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## **How successful is the Higher Institute of Communications and Navigation, Kuwait, in reducing dependence on expatriates**

**Salah Al-Ali**

Professor, College of Technological Studies Kuwait, P.O. Box 261 Al-Surra, Post Code 45703, Kuwait

[drsalsali@yahoo.com](mailto:drsalsali@yahoo.com)

**Abstract.** The need for skilled and semi-skilled indigenous manpower in the gulf states (e.g., Kuwait, Qatar, United Arab Emirates) is highly noted in the related literature. Technical and vocational education is considered as a dual type of education system that allow students to transfer what they have learned in classrooms, workshops, and laboratories into real work environment. It is the ultimate solution, particularly for the gulf states, to overcome and/or reduce the rate of dependance on expatriates especially in essential sectors in their economy (e.g., oil, electricity and water, health sector). The governments of the gulf states have realized the urgent need to forge technical and vocational colleges and institutions hoping to close the gap with industries and business. Technical and vocational education is completely different from formal education and thus requires a careful design, planning, and monitoring to ensure meeting industrial and business current and future requirements. However, the success of technical and vocational education would depend, to great extent, on the type of management since it requires a specific knowledge, skills, and attitudes that are distinguished technical and vocational education from any other types of education. The Higher Institute of Communications and Navigation, HIC&N, was forged by the Kuwaiti Government with the aim to equipped local manpower with the know-how and know-why that are mostly needed by local industries. The research is focus on measuring the perception of a sample of heads of departments at the Ministry of Communications towards the quality of HIC&N graduates. The research is based on extensive field work that encompasses a review of the related literature, interviews with a sample of heads of departments at the Ministry Communications to assess the quality of field training program and the standard of the HIC&N graduates. Finally, the research will argue that unless the HIC&N recognize and appreciate the value of building a strong linkage with local industries, its contribution in tackling the shortage of skilled and semi-skilled indigenous in essential sectors on the economy will be below the government expectations, thus continuing relying on expatriates for years ahead.

**Keywords.** Technical and Vocational, Field Training program, developing Indigenous Manpower, Interaction between technical and vocational education and Local industries· Higher Institute of communications and Navigation, Kuwait

### **1. Introduction**

The role of technical and vocational education in enhancing indigenous competencies is highly discussed by observers, authors, and academics. In fact, there is a common understanding that technical and vocational education is a dual educational system that allow students to transfer what they have learned in classrooms, laboratories and workshops into real

work place. Technical and vocational education comprising education, training and skills development relating to various types of employment fields, production, services and livelihoods, (UNESCO, 2016), through which students would acquire the relevant knowledge, skills and attitudes required to perform a specific task or job (UNESCO, 2020), “education for work” that focuses on providing students with the knowledge, skills and attitudes required to successfully transition to the workplace (Chris, et.al., 2020), help in developing professional skills in youth, enhance their knowledge and scientific principles to meet industrial requirements (Billet, 2011), and providing students with a wider skills to be able to adapt to the changing workplace of the 21<sup>st</sup> Century (Frederika, 2019). Technical and vocational education is significant to life learning (Education International, 2019), has the potential to enhance employability (Victoria, et. al, 2021), ensuring lower dropout rates and facilitate the transfer from school to workplace by providing students with the right skills mostly needed by the employers, (OECD, 2021), and can open numerous doors for students and have the chance to learn a specific trade that will permit them to build an exciting career in area of specialization. (EHL, 2020) It is an education system that enhance industrial ability in diversifying products and services that are aiming in promoting countries economic progress. It is an opportunity to open a gate to labour market and tackling unemployment, particularly among youth. The number of youth employment increased by 4.4 million to 17.5 million. (U.S. Bureau of Labor Statistics report, 2020). However, due to the pandemic and its consequences, employment fell sharply and unemployment is higher than expected. The labor force of youth has significantly increased despite the global increase of youth population from 1 billion to 1.3 billion. (International Labour Organization, 2020) Many countries, particularly developing countries, have strengthening technical and vocational education to respond to the urgent demand of skilled manpower in labour market. Their aim is to create a strong linkage between youth competencies and related industries. Technical and vocational education and training has the potential to encourage employment of youth, diversify in productivity, and livelihoods of younger workers in developing countries. (World Bank, 2021, UNESCO, 2016) The role of teachers in technical and vocational education is highly discussed in related literature. (Sallimah, et., al., 2021, OECD, 2021, Muhammad, et., al., 2020) Teachers’ beliefs may be influenced through professional development for technology integration in the TVET curriculum (Sallima, et., al., 2021), the success of learning would depend on quality of teacher’s relationship with students (Gabriela, 2016), teachers must focus of career education, as a career is how teachers organized education to work after students leaving school (Education Service Austria, 2021), due to the changes in working life, innovations and variable skills requirements change rapidly the role of VET teachers and trainers. (NSVETT 2020) Technical and vocational education would permit lifelong learning opportunities to the youth, enhance their prospects of employability and reduce the demand and supply gap in the workforce market. (Mahendra, 2020) In fact, the NEP (2020) requires all educational institutions to include technical and vocational education into their offerings, thus possibly heralding its explosive growth in the country. A very large number of schools, colleges and universities will join the fold of TVET providers in the coming decade, making TVET available to millions of students while still at school, colleges and universities. (NEP, 2020) However, the continuing spread of Covid-19 in the world has created an unforgettable and significant consequences that affected the life of human being. It causes economic and social disruption that left millions of people without work. Covid-19 pandemic has placed a considerable pressure on the health infrastructure, labour markets and rate of employment to a degree never seen before. (UNESCO, 2020) In a survey conducted by UNESCO and World Bank on 126 countries revealed that 90% of respondents indicated total closure of TVET centers in their country and virtually 98% of respondents

