business for the benefit of society. The female leaders are contributing towards social development and we are channels of change especially in the area of negative socio-cultural perceptions about women. With this regard, our uniqueness comes out. We work hard to improve the lives of young women and men and again mentor them. One answer to the barriers and obstacles women administrators at Accra Polytechnic deal with on a daily basis is mentoring. Mentoring has significantly enhanced income and promoted possibilities for individuals experiencing these relationships. Our mentoring has met the needs of both the students and Accra Polytechnic. The mentees have benefited because we care enough to support them, advise them and help interpret inside information (Cullen & Luna, 1993; Hagevik, 1998; Whitaker & Lane, 1990).

We are sharing our time, wisdom, energy and counselling and in some cases, paying the fees of those who are in need.

There seems to be enough evidence to suggest that women lead differently from men. For instance, women portray a more participatory approach, are more democratic, allow for power and information sharing, are more sensitive, more nurturing than men, focus on relationships and enable others to make contributions through delegation and also noted characteristics such as building coalitions and advancing individual and community development are constructs that women display in their relational styles. (Josephine Kiamba, 2012).

Women administrators as mentioned above do not just sit at the desk, but embark on proactive, physical and concrete actions. The Polytechnic's Mission again, focuses on leadership and in our seminars and workshops we dwell on topics like effective communication, business (economic) skills, confidence building, economic and cultural issues.

The Polytechnic women leaders encounter some challenges. For example, culturally or traditionally, many Ghanaian wives are expected to relocate to wherever their husbands find themselves, irrespective of the type of jobs they do before or after marriage or the type of schools their kids attend. The problem of relocation affects Ghanaian/Polytechnic women and their roles towards technological development. Husbands, according to culture and custom, are not expected to relocate with their wives when they are transferred. One of the problems facing women leaders is this cultural and societal demand that every wife, irrespective of who they are, relocate to wherever their husbands are transferred to. I think this issue of relocation has greatly influenced some of the Polytechnic men's attitude to married women aspiring to higher positions thinking what of will happen if their husbands are transferred and they would have to accompany them.

Another problem facing the Polytechnic women leaders who are wives is the ability to efficiently perform their roles of being wives which demand cooking, washing, nurturing, making sure food is ready and cleaning the house. The role of a woman leader which includes preparing lecture notes, marking, teaching full time/ part time evening school, performing administrative duties/ public relations/ auditing is literally being on duty for 24 hours as a leader.

In the Ghanaian society, it is a challenge when women still combine old traditional roles with new roles. This affects married women leaders in the Polytechnic because elsewhere in Europe, roles are differential and most women would not agree that men are the heads in their homes. In response to the question whether respondents think the Ghanaian expectations of women affect women leaders, some claim it is difficult for women leaders to balance their lives carefully to be able to perform their roles as wives, mothers and leaders. A female lecturer in an interview remarked 'her husband is very supportive and he does not leave her alone to go about the house chores and he eats whatever is available' (Interview, 18 June 2013, Accra). Dolphyne (1991, p. 5) for example, writes on 'who does what in the home,' and to Dolphyne:

Every African woman grows up knowing that it is the woman who cooks the meals and generally sees to it that the house is clean and well kept, and that everything is in its proper place. No matter her level of education or professional status, she does not normally expect to share the household chores with her husband.

Dolphyne thinks 'if the husband enjoys cooking and chooses to cook breakfast or dinner one day, she appreciates the fact that he is being helpful, but she does not expect him to do so as a matter of compulsion' (Dolphyne, 1991, p. 5). She continues further that husbands who have lived in Europe before used to help their wives in the house chores but when they are in Ghana they do not help them. Professional women in Ghana like the female leaders at Accra Polytechnic claim they employ house helps and pay their salary, thinking the house helps do their jobs for them.

