SHAQODOON
ORGANIZATION

DIGITAL SKILLS: USER-CENTERED MARKET RESEARCH

Garowe, Puntland

2019

Contents

ABOUT THE RESEARCH REPORT

This document is the result of the User Centered Market Research about the Digital Skills literacy, usage, challenges and in-demand opportunities of digital skills in Garowe, Puntland State of Somalia. The report is describing the results of the research and methodology for data collection and analysis activities undertaken to identify and prioritize the potentiality of in-demand digital skills and other technical vocational skills for employability opportunities for youth in the marginalized communities and settings.

Also, the report highlights the potentiality of in-demand digital skills required by the different stakeholders and as well most realistic and desirable among target youth category, and best practices in the delivery of digital skill trainings as new vocational skills for employment ascending for youth to contribute their livelihood.

The research conducted was user-centered qualitative research targeted to the different stakeholder groups with Semi-structured indepth Interviews and mini/focus group discussions. The results are intended to inform the potentiality to extend similar academy of Hargabit to Garowe and as well the contents, design and instructional approach of the skill training and resource materials that are fundamental to successful establishment of similar academy in Garowe as a twin for HargaBit.

INTRODUCTION AND BACKGROUND

As part of the Work in Progress! Initiative funded by the Dutch Ministry of Foreign Affairs, Butterfly Works and Shaqodoon co-founded HargaBits digital design school in Hargeisa, Somaliland in 2016. The primary objective of the academy is to provide youth from disadvantaged backgrounds with knowledge in graphic designs, motion graphics, photography, web design, ICT skills, multimedia, and entrepreneurship to improve their opportunities for employment and/or self-employment. To further prepare youth for the workplace, the training also includes life skills and emphasizes personal confidence, communication, and self-esteem.

HargaBits Academy is part of a larger educational franchise that exists throughout East and West Africa as well as Pakistan that was established in 1999 by Butterfly, since its inaugural the larger franchise trained approximately 7000 youth who have been able to secure employment in both formal and informal sectors. While the Bits schools are part of a franchise that is founded on a core ICT curriculum, critical to the success of each school, for extension purpose and for sustainability, is the contextualization of the program to address the local conditions, market, and youth.

As such, to extend HargaBit academy to another city other than Hargeisa of Somaliland, a market and user understanding is the first step in getting what digital and technical vocational skills are supplied and demanded in the market and desired by the youth. The skills that are under study are those intended to engage youth and related trainings that is

currently available to youth – the skills being taught, the duration, and the impact/effectiveness/purpose of these skill trainings. Also, aim is to identify in-demand digital skills and other technical vocational skills for employability opportunities that are desirable, affordable and realistic to deliver for youth in the marginalized communities and settings in Garowe city of Puntland state of Somalia. However, Shaqodoon office of Garowe, undertook user-centered market research covering with above articulated understanding in October 2019, with broader aspect of empathetic learning the needs of the digital literacy and skills spectrum in terms of market supply and demand opportunities as well as challenges.

CONTEXT ANALYSIS

The population number of Puntland is estimated about 2.4 million. Puntland, is characterized an arid region that happens at the north-east Somalia, declared itself an autonomous state in August 1998 that is part of the Federal Somalia. The Capital is Garowe where the central government administration is based. Bosasso is a commercial city and the state port is located. Garowe, being the capital city of Puntland State of Somalia and the third largest district in Puntland with a population of 190,000 according to the District Development Framework (2014)[1],

However, the population of Puntland generally are affected by prolonged droughts that heavily affected the nomadic community and pre-urban settlement of the region. This made the population lost their animals which their livelihood was dependent and became underprivileged. Youth, women and children are the most vulnerable groups that these climate change impact affected. According to Somalia's NYP 2017, the Somali youth represent the most vulnerable group to these issues of climate change and environment destruction that signifies Internal Displacement – currently two persons in five are either an IDP or a returnee.

Such people are living on the margins of society, with limited resources and employment opportunities. This also results youth radicalization, violent extremism and terrorism – the Somali youth are among those who suffered from radicalization and violent extremism activities due to their vulnerability resulting from low level of education and unemployment[2], in addition, this results city insecurity, as youth creates neighborhood gangs that disturb community at night times. Due to this issues, many of these internally displaced people roamed in the cities for better life where they are settled in camps. As such, youth in Puntland are having a burden of unemployment to due to lack of skills and economic constraints to attain formal and informal education[3].

Additionally, extreme poverty causes youth migration both internally and to overseas. The fact is that there is high unemployment rate due to lack of employment skills. Considering extreme poverty, in Garowe, the percentage of youth living in extreme poverty (less than USD 1.25/day) are found in the commercial hubs and among internal migrants. In figures,

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[1] International Journal of Contemporary Applied Researches Vol. 6, No. 3, March 2019 - Article: *"Factors influencing youth unemployment in Puntland state of Somalia for the case of Garowe district"*; *Awil A.Yusuf; Prof. Willy Muturi and Prof. Mohamed Said Samantar.* Pp. 174-176;

[2] National Youth Policy of the Federal Government of Somalia, 2017

youth internal migrants living extreme poverty in Garowe are 84%, while 74% are nonmigrant and 64% are returnee youth according to IOM, 2015[3]. Hence, lack of employment skills adds the liability of poverty on youth. This results youth to risk their selves by migrating to overseas seeking better live and opportunities for survival.

OVERVIEW ABOUT DIGITAL LITERACY AND SKILLS

Ensuring that everyone has the right skills for an increasingly digital and globalized world is essential to promote an inclusive labor markets and to spur innovation, productivity and growth[4]. Based on the rapid rise and evolution of the Internet and digital media resulted in the new notion of digital literacy, partially overlapping with Internet literacy, ICT literacy, media literacy and information literacy. The digital economy is rapidly transforming the employment landscape across industries including financial services, health,

entertainment, transportation and, of course, information and communication technologies (ICTs)[5]. Hence, digital literacy are currently considered a prerequisite for the workforce and influencer simple to learn skill for work opportunity.