reported disruption of work-place learning. (UNESCO., The World Bank, 2021) The unexpected and sudden closures of technical and vocational education colleges and centers has introduced, without hesitation, the online teaching which is without doubt cannot replace the quality of the present of students in classes, workshops, and laboratories. The majority of technical and vocational colleges and centers were unable to transfer the required skills, whereas others find a way through apprenticeship with highly precaution rules and procedures.

In Kuwait, as in many gulf states, the fast spread of Covid-19 has its unpleasant impact on the daily life of people. The transfer to online teaching platforms instead of face-to-face learning cause a considerable challenge to key figure at the Ministry of Education. The fact is that, not all lecturers and trainers are well equipped with online teaching platforms and the transfer of skills to students is out of reach and reality. This has caused a frustration situation not only in Kuwait but also in the gulf states who depend heavily on expatriates. The gulf states governments acknowledge the need to equipped indigenous manpower with the necessary knowledge, skills and attitude to enable them to work in local industries and business. The dependence rate on expatriates in the gulf states is high particularly in essential sector of their economy (e.g., oil and electricity and eater, health sector, infrastructure). The United Arab Emirates (UAE), like most of the gulf states relay heavily on expatriates' manpower (nearly 90% of the population), in the Kingdom of Saudi Arabia, it is estimated that expat constitute over 10 million out of its population, and half in Oman and Bahrain. (Sabena, 2020) The current population of Kuwait in 2021 is 4,328,550 a 1.36% increase from 2020. Expatriates account for about 70% of Kuwaiti population, among which 1.1 million Arab expatriates and 1.4 million Asian expatriates. (World Population Review, 2021) Due to the outbreak of Covid 19 pandemic and its impact on jobs declines, the employment level would expect to fall by at least 13%. For instance, in the Kingdom of Saudi Arabia, 1.2 million expats forecast to leave this year, and Kuwait planning to reduce expat numbers to 30% from its current 70% of the total populace. (Christopher, 2020) Decision makers in the gulf states have realized the urgent need to enhance indigenous capabilities by setting a plan to promote the availability of indigenous capabilities able to adapt, maintain, and manage the imported technology apply in local industries and business. Therefore, attention was diverted into technical and vocational education to respond to the need on skilled and semi-skilled national manpower particularly in essential sectors of the gulf states economy (e.g., oil and electricity and water, health sector, infrastructure). However, the success of technical and vocational education would depend on the management mentality in establishing an effective and fruitful collaboration with local industries and business. It is a management responsibility to identify and determine the level of knowledge, skills, and attitudes that are mostly required by the recipients of technical and vocational graduates. Kuwaiti key figures have appreciated the curial role of technical and vocational institutions in providing essential sectors of the economy with the skilled and semi-skilled indigenous manpower in order to reduce, to great extent, the dependence on expatriates. The Higher Institute of Communications and Navigation, HIC&N, was forged in 1970 by the Kuwaiti Government with the aim to "providing cadres and technicians in the field of telecommunications, navigations, both sea and air, science, maintenance and computer networks, which are needed by the public and private labor bodies in order to meet the needs of development plans". (The Public Authority for Applied Education and Training Website.) The Higher Institute of Communications and Navigation consist of the following departments: Department of Computer Sections, Department of Messaging, Department of PBX, Department of Navigation, Department of Electrical and Electronics, Department of English, Departments of General Materials, and Department of Basic Materials.