Majority of the married women leaders were of the view that they perform their duties perfectly and they think they are doing same as other women in other leadership and challenging positions like reverend ministers, bankers, lawyers, judges, police, soldiers, doctors, engineers, architects among others. As to how the male leaders combine their duties, fatherly and husbandly duties, they said that they plan with their wives to allocate time and days to their job activities as well as to the family. According to a male lecturer, it is not easy being a lecturer, husband and a father but it takes discipline, determination and dedication (Interview, 10 August 2013, Accra). He claims they apportion their time to the chores and see to it that none of their roles suffers by ensuring that they spend their leisure times with their family. He remarked that they share their time between their job and family life.

Sackey refutes a review of the theory of inequality that revealed that 'evolutionary anthropologists used the concept of adaptation and division of labour to propose that the size and strength of men made them adapted for different jobs while the biological make up of women kept them at home as only caregivers of husbands and children' (Sackey, 2006, p.49).

Sackey opines that 'Marxist anthropologists attribute the subordination of women to the domestic and public dichotomy and sexual division of labour, arguing that women's subsequent relegation to reproductive labour is the main cause of inequality (Sackey, 2006, p.49). Sackey's observation is true of the African woman because her biological make-up has been traditionally and culturally used as a hindrance to her potentials. She is barred from undertaking/combining certain duties (wife, mother, lecturer among others) and as such women like these women leaders

who go beyond their 'gender specified' roles as Sackey puts it, are usually challenged (Sackey, 2006, p.49). The female leaders of the Polytechnic have managed to make a breakthrough in the institution and in the society in spite of the problem created by culture and gender roles in the society and Sackey thinks it is a reclaim. Oduyoye also comments on one generalization that African society expects childbearing and homemaking of its women. She says it is more or less a truism that it has usually been accepted by African women. Oduyoye says such statements are not just outrageous, but they are dangerous because they are sometimes used to form discriminating laws against women (Oduyoye, 1996, p. 5).

She further comments that 'women's experience of being persons primarily in relation to others, as a mother or as a wife predominates in Africa and a woman's social status depends on these relationships and not on any qualities or achievements of her own (Oduyoye, 2000, p.122). The traditional norm within which women are expected to earn an income and to provide for at least part of their own as well as their children's needs is perpetuated (Oduyoye, 2000, p.122). Therefore the norm that makes housework the exclusive responsibility of women and the modernization of women's work is viewed with suspicion that African women still grind and pound the hours away. We think the wider society is not yet ready to see any change in the present domestic arrangements.

Our findings and other similar studies speak not only of men's' resistance to women's success in male-dominated occupations, but also to the resistance of the institution. Like most other social institutions, the institution has not altered its gendered expectations to accommodate the rising number of women and mothers entering. Compared to other European employed women, African employed women seem to face a prejudice of greater intensity, since the African culture model promote gender differentiation both as a matter of practice and policy.

Socially, the issue of women's rights has been affirmed by secular society and women's ability to perform well in a number of traditionally male occupations stands as a visible affirmation of these rights. Male stereotypes about women are present in all cultures of the world. The point being made is that culture decides what women's work is and what men's work is. As girls grow up they are taught at home what women's work is. Cultural demands are interpreted. The place of a woman is in the home and her major roles are child-bearing and child-rearing. Patriarchal culture which is concerned with preserving ruling power in the hands of men at all cost is called upon here against women sharing leadership roles in the Polytechnic. There are also the assumptions that in culture, under no circumstance do women have power over men (Cody-Rydzewski¹).

Conclusion

The experiences of women in the Polytechnic are woefully under represented and it seems evident that the strong wave of transformation that has evolved in the community will continue till things are normalized. In the aspiration for innovation or modernization recourse to the converse seems to have taken place and aspects of tradition have been retained through their very rejection. The women discussed in this work have demonstrated that the enterprising capabilities of the women in the Polytechnic extend beyond the acknowledged physical boundaries of the Polytechnic. They have penetrated profoundly into the academic domain and challenged the prejudices of the arguments against their leadership, testified that there lies an inert inherent dynamism in women which, when given the appropriate recognition, would rekindle and be employed for the benefit of technological innovation. The accomplishments of the Polytechnic women should be lauded. They should be honoured as having preserved

¹ Accessed, 24/09/2011

a valuable women heritage. We have so far demonstrated that the challenges that women encounter centre on socio-cultural issues.

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