

Challenges Facing Kenyan University Fashion and Apparel Design Programs

Rael Maiyo Chepchumba^{1*}, Cheruiyot Monica²

¹Department of Family and Consumer Sciences, University of Eldoret, Kenya

²Tambach Teachers' Training College, Kenya

***Corresponding author**

Rael Maiyo Chepchumba

Article History

Received: 01.03.2017

Accepted: 07.03.2018

Published: 30.05.2018

DOI:

10.36347/sjebm.2018.v05i05.001



Abstract: Throughout the world, university fashion training programs should contribute to supply of manpower for apparel industry. Studies have noted that most African countries lack high-skilled workers in apparel design. The absence of qualified managers and design experts in Kenya has been attributed to lack of explicit human resource development plans in the entire textile industry, due to the fact that mainstream academic institutions offering courses in the field of fashion and apparel design have not been adequate. This study sought to establish the challenges facing university training in fashion and apparel design. The study population was made up of all the departments in Kenyan universities offering university undergraduate fashion and apparel design programs (UUGFADPs). Thirty two (32) university fashion and apparel design staff (UFADS) [lecturers and technicians], 99 third and fourth year university undergraduate fashion and apparel design students (UUFADS) were selected purposively, and 54 university fashion and apparel design graduates (UFADGs) and 22 employers of university fashion and apparel design graduates (EUFADGs) were selected through snowball sampling. Questionnaires were employed in data collection and Statistical Package for Social Sciences (SPSS) was used to analyse data. This paper shows that the most significant challenges facing the UUGFADPs included inadequate learning materials and equipment, obsolete technology; an outdated curriculum, inadequate staffing, inadequate practical training, insufficient learning/teaching space, inappropriate learning/teaching methods, inadequate industrial exposure and few reference materials. Consequently, the paper observes that for the programs to give adequate training for a competitive FA industry, these challenges should be addressed by the relevant stakeholders.

Keywords: Fashion Training, Apparel Design, Training Programs, Kenyan Universities.

INTRODUCTION

Globally, university fashion training programs have contributed to supply of manpower which enhances competitiveness in world apparel trade in most countries [1]. However, Otiso [2] points out that most African countries lack high-skilled workers in apparel design. Brimble and Doner [3] have noted that due to change in technology, there is need to evaluate the educational programs, both in content and delivery. The changing technology in the developed countries requires that the educational programs have to be responsive to the needs of industry for them to compete in global fashion markets.

In her study, Bosibori [4] found that apparel manufacturing firms in Nairobi, Kenya, were faced with inadequately trained and skilled manpower and managerial problems. She further noted that essential skill training was necessary for industrialization hence economic growth, leading to development and the

creation of employment. The absence of qualified managers and design experts in Kenya was cited by Ikiara and Ndirangu [5] and was attributed to the lack of explicit human resource development plans in the entire textile industry, the apparel sector included. The mainstream academic institutions offering courses in the field of fashion and apparel design have not adequately catered for the industry. On the other hand, an assessment of manpower utilization in Kenyan industries by the Directorate of Industrial Training (DIT) revealed that technical graduates had no hands-on experience, had poor work attitudes and were inflexible [6]. A report by the United Nations and the DIT further indicates that Kenyan universities' training lacked a link to the industries: most employers spent up to two years retraining their recruits to equip them with skills [7]. The above studies point out to a lack of adequate training for the Kenyan apparel firm workers and the studies have attributed this inadequate training

to unclear human resource development for FA industry in the Kenyan universities.

Bosibori [4] proposes a study to evaluate the effectiveness of fashion and apparel design programs offered at training institutions and their relevance to the fashion and apparel industry. In view of the foregoing, this study sought to establish the challenges that face the Kenyan university undergraduate fashion and apparel design programs in manpower training for the apparel (FA) industry.

METHODOLOGY

The study population was made up of all the departments in Kenyan universities offering UUGFADPs. The university fashion and apparel design (UFAD) programs referred to those that were concerned with all aspects of apparel; from designing garments, construction, to selling finished products to the retail market. According to the Kenyan Commission for Higher Education, there were 6 Kenyan universities offering bachelor’s degree FAD training [25]. These included Kenyatta University, University of Eldoret (UoE), Egerton University, Maseno University, University of Eastern Africa-Baraton (UEAB) and Technical University of Kenya

(TUK). Thirty two (32) university fashion and apparel design staff (UFADS) [lecturers and technicians], 99 third and fourth year university undergraduate fashion and apparel design students (UUFADS) were selected purposively, and 54 university fashion and apparel design graduates (UFADGs) and 22 employers of university fashion and apparel design graduates (EUFADGs) were selected through snowball sampling. Both structured and unstructured questionnaires were employed in data collection. Statistical Package for Social Sciences (SPSS) version 21 was used to analyse data.

RESULTS

Challenges in UUGFADPs were determined from the problems in UFAD as perceived by UUFADSs and UFADS where they were asked to indicate if they encountered any challenges in the FAD training and, if they did, to specify it. Challenges to the UUGFADPs were further determined from the weak areas in the programs as perceived by the UFADGs and from EUFADGs’ suggestions on areas that needed to be improved. Ninety students (91%) said that they encountered challenges with FAD during their training. The challenges faced by the UUFADSs are presented in Table 1.