The Higher Institute of Communications and Navigation aim to equipped local national manpower with the know-how and know-why that are in urgent need of local industries and business. This would eventually help in reducing the level of dependence on expatriates and achieve, to some extent, the core objective of the country's workforce plan. The focus of this research is to examine how successful is the Higher Institute of Communications and Navigation, HIC&N, in reducing dependence on expatriates at the Ministry of Communications. It hopes that the results of this research would guide the management of the HIC&N in setting and implementing an appropriate and an efficient plan that would contribute significantly in enhancing the quality of the HIC&N graduates. Thus, reducing the level of dependence on expatriates at the Ministry of Communications.

### **3. Research Objectives:**

- a. To identify and examine the level of interactions between the Higher Institute of Communications and Navigation and the recipients of the HIC&N graduates (The Ministry of Communications).
- b. To identify and examine the perception of the selected heads of departments at the Ministry of Communications towards the quality of the field training program.
- c. To identify and examine the perception of the selected heads of departments at the Ministry of Communications towards the quality of the HIC&N graduates.
- d. To identify and examine those obstacles (if any) that might affect the quality of the HIC&N graduates.
- e. Discussions and Recommendations.

The outcomes of the research would indeed guide the management of the Higher Institute of Communications and navigation, HIC&N, to improve the quality of their graduates. In addition, enhancing the standard of academic staff and enrich their knowledge, skills and attitudes towards strong collaboration with the recipients of the HIC&N graduates. Overall, achieving the HIC&N objectives in providing the recipients of the HIC&N graduates with skilled and semi-skilled indigenous manpower. Thus, reducing dependence on expatriates at the Ministry of Communications.

## **4. Materials and Methods**

### **4.1 Design**

This research consisted of a descriptive survey designed to identify and examine the type of interaction between the HIC&N and the recipient of the HIC&N graduates (the Ministry of Communications). The research focused on whether students acquired the necessary knowledge, skills and attitudes that are suitable to the recipients of the HIC&N graduates. In addition to, examining the perception of the recipients of the HIC&N graduates towards the quality of the HIC&N graduates. The research focused on the requirements as well as the obstacles that may hinder the enhancement of the quality of teaching and learning at the HIC&N as well as the methods for strengthen the linkage with the Ministry of Communications.

### **4.2 Sample**

The research encompassed interviews with (10) heads of departments at the Ministry of Communications. The selected heads of departments have more than 15 years of working experience and have a direct contact with either the HIC&N students who are attending field training programs and/or the HIE graduates who are officially employed at the Ministry of Communications six years ago until now. Among the issued that were discussed are: the

attendance rate of the HIC&N supervisor, the methods of distributing students at the Ministry of Communications, the ability of students in using technical terms, whether students are familiar with the types of machines, devices, and tools, whether students are place in their area of specialty, ability of students in communicate in English language, the use of safety and health apparatus, and the level of students motivations to complete assigned job.

The research also focuses on examining the perceptions of selected heads of departments towards the quality of the HIC&N graduates who already working at the at the Ministry of Communications. Among the issues that were discussed are: ability to solve technical problem, ability to understand technical drawings, ability to understand electrical components, ability to understand electrical power stations sections, ability to understand and interpret electrical circuit networks, whether graduates are familiar with Fiber Optic System. Interviews were conducted with a sample of (16) graduates who are already working at the Ministry of Communications. The aim is to investigate and measure their views towards the quality of teaching and learning while they were attending the HIC&N.