Digital skill capabilities are usually considered to be a collection of skills, attitudes and knowledge required for a certain task while using digital tool or technology. However, the abilities to apply knowledge and use know-how to complete tasks and solve problems with digital tools are defined as 'Digital Skills'.

In the context of Somalia, particularly the Puntland state, there are no existing vocational skills regulatory framework defining vocational skills, technical skills and digital skills either in cognitive aspect or in practical. Here the focus is, digital skills that are cognitive skills that require the use of digital tools in purposeful activities and can be observed and assessed in the workplace when contextualized in particular job roles or practical tasks.

Moreover, there are no research efforts as observed, to the best of our knowledge during this study period, that are concluded in assessing the perception of the different actors, in terms of digital market supply and demand in regarding the relative importance of digital skills. Henceforth, generally there are no studies peculiar for digital skills undertaken in the context of Somalia so far. It would be a good supportive evidence if found prior studies for evidence and informing how digital skills are perceived and provided plus the applicability of its good practices. However, this lack of knowledge shows the low literacy and competency of digital skills in the context of Somalia at large.

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[3] IOM (2015), Investing Somali Youth Report, p.20

[4] OECD (2016). Skills for a Digital World, http://www.oecd.org/employment/emp/Skills-for-a-DigitalWorld.pdf

[5] ITU (2014). Digital Opportunities: Innovative ICT solutions for youth employment, http://www.itu.int/en/ITU-D/Digital-Inclusion/Youth-and-Children/Documents/YouthReport_2014.pdf

RESEARCH METHODOLOGY AND PURPOSE

POPULATION

As this market research is user-centered which a formative research, employs qualitative ethnographic user research design. The population under study of this research falls under two extremes of users and non-users as follows:

- Non-users – any person that is Somali youth living in an IDP setting with basic education and/or having no skills for employment opportunity and aged 18 – 25 years and living in Garowe.
- Users – Any individual or entity that use or work digital related business products or services.
- Customers (as key users segment) – Individuals, entities, businesses, public and private institutions that utilize the services and products of digital market and skill etc.

SAMPLE SIZE AND SELECTION

Due to lack of reliable statistical figures to base the sample for this research, and at the same time the assignment is fully qualitative research method aiming to understand, from within, the subjective reality of the study participants; plus, bearing in mind, that the general rule in qualitative research is to continue to sample until you are not getting any new information or are no longer gaining new insights, and this will not be achieved through superficial knowledge about a large, representative sample of individuals, rather the aim is to reach people within the study area who can share their unique slice of reality, so that all slices together illustrate the range of variation within the study area.

This research will use combination or Mixed Purposeful qualitative sampling technique which allows triangulation, flexibility, and to meet multiple interests and needs based on the research purpose. As such, based on the population understudy, each category will be taken a purposeful sample of available sub-categories at the market.

User-Centered Design (UCD), commonly called Human-Centred Design (HCD), is a process and a set of techniques used to understand real existing challenges to create new solutions for the mattering problems. These solutions could range from, but limited to, social issues, academics, products, services, environments, organizations, and methods of interaction etc.

To achieve the in search solutions for the problems, the UCD should be one that is inclusive and interactive, whilst always putting at the core the people you are designing for. Additionally, solutions could not be attained if problems and context is not fully understood.

The purpose of this research was around three main points:

- To identify skills support needs of the target youth that are in high-demand by digital market and necessary for ICT entrepreneurs.
- To explore the potentiality to expand the Bits school to Garowe and the market needs of digital design skills in Garowe.
- To identify other possible and necessary high demand TVET skills in Garowe.

KEY INFORMANTS

In accordance to the above objectives, the tools utilized to collect data, at the stages of empathizing and field market and user research, was mainly Semi-structured in depth interviews with key businesses in the market and group discussions with non-user groups, particularly youth of marginalized community settings, that is, IDPs. And students whom are currently enrolled and studying vocational training skills. Below table summarizes key informants met and interviewed:

Table: key informants interviewed

Category	Institution	Information Collection Method
Public Ministries	• Ministry of Education and Science	Semi-structured, in-depth interview
	• Ministry of Labor and Employment	Semi-structured, in-depth interview
Corporates		
Public	• National Electric Corporation Somalia (NECSOM)	Semi-structured, in-depth interview
Private	• Gollis Telecommunication • Amal Bank	Semi-structured, in-depth interview Semi-structured, in-depth interview
Graphic Designers	• • Asal Jet Printing • Alpha Jet Printing Horyaal Jet Printing	Semi-structured, in-depth interview Semi-structured, in-depth interview Semi-structured, in-depth interview
Media	• Puntland State Television	Semi-structured, in-depth interview
Academic Institutions	• • Puntland State University • Institute of Marine Science Puntland Polytechnic Institute	Semi-structured, in-depth interview Semi-structured, in-depth interview Semi-structured, in-depth interview
International Organizations	• • Save the Children • Danish Refugee Council Care International	Semi-structured, in-depth interview Semi-structured, in-depth interview Semi-structured, in-depth interview

Local Organization	• Kaalo Development organization	Semi-structured, in-depth interview
	• Puntland Research and Development (PDRC)	Semi-structured, in-depth interview
Innovation Hubs	• Hanaqaad Innovation Hub	Semi-structured, in-depth interview
Commercial Businesses	• • Restaurants and Hotels Retailers and Wholesaler • Stores Supermarkets	Observation study Observation study Observation study
Youth	• • Unskilled Male Youth Unskilled Female Youth • Student learning Technical Vocational skills	Focus Group Discussion Focus Group Discussion Focus Group Discussion

Tools for data collection were pre-planned and were used as guiding tools. Questions being asked was not limited only to those in the guiding tools. Information to record was about local business's needs, employment issues, and youth behavioral perceptions relating to vocational skills. Also challenges and opportunities in the market based on demand of vocational and digital skills was recorded.