Table-1: Challenges Encountered by UUFADSs during Training (N=90)

Problems	Frequency	Percentage (%)
Inadequate equipment and materials	73	81
Lack of industrial exposure	47	52
Obsolete technology	45	50
Too much theory than practicals	40	44
Curriculum need to be reviewed	26	30
Inappropriate teaching methods	21	23
Lack of enough qualified staff	18	20
Inadequate lab/space	18	20
Practicals were not well guided	16	19
Inadequate references	14	18
Poor image of FAD/no mentorship	11	12
Poor time allocation of courses	10	11

Note: Multiple responses were allowed

The challenges, as presented in Table 1, included: inadequate materials and equipment as noted by 73 students (81%) of the 90 students who said that they encountered challenges during the training; lack of industrial exposure by 47 students (52%); obsolete technology by 45 (50%) of the students; too much theory or lack of enough practice in FAD by 40 students (44%); curriculum needed to be reviewed by 26 (30%) of the students; inappropriate teaching methods by 21 students (23%); lack of enough

qualified staff by 18 students (20%); 18 students (20%) said that the labs were too small/or not adequate; practicals are not well guided by 16 (19%); inadequate reference by 14 (18%) of the students; poor image of FAD or no mentorship by 11 (12%) and poor time allocation of courses by 10 (11%). Twenty two (86%) of the UFADS indicated that they faced challenges when training in FAD at the university. Table 2 shows the challenges encountered by UFADS during the training of UUFADSs at the respective universities.

Table-2: Challenges facing UUGFADPs as Perceived by UFADS (N=22)

Problem	Frequency	Percentage (%)
Inadequate materials/equipment	21	95
Obsolete technology	15	68
Less industrial exposure	14	64
Inadequate space/labs	13	59
Inadequate time	10	45
Curriculum need revision	10	45
Insufficient references	10	45
Lack of students' interest	7	32
Poor professional image	2	9
Poor technical support	2	9

Note: Multiple responses were allowed

Table 2 shows that the challenges that were mostly mentioned by the UFADS included inadequate learning materials/equipment (21, 95%), obsolete technology (15, 68%) less industrial exposure (14, 64%), inadequate space/labs were in poor state (13, 59%), inadequate time (10, 45%), need for curriculum review (10, 45%), insufficient references (10, 45%), lack of interest by students (7, 32%), poor professional image (2, 9%) and poor technical support (2, 9%).

Table 3 shows the weak areas in the UUGFADPs as perceived by the UFADGs. The most

mentioned weak areas in the UUGFADPs according to majority of the UFADGs (48, 89%), as shown in Table 3, was too much theory and less practical training that would impart hands-on skills especially in areas such as apparel construction, inadequacy of essential learning facilities by 45 (83%), irrelevance of CAD software used to fashion design and lack of CAM software (40, 74%), need for curriculum review by 39 (72%), inadequate industrial exposure by 34 (63%) and obsolete technology by 32 (59%).

Table 3: UFADGs' Perception on Weak Areas in the UUGFADPs

Weak Areas	Frequency	Percentage (%)
Inadequate practical skills	48	89
Inadequacy of essential learning facilities	45	83
Poor CAD / CAM experience	40	74
Curriculum should be reviewed	39	72
Inadequate industrial exposure	34	63
Obsolete technology	32	59
Few reference	12	22

Note: Multiple responses were allowed

Table 4 shows suggestions by EUFADGs on areas that needed to be improved in the UUGFADPs.

Table-4: Areas for Improvement in UUGFADPs as Suggested by EUFADGs

Area	Frequency	Percentage (%)
Practicals	20	83
More industrial exposure	18	75
Need for Curriculum review	18	75
Modern technology	15	63
Creativity	10	42

Note: Multiple responses were allowed

Table 4 indicates that the most challenging areas in the UUGFADPs, from the views of the EUFADGs were the Kenyan UUGFAD curriculum should improve on: practicals as suggested by 20 (83%) of the employers, the UUFADSSs should be given more exposure to the FA industry according to 18 (75%), need for curriculum by 18 (75%) and more use of latest technology hence modern machines and IT by 15 (63%).

DISCUSSION AND WAY FORWARD

The challenges that faced the UUGFADPs were generally drawn from UUFADSSs', UFADS, UFADGs', EUFADGs' and UFAD department HODs responses as well as from field observation of delivery of the programs. The following challenges were noted and discussed under the sub headings below.

Inadequate Learning Materials and Equipment

Learning materials and equipment were inadequate, according to the students, staff and graduates. 73 (81%) UUFADSs, 21 (95%) UFADS, 45 (83%) UFADGs and 15 (63%) EUFADGs noted that learning materials and equipment was a challenge in the UUGFAD training. The UUFADSs noted that, sometimes, they were asked to purchase the learning materials yet these materials were expensive. The UUFADSs further suggested that universities should buy their students materials because it was expensive hence compromising the learning process. According to UFADS, teaching materials should be available at all times; ready for use by learners and procedures for getting these materials should not be too long.