#### **4.3 Instrumentation**

The target population for this research consists of interviews with (10) heads of departments at the Ministry of Communications. The selected heads of departments have more that 15 years of working experience and having either direct contact with the HIC&N students who are attending field training program and/or the HIC&N graduates who are officially working at the Ministry of Communications six years ago until now. The aim is to obtain an in-depth information on the quality of the HIC&N graduates and the level of work readiness. Interviews were conducted with a sample of (16) graduates who are already working at the Ministry of Communications. The aim is to investigate and measure their views towards the standard of teaching and learning while they were attending the HIC&N.

#### **4.4 Statistics and Parameters**

The statistics pertain to the sample. The parameters pertain to an entire population.

#### **4.5 The research parameters/sample are as follows:**

- (a) Interviews were conducted with (10) heads of departments at the Ministry Communications.
- (b) Interviews were conducted with a sample of (16) graduates who are already working at the Ministry of Communications.

### **5. Research Findings:**

#### **5.1 The Characteristic of the Research Sample.**

Interviews were conducted with (10) heads of departments at the Ministry of Communications. The selected heads of departments have more that 15 years of working experience and having either direct contact with the HIC&N students who are attending field training program and/or the HIC&N graduates who are officially working at the Ministry of Communications six years ago until now The objective was to examine their perception towards several issues related to field training program (e.g., ability of students in using technical terms, ability of students to understand and interpret electrical circuit boards, ability of students to communicate in English language, ability of students in using machines, devices, and tools), and evaluating the quality of the HIC&N graduates (e.g., whether students are familiar with Fiber Optic System, understanding electrical power stations, understanding and using main distribution frames, understanding jumper wires).

## **5.2 Measuring the level of collaboration between the HIC&N and the Ministry of Communications.**

There is no doubt that the collaboration between both parties would indeed enhance the quality of the HIC&N graduates. In addition to, improving the quality of the HIC&N curriculum, laboratories and workshops, safety and health procedures and rules, field training program, students' evaluation scheme, and implementing joint committee. Technical and Vocational education provides employers with skilled and semi-skilled manpower at the same time reducing the rate of unemployment specially among young generation. The rapid advancement of science and technology, particularly in production techniques and methods force technical and vocational education institutions to apply new learning and teaching techniques to respond to industrial needs and business requirements. On other hand, industries and business have to strengthen their relationship with technical and vocational education institutions in order to close the gap and thus enhance students and graduates' competencies in various field of production methods and techniques. The dynamics of relationship between technical and vocational education institutions and industries and business is highly stressed in related literature. (OECD, 2018, Australian Government Productivity Commission, 2021, Triki, 2008, Yorke and Knight, 2019) The contribution of a strong linkage between technical and vocational education and local industries and business is manifest itself in reducing rate of unemployment, particularly in youth unemployment (Simone 2020), enhancing students' knowledge and skills (The World Bank, 2017), and strengthening teachers' competencies and personality (OECD, 2021, Gabriela, 2016), reviewing and monitoring curriculum to respond to industrial needs (Bohmann, 2007), forming proper policy and strategy for future manpower needs analysis (Khawla 2011, Ministry of Education and Sports, 2019), enhancing and upgrading the learning process to be compatible with industrial requirements (OECD, 2021), and maintaining a strong partnership for ensuring a continuing future successful collaboration (Florinda, 2021). An effort has been exerted to interview selected heads of departments at the Ministry of Communications, and the types of collaboration between HIC&N and the Ministry of Communications is revealed below.

***Identifying the types of collaboration between the Ministry of Communications and the Higher Institute of Communications & Navigation, HIC&N.***

Joint Efforts in:	Available	Not-Available
Creating Data Base		✓
Setting Plan/Action Plan		✓
Curriculum Review & Development		✓
Updating Workshops & Laboratories		✓
Setting Student's Evaluation Scheme		✓
Setting Criteria for Assessing Graduates		✓
Consultancy Committee		✓

Note: The above findings obtained from the selected heads of departments at the Ministry of Communications.

Joint Efforts in:	Available	Not-Available
Conducting Joint Research		✓
Joint Seminars		✓
Health & Safety Protocols		✓
Needs Analysis		✓
Determining Level of: Knowledge		✓
Level of Skills		✓
Level of Attitudes		✓
Joint Meetings		✓

Note: The above findings obtained from the selected heads of departments at the Ministry of Communications.