For this report we utilized qualitative, market research methods to gain in-depth, usercentered insights about our stakeholders. A user-centered approach aimed to understand, from within, the subjective reality of the study participants. Methodologically, the research went through four steps as follows:

- Gathering data, desk review about prior knowledge for the subject matter, key informant interviews and focus group discussions were carried to identifying user needs and developing initial ideas
- Make sense of all the possibilities identified from the research. Which matters most? Which should act on first?
- Key findings and insights were refined.
- Findings and concepts are finalized

RESEARCH SETTING UP AND STAKEHOLDER MAPPING

The research conducted departed from the identification of relevant previous available knowledge, experiences and pertinent information available, that is, literature search.

A stakeholder mapping followed to this literation review and identified research stakeholder categories. These stakeholders of the research were categorized into digital market businesses, public institution, and private international and local organizations implementing TVET trainings, academic institutions and youth members of marginalized communities at IDPs that are lacking skill for employability.

This made successful to reach a sample of categorized stakeholders that purposefully satisfied the data collection to achieve reliable recommendations *(see annex list of research stakeholder map in Puntland)*.

LIMITATIONS

There were several limitations for the data collection during the field activity. Major one was time frame, based on the user-centered research field work needs time bound that is sufficient to information recording and analysis, nevertheless, the field activity was only one round phase with limited days. This has the challenge of impossibility to go again to the field to gain additional information as you may figure out a need for additional information from the user/non-user prospective.

There was also a challenge of getting target stakeholders to interview due their availability. This challenge is not limited to only the field activity but it was a major limitation to the research work generally. Even as such, the time limitation does not pose a challenge of information or data insufficiency.

DATA COLLECTION, SYNTHESIS AND ANALYSIS:

After data collection, the data was organized, defined and categorized to come up a valuable and concrete insights that are shareable to the relevant stakeholders.

Affinity mapping was utilized to synthesize respondent data and come up with key findings and insights. The following steps were used:

1. Data collected is organized in a logical and manageable manner Figure 1Thematic grouping of findings
2. Data collected were referred in accordance to the research objectives.
3. Data exploring and uncovering findings – in relative themes, patterns and stories.
4. Finally, Identifying Insights

ETHICS AND HUMAN SUBJECTS ISSUES

Each participant will only be referred to their first name and their identity will not be traceable to their responses. All data will be destroyed, including the audio records during this study. Participants will be recruited voluntarily with their own consent to join an interview, focus group discussion and workshop. There will be no sensitive issues to be asked that is against their own behavior. Individuals could voluntary terminate participation and information provision at any time during activities, everyone has the right not to answer any question that he/she may not want to respond. All participants will be:

• Asked a permission to record their voice during interviews for the purpose of documentation only

• Provided the participant Consent Form and will be walked them through it as well will be read for them if they cannot read or write

• Given a time to review it and read it at their own pace, and ask them to sign it when they feel comfortable.

There will be no children recruited as participants, all participants wee mature and youth aged between 18 – 25 years.

FINDINGS AND INSIGHTS[6]:

The discussions brought about valuable information about user behaviors, perceptions and influences, existing limitations, motives and opportunities and recommendations about available potential market for digital vocational skills. This information is summarized as key findings and are categorized in different heading themes as follows

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KEY INSIGHTS

• Youth are uncertain to learn skills that are not supported by their families to their level of understanding, is opportunistic and needed in the market or saturated in the market because they think there is no more employment opportunities for these skills

• Public perceive the digital skill unfit for job-creation opportunity due to poor digital technology literacy.

• Low computer basic skill savvy holds back businesses to apply digital technologies and related skills.

• Digital skills will demoralize the bad stereotype that skill of informal education is for drop out people

• Supportive market environment and policies can make treasured vocational skills (i.e. digital and technical)

• Fees rate is a trigger for youth to learn or not to learn digital or technical vocational skills if they perceive a skill is saturated in the market.

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[6] Finding is a fact or statement that tells you what is happening, and insights tells you about the why question of the findings.

KEY RESPONDENT QOUTES:

"Market demand and our supply of skillful individuals are not balancing."

"In-demand digital services is limited due to scarce digital skilled people"

"Digital services is limited only to the level of market demand and market demand fo r services is connected to the level of digital know-how utilization."

Poverty, limited education options and lack of livelihood opportunities have had a tremendous impact in the lives of young men and women in Somalia. A number of international organizations provide Vocational Skills Training (VST) project activities in Garowe by partnering with accredited technical training institutions to offer the trainings. Purpose of these projects is to uplift skilled human resources, targeting both informal and formal sectors for employment of affected youth[7.] The vocational skills in the market are not yet balancing to the in-demand skills for available businesses services and other stakeholders in the market, both private and public sector.

Other research studies reveal as in an article of the Journal of Contemporary applied research, Vol. 6, No. 3, March 2019, the youth skills are not tailored with market demand, so there is lack of institutional linkage between training institutions and the labor market and this can be blamed for the Education Institutions and vocational training schools which has not been done a proper market research; hence, youth requires marketable skills which can match the demand of the market both private and public sectors.

As such, it's clear that there is low supply of skills while the demand is in place, hence delivering in-demand marketable skills, like digital skill and absent TVET skills would gear the needed vocational skills that constraint supply of in-demand skill. As such, partial market saturation resulting limited job opportunities for those skills available. The implementing institutions for existing and taught vocational skills are mostly international and local organization, which their vocation trainings are project based with limited time span of minimum 3 months and maximum 6 months. Likewise, these projects have no standardized criterion for targeting the varied youth of either urban neighborhood youth or new comer or an IDP youth, which their level of literacy primarily differentiates them. The curriculum pedagogical training design is not addressing to their dissimilar skill training approach and needs. At the same time, the limitation of available professional TVET trainers hinders the sufficiency of training quality.