The UUFADSs and UFADS observed that there were either few or sometimes none or outdated equipment for UFAD. The UFADS observed that when the requisite equipment was insufficient, such that students outnumbered the equipment, the students didn't complete their course projects on time. The staff hence had to work tirelessly and even overtime. Sometimes, work was done at the last minute or students didn't complete their projects. The UFADS noted that departments' equipment were not taken care of and, sometimes, machine breakages occurred and repairing them was not done with urgency and yet students needed to complete their projects. Such a situation caused the students to complete their projects late or end up not acquiring the necessary skills and not knowing how to handle some tools. The UUFADSs and UFADS, therefore, emphasized that there was dire need for more up-to-date equipment and those that exist should be given regular servicing. The UFADGs and EUFADGs further suggested that various kinds of machinery should be introduced to the learners at the beginning of the course. Some of the relevant equipment required included industrial machines, drafting mannequins and dummies, computer hardware and software and dyeing and printing equipment. Training materials and equipment should also to be updated, for example current marking drills and cutting machines for mass production should be used. Where no updated equipment was available, the UFADGs proposed that the UFAD departments could organize frequent field trips to shed more light on what the UUGFADPs were offering.

The observation on inadequacy of learning materials and equipment is similar to Edwinsson and Nilson's [8] who noted that Kenyan fashion design schools did not give students appropriate tools /equipment to develop within the fashion industry. They emphasize that the relevant equipment ensures training of more competent fashion designers. The findings also concur with Kurz's [9] on Swedish fashion design schools who found that the teaching materials were not adequate in the design schools. The

Kenyan UFAD departments are therefore challenged to avail adequate learning materials and equipment in order to train competent graduates hence enhance the relevance of the training to the manpower needs of the FA industry.

Obsolete Technology

The UUFADSs (45, 50%), UFADS (15, 68%), UFADGs (32, 59%) and EUFADGs (15, 63%) indicated that the UUGFADPs were not in tandem with changing technology in the FA industry. Some HODs noted that they were challenged by the slow pace in adoption of new fashion technology; for instance, purchasing of fashion tailored CAD and CAM software was too expensive. Some kinds of equipment were not updated, like computer hardware and software: "*The FAD program does not add new insights to the FA industry.....industry is far ahead of what the training is offering*" (UFADG respondent No. 11, 2011).

The curriculum, as suggested by the UFADGs, should cover more on new computer technology in the fashion industry production, with relevant CAD and CAM that should be taught practically and the FAD departments should particularly invest in new technology such as relevant CAD software, markers and plotters among others. The result agrees with Yang *et al.* [10] who assert that design education in the UK needed to be reviewed and updated in order to keep up breast of technological advances thus encourage design students to become lifelong learners and reflective practitioners in order to adapt to future challenges. The finding is also similar to that of Eskandari *et al.* [11] who encourage significant changes in the US undergraduate industrial engineering curriculum that include introducing new technology in classrooms. The UUGFADPs hence should be in tandem with the changing technology in the FA industry so as to enhance their relevance.

Insufficient Staffing

1, 18 (20%) UUFADSs indicated that the UFAD departments lacked enough qualified staff whereas 2 (9%) UFADS noted that they experienced poor technical support. Interviews with HODs further revealed that there was an inadequate number of senior staff who had specialized in FAD. The UUFADSs recommended that the lecturers should teach what they are competent at, for instance art and design course could be handled by a fine art expert and there should be adequate guidance or supervision by concerned technician or lecturer. The UFADS observed that poor technical support also contributed to delay in completing the projects.

The UUFADSs perceived their departments' staff to be female dominated. The problem of perceiving FAD as female dominated can be solved if the course is well-marketed. Edwinsson and Nilson [8]

too urge the Kenyan government to market the fashion design profession in order to make it more attractive and accepted due to an observation that there was a growing interest for a growing fashion industry.

The UFADGs recommended that the UFAD departments should invest in qualified staff because, for the FAD programs to be relevant, the lecturers must have the relevant training. In addition, these lecturers needed to be more exposed to the fashion industry both locally and internationally, hence keep abreast with modern trends in the fashion industry. This suggestion agrees with Ogula [12] who emphasizes on the need in Kenya to invest in education by sending its human resource abroad for training and research so as to produce world class professionals. The UFAD departments thus should invest in qualified staff because the success of curriculum implementation depends on their competence.

The Need for an Updated UFAD Curriculum

Constant revision of the FAD program's curriculum to match the market needs was a concern of 26 (30%) UUFADSs, 10 (45%) UFADS and 39 (72%) UFADGs. The respondents proposed that the departments should review their curricula regularly to keep pace with the fashion market's changes thus the need to teach modern issues and current fashion trends. According to the respondents, there was dire need for more connection to what is happening in the outside world; for instance, through more research on new fabrics available in the market. Some students felt that some courses, especially the common courses like *Introduction to Agriculture* and *Biostatistics*, were irrelevant to fashion and apparel design. Areas such as having a whole course on machine parts, functions and maintenance could be condensed. The UUFADSs also observed that a lot of time was wasted by repeating courses instead of focusing on areas of specialization.