Joint Efforts in:	Available	Not-Available
Assessing Field Training Program		✓
Setting Criteria for Student's Enrollment		✓
Sharing Technological Information		✓
Inviting of Experts		✓
Participation in Inventions Exhibitions		✓
Exchange of Staff		✓
Visiting the Recipients of HIC&N Graduates	✓	

Note: The above findings obtained from the selected heads of departments at the Ministry of Communications.

Selected heads of departments at the Ministry of Communications have been interviewed and questioned on the types of linkage with the Higher Institute of Communications and Navigation, HIC&N. The research revealed no tangible evidence of an effective collaboration with the recipients of the HIC&N graduates in various academic activities. Among the absent of significant aspects of collaboration were as follows:

a) The lack of data bank.

An effort has been made to identify whether the selected heads of departments have been approached by staff from the HIC&N for forging a data based. It is a crucial to established a data bank that would include names and contact numbers of those staff at the HIC&N who are responsible for teaching and training students to be ready to work at the Ministry of Communications. In addition to, gathering and storing relevant information and data regarding the number of students who are expected to be graduates from the HIC&N in the near future and the number of HIC&N graduates who are already working at the Ministry of Communications. It is highly advisable that the HIC&N have an access to the names and contact numbers of those who are supervising the HIC&N graduates at the Ministry of Communications to allow a free access to information and data regarding the quality of the HIC&N graduates. Regrettably, the findings of this research revealed that no data base or data bank have been allocated nor in the process of completion between both parties.

b) The lack of a plan and/or action plan.

An attempt has been made to investigate whether the selected heads of departments have a mutual plan set with the HIC&N to ensure high quality of graduates. Indeed, it is considered highly significant to set a professional plan that embedded objectives that are focusing on how to improve the standard of students at the HIC&N as well as on how to enhance graduates' competencies at the Ministry of Communications. A plan that consists of objectives that are

realistic and measurable to allow both parties (the Ministry of Communications and the Higher Institute of Communications and Navigation), to jointly review, monitor, and evaluate the standard of the HIC&N graduates. Unfortunately, the findings of this research revealed that no indication of a professional joint plan and/or action plan that encompasses essential and realist objectives or aims that are related to reducing dependence on expatriates, especially at the recipients of the HIC&N graduates, nor a plan that focuses on monitoring and assessing the quality of the HIC&N graduates.

c) The lack of joint efforts in curriculum development.

It is well understandable that curriculum design, review, and monitoring in technical and vocational education is different from its counterpart in formal education (e.g., schools, colleges, universities). Technical and vocational education is described as a dual system type of education that comprises theory and practical work at employer workplace. There is no doubt that the contents of technical and vocational curriculum focus on determining the level of knowledge, skills, and attitude that are mostly needed by industries and business. Therefore, the contribution of industrial and business in reviewing, updating, and monitoring curriculum in technical and vocational education is one of most priority of those who are running technical and vocational institution. In another word, industrial and business have to be involved in assessing the quality of curriculum, particularly those skills and attitude which are in current practice at industrial and business work place. The success of technical and vocational education graduates would depend, to great extent, on the degree of industrial and business involvement in setting practical and measurable criteria's in judging the quality of vocational graduates' competencies. The findings of this research indicated without doubt, that there are no efforts have been noted by both parties (the Ministry of Communications and the Higher Institute of Communications and Navigation) to review, monitor, update, and evaluate the curriculum at the HIC&N.

d) The lack of joint efforts in update the HIC&N laboratories and Workshops.

Indeed, science and technology are in a rapid change and efforts to cope and deal with the advancement of technological machines, devices, monitors, and tool is extremely difficult. When heads of departments at the Ministry of Communications questioned whether the HIC&N staff have contacted them for an advice for assessing and updating the types of machines, devices, monitors, and tools, the reply was negative "no". It is essential that students at the HIC&N to practice on recent machines, devices, monitors, and tools that are compatible with the technical facilities at the Ministry of Communications. Indeed, this would encourage students to practice what they have been learned at the HIC&N place into a real working environment. In addition to, strengthen the quality of the HIC&N graduates since they would totally familiar with the use of the same machines, devices, monitors, and tools that are available at the Ministry of Communications.

e) The lack of joint efforts in setting student's evaluation scheme.