This crafts a picture that Institutions do implement vocational skills through market assessments with real indicators though claimed they do. However, these projects provide superfluously the same TVET skills and there are no updates for existing TVET project curriculums and trainings provided. As of result of this, a very high drop rate (averaging 30%) has been observed in the TVET centers (PDRC 2013) and this yet persist. To improve this,

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[7] Marketable vocational skills assessment Report; The World Food Program (WFP), The Switzerland Development Cooperation (SDC) and Danish Refugee Council; Page 1, January, 2014

according to information provided by the TVET Department in the Ministry of Education, there is a public/private partnership arrangement with 10 leading companies in Puntland to enhance the TVET centers. The partnership is intended to have a duration of 10 years (starting in 2011) and plans for policy framework to regulate TVET. As such, there are no evidence and successful improvement for the situation, but contrarily there are other added up difficulties than previous of equipment shortage for trainings.

Moreover, target audiences of these projects are having limited accessibility of information getting with limited professional trainers that are having diverse skills in the market. This pushes up the turn-out rate of youth either dropping out or not interested to go for skill learning.

KEY RESPONDENT QOUTES

"Market demand and our supply of skillful individuals are not balancing."

"We didn't cover all needs due to scarce professional instructors"

"There are no policies and regulations set to improve TVET."

Nevertheless, employing turn out between the private and the public sector, the private sector is the main, as well as, the less controversial job creator in Puntland because the supply of labor is responsive to demand and therefore satisfies the actual need for employees[8]. It also provides an open-ended room for expansion and has better growth prospects as compared to the public sector. The public sector's job market, on the other hand, is generally less elastic and has lower labor absorption capacity than the private sector even though there are some initiative efforts to improve, In spite of the potential employment opportunities and market demand there is short run supply of skilled personnel equipped with digital design and development that fits the needs of the private sector. Businesses in the market are getting turbulence of the number of services they are willing to offer for their clients due to scarcity of skilled human resource to hire.

At the same time, users in the market demand different services for their choice based on their needs. As such, businesses offer limited services as a result of available skills. Henceforth, there are effecting factors in the market, the supply of skills delegates the offering of new services by the private business sector which increases skilled human resources demanded and also lifts the employment and job opportunities.

Youth males and females would most benefit bringing digital vocational skill training school, and more to females. For instance, bringing a new ideal of vocational skills, digital designing and development, may affect youth motivation of skill learning both males and females. Job-related division along gender lines may decline as digital skills are simple to learn skills that needs talent and creativity learnt by both male and female youth. The larger mass of technically skilled, flexible or casual workers are men. Social norms and belief in relation to kind of skill youth males and females could learn, makes youth females receive a quota of skills trainings like tie and dies, cooking and tailoring. However, a bit academy for digital designing and development will break the social norms that are limiting girl's vocational skills learning. On the other hand, gender digital skill roles will not be fully separated. Youth, both males and females, will equally begin working in these areas with similar benefits.

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[8] Puntland Youth: Challenges, Prospects and Opportunities, PDRC Report

Market stakeholder of both public and private will also get skilled human resources that are segregated gender wise.

EXISTING TVET VOCATIONAL SKILLS QUALITY AND SUSTAINABILITY:

Most of the vocational skills taught and available are project based with short time span to learn. Majority of them are more technical and there are very few soft-skills. Also, there are no tangible digital skills available and taught targeting all levels of users. The highest level of technological related is taken through formal education and provided by Universities as program with degree certification.

Available technical skills that are taught to the majority of youth whom don't complete their formal academics due to financial related circumstance among other reasons are as follows: Figure 3: Male youth participants ○ Electricity ○ Carpentry ○ Masonry ○ Cooking

- ○ Beautifying (make up skills for women salons)
- ○ Mechanics   ○   Auto-mechanics   ○ Painting ○ Welding ○ plumbing
- ○ Hotel and Restaurant services

Even those skills provided, youth perceive they have no quality and sustainability as they are mostly project based and they are not having positive outcome when it comes to chance of employability. Main reason is because of not updating the skills curriculum based on market dynamics and need changes, and as well projects limited time frames loosely equip students the skill. In addition to this, there are no traineeship programs that make students apply skill in a workplace prior of employment.
This makes youth hesitant to learn these skills as they are uncertain of the reliability of skill learning time. Youth also worry about the employability opportunity related to these skills, they have the perception that there are limited employability for saturated skills and there is nepotism for employing. With this, there are some people who got employed though internships and this depends on the trainers and institutions capability to do this for certain students.

KEY INSIGHTS

- Youth admire simple and inexpensive to learn technological related digital skills because of higher change of employability and skills availability.

- Due high drop out of TVET skill learning, Inventive digital skills will lift up the motivation of youth to learn vocational skills.

- Youth perceive employability is more prospective by learning a vocational skill, skills that are more modern than those available like digital designing

- Parents are not supportive to pay fees of children unless they are sure what they are learning,

TVET INSTITUTION AND FRAMEWORK POLICES:

Academically vocational skills (digital and/or technical) are not part of academic policies and there are not available frameworks to encourage the teaching of such skills. In addition to these, there is no coordination mechanisms to strategize the creation of demand and supply of TVET skills in the market. There are no clear cut public institution responsible for the improvement of TVET skills, this always creates competing argument of responsibility about TVET between the Ministry of Labor and Employment and the Ministry of Education and Science. However, there are recently ongoing activities to do some regulatory framework to guide TVET by the government and the president have appointed a committee to come up a plan and draft policy about this.

There is one TVET institute school that provide TVET skills in Garowe, the Garowe Polytechnic Institute, however, other implementing institutions are mostly partnering international and local organizations. In addition to this, most of these institutions provide more technical skills but not digital and technological related skills.