The UFADS also recommended that the course should be made to be more practical through having more practical courses. It was suggested that courses should be well scheduled on the time table and enough time to be planned for courses offered by giving more time to practicals/projects and removing irrelevant theory courses. The UUFADSs and UFADGs observed that some courses such as CAD and CAM (Computer Aided Manufacturing) in UFAD training should be improved hence increase the ease of getting final patterns. They also proposed that more business related courses should be introduced. These business courses would help one to manage fashion business well thus instill business skills. Other proposed areas were the introduction of industrial education, management and marketing courses and intensive anthropometry. The observation on the need to review the UUGFAD curriculum agrees with Maiyo and Amondi [13] on Kenyan university UFAD curriculum and Anonymous [14] on South African

UFAD curriculum that the UFAD curriculum needed to be reviewed so that the courses taught become practical and more relevant. The result is also similar to Feather [15] who noted that the US UFAD curriculum needed to evaluate the course offerings and make necessary changes to strengthen the position of the fashion design programs and keep them viable. The Kenyan UUGFAD curriculum should be reviewed to match the changes in the FA industry and ensure that the relevant courses are taught and practically.

Insufficient Learning /Teaching Space

18 (20%) of the UUFADSs acknowledged that they faced challenges and 13 (59%) UFADS considered inadequate learning/ teaching space as a challenge. The UUFADSs and UFADS pointed out the absence of design studios for drawing, project presentation and display and inadequate labs. They noted that the rooms/ labs to carry on with their practical lessons were sometimes not adequate because they were used to teach theory lessons. The UUFADSs and UFADS recommended that more rooms and studios and even storage and display areas in the labs for students to keep their projects should be created. The results concur with Edwinston and Nilson's [8] who urge the Kenyan government to ensure that the necessary facilities were in place for training in fashion design education. The finding also agrees with Digolo [16] who asserts that among the challenges facing the Kenyan education in the 21st century was quality whose criteria should be assessed by observable inputs such as teaching facilities, of which space is one of them. The learning/ teaching space such as labs, studios, storage and display areas should be enhanced hence improve on the quality and relevance of the UUGFADPs.

Inadequate Time

According to 10 (45%) of the UFADS and 10 (11%) UUFADSs, time for teaching/learning in UUGFADPs was not adequate. The UFADS and UUFADSs noted that the semesters had been shortened therefore reducing time for completing practical projects. Poor scheduling of courses on the time table hence insufficient time allocation for practical courses led to students not completing their projects or they may end up not grasping the concepts well.

Given the practical nature of the courses, the UFADS proposed more practical lessons than theories and more time to be allocated for the practical courses. This challenge is similar to Scot and Watson [17] who observes that factors such as restricted academic year caused changes in the UK university educational programs. Digolo [16] too acknowledges that time in the Kenyan educational programs was a challenge which must be considered as a criteria in the assessment of the quality of the programs. Limiting time for practical courses such as FAD can change the program's output because the skills required to be

transferred to learners will be limited by time. It is therefore necessary to note that UFAD training requires adequate time.

Inappropriate Learning /Teaching methods

Learning /teaching methods in UUGFADPs were inappropriate according to 21 (23%) UUFADs. More demonstrations and practicals needed to be used as learning /learning methods. They observed that practical courses being taught as theory was not relevant to UUGFAD training. For example, when there was no software for CAD, the tutor taught the course by theory and yet the students felt that they should have been taught practically. The UUFADs proposed better teaching methods for some courses, such as extensive use of Information Communication Technology (ICT) in teaching - for example, the use of computer power point to illustrate concepts hence make learning more enjoyable.

Almost all UFAD courses, according to 48 (89%) of the UFADGs, should be learnt practically with proper guidelines from the lecturers/technicians but not by student's discretion, because the job market needed graduates with hands-on experience. The finding agrees with Kurz [9] who emphasizes that teaching methods must be adequate in the Swedish universities' fashion training in order to encourage more degree fashion graduates in the fashion industry. The observation is also in line with Kirsty [18] on South Africa's fashion education and Rao and Joshi's [19] on Indian fashion and apparel design entrepreneurship education where they point out the need for a better planning of teaching methods. Riechi [20] further points out that the quality of teaching of courses offered at the universities could taint the potential students' perception of courses. The UFAD departments should diversify the teaching methods and particularly ensure that FAD courses are taught practically so that relevant skills for the FA industry are imparted.

Inadequate Practical Experience

Inadequate practical skills was mentioned by 48 (89%) of UFADGs to be a challenge facing the UUGFAD training. From industrial attachment, UFADs too observed that students needed a lot of hands-on training. Students, especially, required a lot of practicals in use of CAD in design.

The UFADGs observed that employers claimed that most university graduates were only competent theoretically but could not deliver practically hence they preferred hiring diploma graduates. Generally, according to the UFADGs, employers preferred graduates for supervision, management and creativity. In performance and specialization at certain areas, such as stitching and garment construction, these employers preferred FAD diploma and certificate graduates. The UFADGs were

perceived by employers to have wider knowledge but lacked hands-on experience though they are expected to be professionals in fashion design.

It was suggested by the UFADGs that FAD training must have more practical introductory approach by having more practical work or assignments in order for graduates to fit better in the FAD industry. More practical skills particularly in pattern drafting, freehand cutting, stitching/garment construction, fashion exhibitions and shows should be imparted. The result on lack of adequate practical experience concurs with Muigai *et al.* [21] who indicate that some of the Kenyan university curricula have been criticized as theoretical and out of tune with current technology. The finding is also similar to the challenge noted by Rao and Joshi [19] concerning Indian fashion and apparel design entrepreneurship education where they pointed out the need for a practical exposure in the curriculum. Lack of adequate practical experience in the UFAD curriculum is a challenge that must be addressed so that the relevant skills for the FA industry are acquired by the learners.

Inadequate Industrial Exposure

47 (52%) of UUFADs and 14 (64%) of UFADs who responded to the question on challenges faced in UUGFAD training indicated that industrial exposure was challenge in UUGFAD training. The UUFADs needed industrial exposure so that they can improve on their creativity through exposing the students to fashion events such as shows and exhibitions. Holding workshops with talks from already experienced designers to provide mentorship was also recommended by UUFADs. This finding concurs with Thuo [22] who also observes that interactions between the industries and the universities in Kenya were below average. The finding on the inadequacy of fieldtrips further implies that there is little touch with the FA industry by the UUFADs, a matter which is crucial in the UFAD training if the relevant skills for the industry have to be imparted through the UUGFADPs. More field trips for real pictures of design and fashion shows every semester were noted to be crucial in giving learners exposure to the real work environment. Exposure could also be done by encouraging exchange programs with other universities, both outside and within Kenya.

Practical orientation, as suggested by UFADs, can also be ensured through more exposure of the students to new market leading design houses. Some lessons could even be done at the industry or the departments may organize regular industrial attachments. Longer practicum sessions were suggested by both UUFADs and UFADs by scheduling the industrial attachments every year with a theme to capture during every attachment session. The industrial attachments could begin earlier like from 2nd year of study.

The UFADS proposed that industrial attachment areas should also be pre-determined so that students do not find themselves in areas that are not relevant to their training needs. From the FAD experience in the assessment of industrial attachment, the UFADS though observed that the inability to secure attachment places for students was another challenge. According to UFADS, exposure of the students to the fashion and apparel industry could also be ensured by holding public fashion shows and exhibitions annually and even encouraging inter university fashion competitions and exhibitions.

Thirty four (63%) of the UFADGs also noted that inadequate industrial exposure was a challenge in the UUGFAD training. They too indicated that tours and attachment to the FA industry were not sufficient. According to the UFADGs, frequent visits to apparel producing industries should be organized, to know exactly what happens in the industry and to apply what the FAD students are taught at the university. In their view, exposure of the students to current fashion trends was important, as it would give them a chance to be creative for example; the departments can have exchange programs with other universities both locally and abroad. The UFADGs also proposed that the UFAD departments should hold frequent fashion shows, exhibitions and workshops at the university to be attended and participated by students, have industrial attachments every year at different setting each year, and incorporate fashion in the media.

The UFADGs further urged the university FAD departments to expose students to the fashion market where they could even let the UUFADSs avail their designs/ products/ projects to the market to be seen by customers thus see customer response to the designs. This exposure would train the students on how to market themselves and their design ideas. As it was suggested by the UUFADSs, the UFADGs too proposed that UFAD students should be encouraged to be able to establish their own fashion enterprises by including a lot of business courses related to fashion. The result on inadequate industrial exposure agrees with Maiyo and Amondi [13] and Kurz [9] who propose industry based training in order for the UFAD departments to give UUFADS exposure to the FA industry. Industrial exposure thus was crucial in the UUGFAD training so that learners can grasp the knowledge and skills in relation to the real work environment.

Weak Industry-University Linkages

Along with inadequate industrial exposure by the UUFADSs, university-industry linkages were perceived to be weak between UFAD departments and the FA industry. From the view of the UFADS and UFADGs, the UFAD departments should establish collaborations with the FA industries so as to be

updated on new technologies and the fashion market's trends. According to the UFADGs, university FAD departments should work closely with the FA industry/potential employers so that they can know what is expected of the UFADGs. The UFADS and UFADG gave the following suggestions on how the UFAD departments can collaborate with fashion and apparel design industry for improvement of the quality of UUGFADPs:

- Workshops and conferences for students and staff organized by both the industry and the university.
- The FA industry should give regular industrial attachments to students.
- Develop fashion periodicals to inform and involve students in the market sector.
- Exchange of staff between UFAD departments and the FA industry.
- Allow students to have frequent educational trips/ industrial visits.
- The industry could be allowed by universities to train in other areas.
- The industry can give scholarships for further training as awards to students after fashion competition
- Direct fashion shows, organized by both the FA industry and the UFAD departments, which would give students an opportunity to participate.
- Joint research, conferences and workshops. Universities and industry would share research findings for the improvement of the profession for instance in product development and consumer needs and requirements.
- University FAD departments can have a board of advisors/advisory boards from industries where representatives of different organizations such as designers, Kenya Bureau of Standards (KEBS), Kenya Association of Manufacturers (KAM), African Cotton and Textile Industries Federation (ACTIF) to assist in curriculum development and networking.
- The UFAD departments could request for donation of teaching materials and equipment from fashion designers and apparel manufacturing industries.
- Motivational talks could be given to students by the FA industry and the UFAD alumni.