Higher education institutions, like Puntland State University (PSU) and Bosaso Universities, provide high level Information Communication and Technology academic qualifications, however, these skills are only affordable by those with good economic standards and livelihood. However, according the PSU department of computer science and information technology (ICT), the students whom graduate from this faculty are very small in number compared to other departments and the highest number of graduating students from the department are expected this year 2019 which are nearly 60 students if not even less than that. In that aspect, yet graduate students from universities are not filling the market need gap of in demand digital technology skill human resource. There is short fall of supply skilled human resource than demand.

Figure 2Interview session with one of the digital innovation hub in Garowe

Two digital hubs are available in Garowe named Hanaqaad Innovation Hub and Taakulo Hub (T-hub) the latter is owned by a local remittance company which aims to use for their financial services. The Hanaqaad, formerly known as Somali Innovative Hub (Si-Hub), performs some soft and digital skill trainings that are mostly limited to business incubation program training relating to business start-up ideas investments and plans as well as entrepreneurial skill trainings and also internship program. However, they also provide trainings on basic data networking and web designing. Nevertheless, these trainings are not provided in sufficient relative time for equipping trainees' full content skill for ultimate impact which result those learning demoralized and get hopeless to learn skills any more *(See annex 1 – case story).*

Additionally, such inadequate duration for teaching for example literacy, numeracy, carpentry, masonry and plumbing courses provide hind sight as to why a massive 70% of FFT/VST graduates fail to get jobs in the labor market[10].

[10] WFP, DRC, SDC (January 2014) – Marketable Vocational Skills Assessment.

YOUTH AND PUBLIC PERCEPTION ABOUT VOCATIONAL SKILLS:

Most the community, particularly families and parents, do not perceive that vocational skills (digital and technical) are fit to getting employment or could make a job-creation opportunities as a result of low awareness about digital information and literacy. Youth are only learning those skills that are simple and affordable to learn because of the financial constraints and as well they are getting support from their sponsors and having higher employability demand.

There is high illiteracy with in the community, however, most of the youth are not having basic literacy of reading and writing.

Figure 4: Female youth participants

Figure 5: Male youth group discussion

Moderately relative number among the youth are basically having Intermediate and high school education, though they haven't completed. Additionally, due to existing economic hardship of getting income and there is high level percentage of unemployment, parents are not supportive to pay fees of children unless what they are learning is free of charge or they are sure, to their level of understanding, is opportunistic and needed in the market. Additionally, most of the parents are supportive to their children when they are learning formal education. Due to these diverse competing issues, youth are exhausted from project based technical vocational skill trainings. Also other studies have proven the same finding in relation to youth and community perception for employment. According to an article in the Journal of Contemporary applied research, Vol. 6, No. 3, March 2019 titled Factors Influencing Youth Unemployment in Garowe of Puntland, the most common practices/perceptions that determine youth unemployment, is youth preference of office work, lack of political representation of youth, family dependency, community cultural norm thoughts and youth migration.

DIGITAL AND TECHNICAL SKILLS LITERACY AND UTILIZATION

There is a high level of ignorance related to basic literacy of computer skills. This has a negative side effect of the utilization of digital skills with in the stakeholders even there is a need to digital skills. Few centers are teaching digital skills to youth in general, basically Microsoft office package, basic hardware and software skills as well as networking. However, due to learning cost fees, many youth learn other technical vocational skills mainly electricity, plumbing, mechanics, cooking, tailoring and carpentry etc, which are sponsored by international organizations.

However, yet there is a huge need of digital skill services both in the private and public sector. In private sector, with higher employability than its complement, the biggest employer stakeholders demand digital skilled human resources are telecommunication, banks and remittance agencies. Following to these are the digital printing and publishing agencies and wider media. The public sector, though having limited employability opportunity, but still digital communication for information sharing are widely demanded. Many local business and traders with different services are not growing limitation of not utilizing digital technology and related skills. Many businesses asserted that to modern use of business services for digital equipment and technology skills, there is wider of available talent personnel that are skillful with these digital technologies. Based on the diverse service provided and the need for simplicity of client and users to get these services there is a need and there is hidden potential market for getting these skillful individuals. However, perhaps the breakdown in awareness between the business community and the "local community" could be addressed through mass media or advertisements that remind parents and youth that there is a huge need for staff with digital training in the private sector in collaboration with business community.
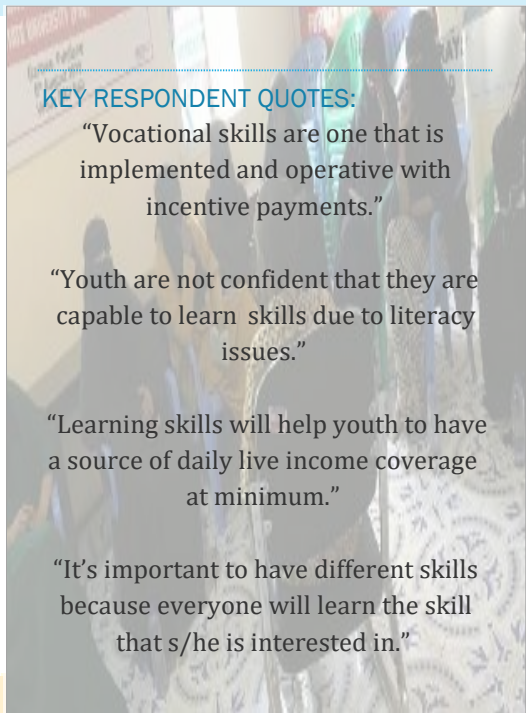
MARKET CHALLENGESS:

During the field activity research, a number of challenges were highlighted that is hindering the implementation of effective TVET skills, following were key factors among all:

1. *There are low literacy skills by majority of youth population:* TVET skills at least need that a student must have basic literacy skills that s/he can read or write.
2. *Tuition fees:* As vast majority of the population are unemployed, there is financial constraint circumstance that pushes back youth to learn skills and even families to support, as most the skills that are having quality are unaffordable by youth.
3. *Scarce professional TVET teachers:* There is a limited number of available professional TVET teachers. This has also limitation of providing diversified skills to learn.
4. *Lack of supportive framework and coordination plan:* stakeholders are lacking a comprehensive plan and policies that enable an environment that supports and encourages vocational skills.
5. *Limited Accessibility and information:* Vast majority of youth are challenged to get a mixed institutions providing diversified skills and they also lack mechanism of getting information about available skills to learn.

PROPOSED IN-DEMAND SKILLS IN THE MARKET

Below listed skills were recommended and has been shown desirable and high in-demand plus need to be promoted and introduced to the market to adopt its utilizations:

DIGITAL AND TECHNICAL SKILLS:

- o Data Management and Networking Skills o Graphic Designing:
- o photography o Multimedia skills: o video making and editing skills
- o Basic computer skills o Hardware and software skills o Mobile repairing skills
- o Programming and Software development skills:
- o Computerized accounting system development
- o Soft skills o Entrepreneurship skills
- o Small business development and partnership skills
- o Electronic equipment repairing skills o Cooling systems (i.e. Air Conditions, Fans and Refrigerators)
- o Digital printing machines repairing skills o Construction decoration skills o Aluminum decorations
     - Gladding and lighting decorations o Web-development and designing skills o Marketing skills
     - Social media marketing:
     - Digital advertising marketing skills

SKILLS IN PRIORITY BASED ON STAKEHOLDER'S CONCERN

Based on the suggested skills, however, below is categorized the key research stakeholders specific demand for certain skills, as such, this gives a picture of skills to be given priority based on stakeholder concern. Nevertheless, some skills were cross-cutting between the diverse stakeholders as below:

TARGET YOUTH

- o Graphic Designing:
     - photography o Multimedia skills:

               video making and editing skills   o Basic computer skills

               Hardware and software skills   o Programming and Software development skills:

               Computerized accounting system development

               Mobile repairing skills

MEDIA AND TELECOMMUNICATION COMPANIES:

o Graphic Designing o Multimedia skills:

               video making and editing skills   o Programming and Software development skills:

               Computerized accounting system development o Data Management and Networking Skills

MATERIAL RETAILERS, CONSTRUCTION/ELECTRIC COMPANIES, AND COMMUNITY

o Aluminum decorations o Gladding and lighting decorations o Computerized financial systems

DIGITAL PRINTING AND COMMERCAIL BUSINESSES:

o Digital printing machines repairing skills
o Marketing skills

               Social media marketing:
               Digital advertising marketing skills

PUBLIC AND LOCAL/INTERNATIONAL ORGANIZATION:

o Soft skills

               Entrepreneurship skills
               Small business development and partnership skills
               Report writing skills

CROSS-CUTTING SKILLS:

o Graphic Designing o Multimedia skills:

               video making and editing skills   o Programming and Software development skills:

               Computerized accounting system development o Data Management and Networking Skills
               Digital advertising marketing skills o Soft skills
               Entrepreneurship skills
               Small business development and partnership skills
               Report writing skills

Regardless the new marketable skills demanded by different stakeholders, however, there are ongoing opening opportunities that are daily demanded. These include skills that their human resources are not available inside Garowe, meaning no nationals having the knowledge of the skill are available, but has a potential employment creation in the short time as below: <u>Digital Technicians</u>

- o Mobile repairing skills
- o Digital printing machines repairing skills

<u>Electronic Technicians</u>

- o Electronic equipment repairing skills
    - Cooling systems (i.e. Air Conditions, Fans and Refrigerators) <u>Decoration</u>

<u>Designing for Construction:</u>

- o Aluminum decorations o Gladding and lighting decorations

A reliable possible solution of professional trainers is by contracting those alien technical personnel whom are currently dong this work in the city as trainers. With the supposition that these personnel may not have the theoretical training skills, as they were not researched, but they could be a hands-on trainers. The successful engagement of this would also have the benefit of apprenticeship by collaborating the concerning stakeholders in the market like telecommunication and construction companies. In addition to this, such handson training classes of these skills would also help those youth whom are illiterate to learn.

FEASIBILITY OF DELIVERING DEMANDED SKILLS:

Even though it's vital that learners should have basic literacy to acquire available vocational skills, however, illiteracy is confronting the possibility of delivering the demanded skills and attaining to supply the preferred quality of skillful people in the market depending on the criteria of hiring for skillful person by any business.

As such, there are three key factors that need to consider to deliver the learning of demanded skills in the market and provide quality skillful individual equipped with diverse skills of both digital and technical skills as follows:

1. <u>Cost Capability:</u> There are economic barriers in terms of financial aspect that many youth are unable to acquire available skills.
2. <u>Literacy of target audience:</u> Majority of youth displaced due to drought effects in the neighboring villages and they influx in the cities are illiterate, this poses challenge to train these target audiences as they are unable to matching the basic criteria to gain informal vocational skills of any.
3. <u>Practical learning equipment and space</u>: As there is wide illiteracy rate among youth, practically training is an alternative to overcome the literacy problem. However, the availability of practical learning spaces and equipment is a contributing challenging factor for feasibility of skills delivering generally.

4. <u>Digital skill trainers:</u> professional trainers is another issue. The existence of scarce and/or availability of digital skill trainers, signifies the need to focus this dimension in similar to the above three.

As such, despite these factors, the feasibility of delivering the skills in terms of market demand is fully operative, due to scarce skillful people and market need both in the meantime and future trend of market and economic growth in Garowe.

RESEARCH IMPLICATIONS/RECOMMENDATIONS:

Based on the above significant findings and insights, the research recommends the following has implications:

1. DIGITAL SKILLS ACADEMY:

Based on the skills available in the market and the growing business and economic status of Garowe city, and as well youth are very enthusiastic in getting and learning new technological related skills, making available an academy delivering vocational digital skills in Garowe is very prospective as there are no other alternative digital skills training centers that has the resource and the required quality.