The observation on weak university-industry linkages agrees with Brimble and Doner [3] who note that Thailand's university-industry linkages were perceived to be weak and did not give significant benefits to both industry and universities in areas such as improving curricula, creation of new academic units nor upgrading on the part of the firms (industry). The above observation also concurs with Rao and Joshi's [19] on Indian fashion and apparel design entrepreneurship education who observe that there were less industry research linkages. Thuo [22] recommends a stronger and constant link between the industry and universities through joint research

ventures and suggests representation of industry in university management boards. He also proposes that the donation of equipment by the industry to universities should be enhanced. Moncarz [23] also suggests that research and development, necessary to create a new information infrastructure, should be done by universities, industries, independent laboratories and standards organizations that are relevant to the FTA industry. This paper therefore notes that Kenyan university-industry linkages in the UUGFADPs were weak and it should be strengthened so that the UFAD departments can collaborate with the FA industry in training of the skills that are relevant to the FA industry.

Less Support from University Administration

The UFADS pointed out that the administration should change its attitude towards the FAD profession by employing more FAD staff and equipping the departments. It was recommended that more qualified staff (lecturers and technicians) should be employed and, when not possible, the administration should offer in-service or short term training to the staff. Some UFAD departments' HODs note that low enrolment by students to their FAD programs was due to little support from the university administration in supporting the UUGFADPs.

The UFADGs too noted that the university administration should give equal rights to the FAD courses just like any other course at the university. The university, therefore, should provide learning materials so that the course does not seem expensive to students. This suggestion concurs with Scott's [17] recommendation for a closer association between the management of universities and colleges on the organization of teaching and learning within them. The UUGFADPs required a lot of support from the university administration in terms of marketing the program, staffing and staff development, procurement of learning materials and equipment and financing of field trips and research.

Few Learning /Teaching References

Learning reference materials as a challenge was given by 14 (20%) UUFADSSs, 10 (45%) UFADS and 12 (22%) of the UFADGs. There is need for up-to-date reference materials and a library at the department. They observed that reference materials, such as books and journals on latest research in the FA industry were few, not up to date and had no variety. From observation of delivery of UUGFADPs, courses, such as Research Methods and Biostatistics, students never found relevant references, hence relied on internet and lecture notes. This could be because they were common courses hence books were used by many students and finding the references in the main library was difficult. Other UFAD courses had very few references; in most cases only one or two copies were available and were old; published in 1960s, 70s, 80s

and latest 90s. This challenge is in line with Digolo [16] who notes that the availability of learning and teaching resources such as reference materials is a challenge that should be assessed as a criterion of quality in the Kenyan educational programs. Given that one of the UUGFADPs' objectives is to train UUGFADSSs to carry out research in FA industry, availability of adequate reference materials is crucial if the programs' objectives are to be achieved.

Review of Evaluation of UUGFADPs

The UUFADSSs recommended that during evaluation, practical part of a course should be allocated more marks than the theory part. It was noted that sometimes, courses that were too demanding practically were allocated lower marks on practicals and higher marks for the theory part thus demoralizing the students. It was also noted by the UFADS that during external moderation of examination scripts, most of the times the external examiners did it hurriedly as they had too many scripts to examine within a very short time. In some cases, the external examiners who were not specialized in the area of study did external evaluation of UFAD courses; for instance a specialist in Home Economics being appointed as an external examiner for UFAD department. The implication of this observation is that the feedback from the evaluation process may not be relevant enough to the UUGFAD skill training for the FA industry. This challenge could be attributed to the few senior staff that have specialized in FAD in Kenyan universities. This study also argues that the evaluation of practical courses such as FAD should be externally evaluated continuously and even throughout the practical sessions. The study points out that the external examiners should handle manageable workload within a specified time for thorough evaluation to be done and that they should have qualifications on areas of specialization that are relevant to FAD. This observation agrees with Mbae's [24] who questions the justification of appointing external examiners. When the specialists in FAD are few, sourcing them from other countries is a better option so that the feedback from the evaluation of FAD courses becomes more relevant to the UUGFADPs.

Low Students' Interest and Competence

In the view of UFADS, some students lacked interest: few showed interest as most of them gave an impression that they were being forced to learn. The UUFADSSs and UFADS suggested motivation to students through more extracurricular activities such as fashion shows and clubs which would encourage them hence arouse interest in the program and give students an opportunity to compete. Other motivating factors proposed for UUGFADPs included hiring more male lecturers to change the image of the course and ensure gender balance, change of the name(s) of the program where necessary, introduction of FAD related courses in high school as an option, revival of textile and

apparel manufacturing industries, connecting students to attachment places that are relevant to FAD and those which will enrich them and networking students with industry to avoid prolonged search for jobs. In relation to students' experience from industrial attachment, it was suggested that the programs should be made to be more marketable and that FAD at degree level should be designed to appear different from that at lower levels such as at tertiary institutions. The UFADGs also suggested that the UFAD departments could organize talks to students by fashion designers that are currently in the lead and find mentors who have succeeded in fashion industry to encourage the students. Class fashion competitions according to the UFADGs could also be organized and prizes awarded to winners.

The UFADS noted that some UUFADSs were not competent due to the fact that they did not have a background in the FAD area while others had a lot of knowledge; therefore bringing the students to the same level was not easy. The UFADS hence suggested that all UUFADSs, upon admission, should have some background/entry knowledge in FAD, or a related area,

which can be tested through practical test/oral interview.

Given that some of the UUFADSs were admitted to the UFAD departments through the then Joint Admission Board (JAB), lack of interest in FAD by some UUFADSs could be due to the fact that in Kenya, most careers pursued by undergraduate students were dictated by the JAB and not necessarily by interests as noted by Muigai *et al.* [21]. It could also be, as observed by Edwinsson and Nilson [8], that most design students preferred to be industrial designers as a safer career due to a higher salary and ranking in the society and that male students particularly were discouraged about joining the fashion design profession as it was regarded to be of a lower status. This study agrees with Muigai *et al.* [21] who advocate for schools and/or faculties to have guidance and counselling departments with trained staff to guide students when making decisions regarding careers. The study further reiterates that courses such as FAD where students' interest is crucial should not be dictated by JAB (currently KUCCPS) but by the applicants' own choice.