In addition to this, the youth needs are more lined most diversity of available and accessible vocational skills, they are more interested about new contents and particular tools in acquiring the right technological related skills. That opens the possibility of tailoring the skills training to the background, context or interest of youth by varying the actual content available now and that could be brought to them.

The research recommends the following skills be delivered by the academy based on stakeholder demand ranked categorically follows:

TARGET YOUTH

- Graphic Designing:
  - photography ○ Multimedia skills:
  - video making and editing skills ○ Basic computer skills
  - Hardware and software skills ○ Programming and Software development skills:
  - Computerized accounting system development
  - Mobile repairing skills

MEDIA AND TELECOMMUNICATION COMPANIES:

- o Graphic Designing o Multimedia skills:
  - video making and editing skills   o Programming and Software development skills:
  - Computerized accounting system development o Data Management and Networking Skills

DIGITAL PRINTING AND COMMERCAIL BUSINESSES:

- o Digital printing machines repairing skills o Marketing skills
  - Social media marketing:
  - Digital advertising marketing skills

PUBLIC AND LOCAL/INTERNATIONAL ORGANIZATION:

- o Soft skills
  - Entrepreneurship skills
  - Small business development and partnership skills
  - Report writing skills

MATERIAL RETAILERS, CONSTRUCTION/ELECTRIC COMPANIES, AND COMMUNITY

- o Aluminum decorations o Gladding and lighting decorations
- o Computerized financial systems

2. A COMPREHENSIVE PLAN TO DELIVER THE SUITABLE ACADEMY:

In reference to the above existing challenges, and more precisely the wide gap of computer literacy skill and English language barriers, an academy of digital skills should be one that provide a preparatory basic knowledge to make youth better prepared to learn a digital vocational skill. Bearing in mind, digital skills are intended to be fundamental uplifting the employment opportunities of youth for better livelihoods, and that requires delivering the right curriculum and the actual tools and strategies.

3. PROFESSIONAL INSTRUCTORS AND RICH CONTENT:

The success of the digital skill training academy is connected to the resources made readily available to foster digital skill training and bringing the right experienced professional instructors that are competent and have the knowledge to actually deliver the theoretical and practical lessons that are having sufficient plans and guidelines, which are intended the actual training content that shall produce and applicable to the specific target youth and be specific to the background or intended context of the reality learning experience in the locality.

4. PRACTICE LABS AND/OR MAKER SPACES ESTABLISHMENT:

Successful implementation the could bring a huge impact of market supply of demanded skills is parallel establishing practices labs and/or market spaces that would have dual benefit, first, it would help to get a solution for the low literacy barrier that hinder youth to attain the vocational skill, and secondly, it would help that that students learning the skills to have the quality of practically doing the skill beforehand of coming into the market. This also helps the market stakeholders trust the quality of supplied skillful youth human resource in the market.

ANNEX 1: A CASE STORY ABOUT THE CURRENT TVET SITUATION

CASE STORY:

"... A 23 year old youth female participant told her experience story about TVET skill. She noted that she left school during her second class of high school due to economic related circumstances of her family. She said: "I wasn't learn anything for several years. It take me time to get a skill that I could get employment opportunity. After time, i heard about a local organization is enrolling women to train basic vocational skills. I decided to join and enroll to learn basic tailoring skill so I get some income to support myself and family. The skill training was intended to continue for six months. In the course of the third month of training the course suddenly terminated..." she also noted: "we have only get some basics about tailoring machine cloth measurement but this was only basics and was not a full skill that helps. However, when we asked the teachers about the problem we have been informed that the project terminated that was implementing the trainings. This was a waste of time and there were no quality and sustainability. I now get disappointed from the available skills and have no confident that I would get complete skill with good quality that could help me to get employment...however if I could get alternative skills like the technology that is different from what I have seen now that would help I think and I would learn...."

ANNEX 2: LIST OF RESEARCH STAKEHOLDER MAP

Category	Institution

Ministries	
Public	Ministry of Education and Science Ministry of Labor and Employment Ministry of Information National Port of Puntland – Boosaaso
Corporates	
Public	National Electric Corporation Somalia (NECSOM
Private	Gollis Telecommunication Amal Bank
Digital and Graphic Designers	
	Asal Jet Printing Alpha Jet Printing Horyaal Jet Printing
Media	
Public	Puntland State Television Radio Puntland
Private	SBC Radio – Bosasso Radio Midnimo –Bosasso Radio Daljir Radio Garowe Somali Broadcasting Corporation (SBC) Television – Bosasso Eastern TV Network (ETN) Puntland Post – news website Horseed Media – news website
Academic Institutions	
	Puntland State University East Africa University University of Boosaaso Institute of Marine Science Boosaaso Puntland Polytechnic Institute in Garowe
International Organizations	
	Save the Children Danish Refugee Council World Food Program Care International
Local Organization	
	Kaalo Development organization Puntland Research and Development (PDRC)
Innovation Hubs	

	Hanaqaad Innovation Hub T-Hub
Commercial Businesses	
	Restaurants and Hotels Retailers and Wholesaler Stores Supermarkets
Youth	
	Marginalized unskilled youth in IDPs settings Youth in the Technical Vocation Training institute

ANNEX 3: QUESTIONNAIRE GUIDE TOOL FOR INTERVIEWS AND FOCUS GROUP DISCUSSIONS:

I. TOOL FOR THE UN SKILLED YOUTH – YOUTH NEEDS PERSPECTIVE (FGD)

1. Identify the Needs of youth (based on existing market opportunities)
    a. What are the existing gaps for employment?
    b. What are the existing gaps in the youth skills for employment?
    c. What training skills are you interested in? Why do you like? Where can you learn? Are there places that offer these skills? What is the cost of learning these skills?
    d. Are there skills, that you are interested in, but not offered in your locality? What are they? Why do you like it?
    e. Have you ever taken or tried to gain skill trainings? Why or why not? What challenges prevented you to acquire?
    f. What would you do different other your formal education to learn skill for employment?
    g. What would you like to see for skills trainings? Solutions?
    h. Who would you like to conduct training skills? Why do you like?
    i. What are your views of skill training needs with respect to gender – females and males (girls and boys)?

II. TOOL FOR THE BUSINESSES – NEEDS REVIEW (DIGITAL BUSINESSES AND INFRASTRUCTURE BUSINESSES) - INTERVEIW

1. What industrial services do you offer?
2. Where do you source skilled employees? Materials? Suppliers?
3. What are your needs related to digital skills or Vocational skills?
4. Does your services match market needs – digital skills or other Vocational skills? Why or why not?
5. Are all of your functional services fully equipped with the required skillful labor?

III. TOOL FOR STUDENTS LEARNING SKILLS - STUDENT ASSESSMENT

1. What program (digital skill or TVET) are you involved it?
2. Why did you choose this training skill course?
3. Do you like this skill training course?
4. What would you change about this training skills currently available?
5. Is the training meeting your expectations? Why or why not?
6. What education did you receive earlier than this skill training?
7. What would you change about the courses training?
8. Did you feel prepared for market once you graduated? Why or why not?

IV. TOOL FOR ICT AND TVET INSTITUTES - INSTRUCTIONAL ASSESSMENT

1. What kind of trainings did you offer?
2. How long have do you instruct the training courses?
3. What training profession did your trainers receive to instruct the courses?
4. What do you like about instruction?
5. What are the strength of the institutions?
6. What are the gaps that need to be addressed?
7. Do you meet with Industry about content and curriculum?
8. What evidence do you have that Industry needs are being met?
9. How does the institution assess the success of the training courses?
10. How successful are your graduates in obtaining long term employment?
11. What barriers do you think exist to hinder for continuous training of some skills to have adequate skillful employees in the market?
12. What methodologies do you use in your training course to build the know-how experience of your trainees/Students?

VI. TOOL FOR GOVERNMENT INSTITUTIONS

1. What are the existing gaps in the TVET sector – digital and other skills?
2. Is there a national standard for TVET? If no, what work is being done to develop national standards? Who is responsible?
3. What are your measures of assessing the effectiveness of vocational schools?
4. Do you engage Industry on the effectiveness of vocational schools?
5. What role can market play in vocational education?
6. How do you see market participating in the Government's initiative in making employment opportunities?
7. Who needs to lead the reform of the vocational education or training sector?

VII. TOOL FOR WORKERS/EMPLOYEES:

1. How long have you been working here?
2. How were you recruited?

3. Where were you trained before recruitment? What is your level of qualification?
4. Do you feel confident to carry out your job?
5. Are there skills you need but you lack? Which specific skills?
6. Do you benefit from training skills you learnt from the Academy?

VIII. TOOL FOR INTERNTIONAL ORGANIZATIONS/UN AGENCIES

1. What is the role played by your institution? What are the activities that you do in TVET sector?
2. Does your institution have plans for TVET and labor market?
3. What are the strengths and weaknesses of currently applied TVET system?
4. How do you plan to change the Community perception in TVET?
5. How appropriate is TVET programs for the labor market?
6. What are the economic, geographic and social factors do your organization want to impact in TVET programs?
7. What are the ways of upgrading the situation of TVET?
8. What are the suggestions that you see appropriate to improve the performance of TVET schools and centers?
9. How can we increase the community awareness of the need and importance of upgrading TVET sector professionally and organizationally?
10. How to improve the quality of graduates from TVET schools and centers?
11. What are the mechanisms to be followed to guide the technical and financial support for TVET sector?
12. Do you think that the enrollment in TVET centers of after primary school is appropriate? Explain that?

ANNEX 4: INFORMED CONSENT LETTER

RESEARCH DESCRIPTION: As part of the Work in Progress initiative funded by the Dutch Ministry of Foreign Affairs, Butterfly Works and Shaqodoon co-founded HargaBits digital design school in Hargeisa, Somaliland in 2016. The primary objective of the academy is to provide youth from disadvantaged backgrounds with knowledge in graphic designs, motion graphics, photography, web design, ICT skills, multimedia, and entrepreneurship to improve their opportunities for employment and/or self-employment. To further prepare youth for the workplace, the training also includes life skills and emphasizes personal confidence, communication, and self-esteem.

Shaqodoon is conducting **User Centered Market Research for HargaBits** to make sure that the academy curriculum is responsive to the market and teaches skills that are in demand, while also being supportive and realistic in addressing the needs and experiences of the disadvantaged youth for whom it is designed for. This session should take you no more than **1 to 2 hours (30 to 60 minutes)**

CONFIDENTIALITY: All the data collected will be anonymous. Your identity will be protected to the extent permitted by law, including the Freedom of Information Act. Members from Shaqodoon, HargaBits Academy and other appropriate affiliated institutions may review the records of this study. The data will be used by Shaqodoon and HargaBits and their core management team to create in-demand digital and TVET skills benchmarks for youth employment opportunities. The data will not be

associated with any particular individual. All of the time, demographic data, and user and non-user experience and satisfaction data will be anonymous. All of the data will only be identified and linked together by an assigned code or tag, and will not be linked back to an individual in any way.

You are free to withdraw from the study at any time during the experiment. In total, we expect to have approximately 106 subjects to participate this research.

There are no risks involved in participating in this study, nor are there any immediate benefits. The long term benefits of this study should be improved voting systems.

"I have heard and/or read the above description of this research project. I have also met and spoken to the research consultant or Shaqodoon researcher, who answered any questions I had about this project. I acknowledge and agree to participate in this research and I understand that I may withdraw at any time. I also agree that an audio record or pictures could be taken from me for report writing purpose only."

Participant Name: _____   **Signature:** _____

Researcher/Consultant: _____

Date: _____