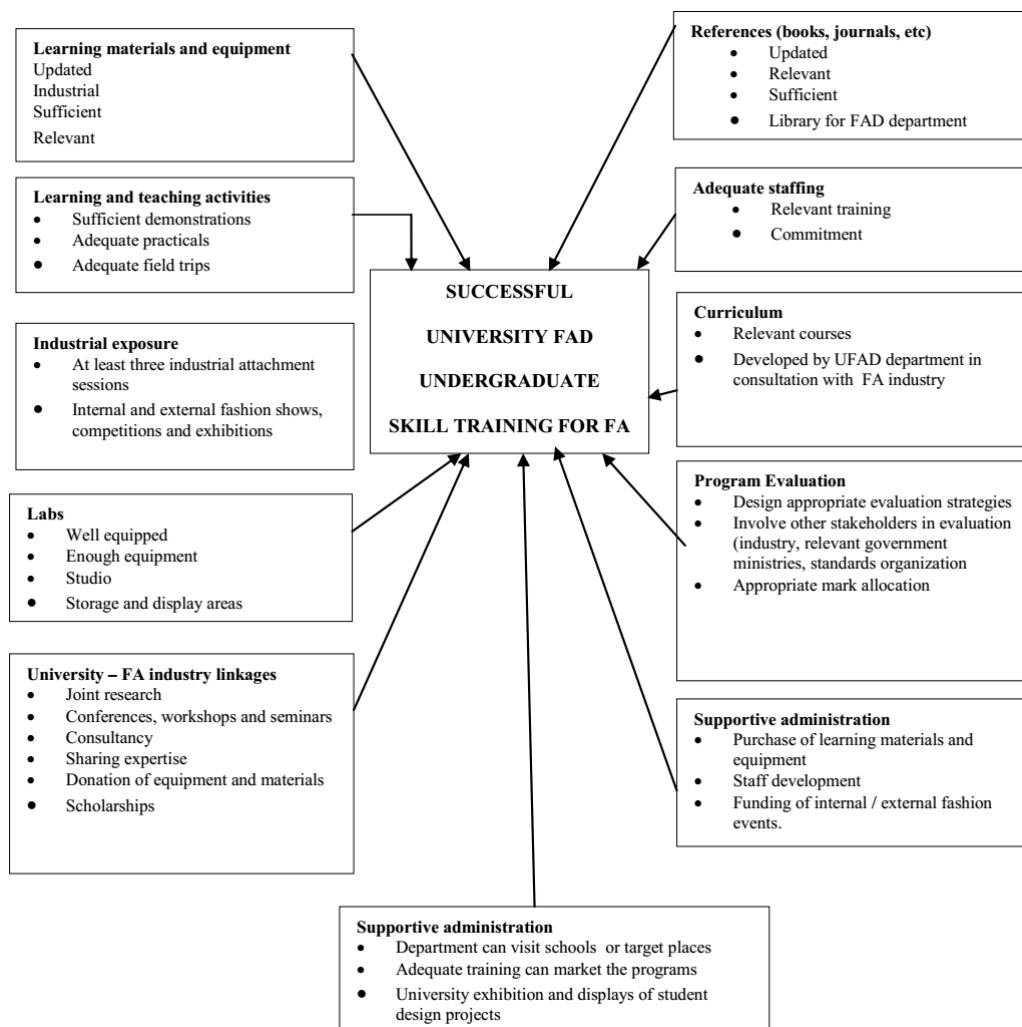


Fig-1: Success Determinants of UUGFAD in Skill Training for the FA Industry

CONCLUSION AND RECOMMENDATION

The most significant challenges facing the UUGFADPs included inadequate learning materials and equipment, obsolete technology; an outdated curriculum, inadequate staffing, inadequate practical training, insufficient learning/teaching space, inappropriate learning/teaching methods, inadequate industrial exposure and few reference materials. In view of these challenges, this paper notes that the challenges may have greatly rendered the UUGFAD training not relevant enough to the manpower needs of the FA industry. For the programs to be relevant, the challenges must be addressed by stake holders in the university and the FA industry. The key success determinants factors for a successful UUGFAD training for a competitive FA industry in the 21st century hence include: learning materials and equipment; references; learning and teaching activities; adequate staffing; industrial exposure; relevance of the curriculum; effectiveness of the labs; program evaluation university-FA industry linkages and support from university administration, as illustrated in Figure 1 below.

REFERENCES

- Mager D. China Textiles Curb a Little Relief for Africa. US; New Era (Windhoek). 2005.
- McCormick D, Rogerson CM, editors. Clothing and Footwear in African industrialisation. Africa Inst of South Africa; 2004.
- Brimble, P., & Doner, R. F. (2007). University-Industry Linkages and Economic Development: The Case of Thailand. *World Development*, 35(6), 1021-1036.
- Oigo EB. *A study of the training needs of quality control and production managers in clothing industries in Nairobi* (Doctoral dissertation). 2012.
- McCormick D, Rogerson CM, editors. Clothing and Footwear in African industrialisation. Africa Inst of South Africa; 2004.
- Gray KR. Entrepreneurship in micro-enterprises: a strategic analysis of manufacturing industries in Kenya: textiles, woodwork, and metalwork. University Press of America; 1996.
- Siringi S. Varsitys have failed to meet market needs. Daily Nation. 2005 Sep.
- Edwinsson L, Nilson A. Dignity IV: Fashioning Kenya-A study of Kenya as a market for domestic fashion brands. The Swedish School of Textiles. 2009.
- KURZ E. Analysis on fashion design entrepreneurship: Challenges and supporting models.2010.
- Yang MY, You M, Chen FC. Competencies and qualifications for industrial design jobs: implications for design practice, education, and student career guidance. *Design studies*. 2005 Mar 1;26(2):155-89.
- Eskandari H, Sala-Diakanda S, Furterer S, Rabelo L, Crumpton-Young L, Williams K. Enhancing the undergraduate industrial engineering curriculum: Defining desired characteristics and emerging topics. *Education+ Training*. 2007 Feb 20;49(1):45-55.
- Ogula P. *Re-Thinking of Investing in Education Provision in the Twenty First Century*. Paper Presented at Moi University 4th Annual International Conference, Eldoret, July 2008.
- Maiyo RC, Abong'o S, Tuigon'g DR. Establishing the Training Needs of Kenyan University Fashion and Apparel Design Graduates.
- Anonymous. *Keeping WIL Alive in South African Higher Education*. 2012. Retrieved from <http://www.waceinc.org> on February, 28th, 2016.
- Feather BL. Challenges of the 1990s: clothing and textiles enrollment trends and program issues. *Clothing and Textiles Research Journal*. 1996 Sep;14(4):234-41.
- Digolo DO. The challenges of education in Kenya in the 21st century. *the Journal of the school of education. The Educator*. 2006;1(1).
- Scott P, Watson D. Managing the Curriculum. Roles and Responsibilities. *Managing the University Curriculum. Making a Common Cause*. 1994:33-47.
- Kirsty D. *The State of Entrepreneurship in South Africa*. Paper Presented for FNB Business Banking at Mount Nelson Hotel. 2010; November, 17th, 2010.
- Rao V, Joshi HG. Entrepreneurship Training in the Apparel and Fashion Design Sector through Distance Mode: A Strategy for Facing the Challenge of Growing Unemployment in India. 2010.
- Riechi AR. Discussion Paper No. 113/2010 on Demand for Regular Academic Programmes Offered in Kenya's Public Universities and their Relevance to the Labour Market. Institute of Policy Analysis and Research (IPAR). Nairobi. 2010.
- Kamau MP, Kipruto J, Rutto-Korir R. Perceived relevance of undergraduate degree programs to students' career prospects: a case study of Moi University. *Educator (Eldoret, Kenya)*. 2007;1(2):185-97.
- Thuo OM. External Efficiency of University Education and Training in Kenyan Universities: Graduates' General Job Competencies in Manufacturing Industries. Master's Thesis, Maseno University, Kenya. 2005.
- Moncarz HT. *Information Technology Vision for the U.S. Fibre, Textile and Apparel Industry*. USA: National Institute of standards Technology. 2008.
- Mbae JG. A critical look at some aspects of learning evaluation in Kenyan universities. *Maseno Journal of Education, Arts, and Science*. 1995;2(2):162-70.
- Commission for Higher Education. *Kenya Careers Information Guide*. 2010.