The Ministry of Communications must play a vital role with the HIC&N in setting student's evaluation scheme that would contribute significantly in ensuring that students receive the right and relevant level of knowledge, skills, and positive attitudes that are in need by the recipients of the HIC&N graduates. A joint effort to establish student's assessment performance scheme must be one of most importance priorities of the HIC&N. The participation of the Ministry of Communications in forming those criteria related to the enhancement of the quality of the HIC&N students would indeed ease the way to a high standard of graduates. The joint

efforts in monitoring and adjusting student's performance criteria to respond to the advancement of technical machines and tools and production techniques and methods would reduce and/or overcome any obstacles that may occur when the HIC&N graduates formally employed at the Ministry of Communications. When heads of departments questioned to indicate if there is a joint effort with the HIC&N to forge student's evaluation scheme, the answer was negative "no".

f) The lack of joint efforts in assessing the quality of HIC&N graduates.

It is highly recommendable that both parties participate in evaluating the standard of the HIC&N graduates through joint committee. It is through such committee the heads of departments at the Ministry of Communications can provide a sincere and truly feedback on the competencies of the HIC&N graduates while they are officially employed at the recipients of the HIC&N graduates. In addition to, providing a useful information on the quality and accuracy of the level of knowledge, skills, and attitude that are acquired by the HIC&N graduates. A more useful information and data can be also provided by the Ministry of Communications on the performance and attitudes of the HIC&N students while there are on field training program. Despite the importance of such committee, no evidence has been allocated in respect to the existence of a joint committee between both parties (the Ministry of Communications and the Higher Institute of Communications and navigation) to evaluate the quality of the HIC&N graduates who are already employed at the recipients of the HIC&N graduates. The absent of a joint committee would, indeed, hinder the improvements of the quality of the HIC&N graduates.

g) The lack of joint efforts in conducting joint research.

Research and development are highly importance in solving various issues concerning the quality of the HIC&N graduates. A constant evaluation and monitoring of the competencies of the HIC&N graduates through research and development would prevent and overcome any escalation or deficiencies that might occur during their present at the Ministry of Communications. The joint research and development between both parties would allow a free flow of significant information and data and permit a fruitful exchange of experiences. However, the findings of this research revealed a clear absent of a joint research and development activities that would have, if well organised and implemented, a significant positive impact on the quality of teaching, learning, and training of the HIC&N graduates.

h) Joint efforts in conducting joint seminars.

A free exchange of information's and successful experiences between both parties would, without doubt, enhance the quality of students attending the HIC&N and its graduates. An active joint seminar between both parties is viewed as one of most academic activities that would help in improving the quality of the HIC&N graduates and in maintaining a strong relationship. Other aspects of strengthen collaboration can be also investigated to ensure free exchange of information and set a realistic recommendation for upgrading the standard of the HIC&N graduates.

i) The lack of joint efforts in enhancing safety and health procedures and rules.

The constant use of machines and tools would expose students and graduates to a certain hazard if safety and health procedures and rules not properly applied and monitored. Therefore, students and graduates who attend the Ministry of Communications must be aware of the risk involved when working in a hazardous area. It is highly recommended that the HIC&N cooperate positively with the Ministry of Communications to forge a safety and health

procedures and rule. This would strengthen the relationship between both parties and protect the life of students and those who are already working at the Ministry Communications.

j) The lack of joint efforts in determining needs analysis.

The HIC&N must be aware of the proximate number of those who should join the Ministry of Communications in the near future. It is the responsibility of both the HIC&N and the Ministry of Communications to forecast the need of graduates in different fields of speciality. The objective of determining need analysis is to help both parties in identifying the number of skilled and semi-skilled national manpower required by the Ministry of Communications in the coming years. Unfortunately, no sign of a collaboration between both parties in a joint effort to perform a proper manpower needs analysis nor in determining the number of graduate's that are required by the Ministry of Communications in the forthcoming years.

k) The lack of joint efforts in determining the level of knowledge, skills, and attitudes.

The Ministry of Communications are not interested in graduates who have extensive knowledge that are not relevant to their work techniques and methods. In addition to, avoiding those graduates who are not properly skilled to deal with the type of production machines and tools applied in their work activities. The recipients of the HIC&N graduates reject those graduates who show negative attitudes towards working outdoor or dealing with machines and tools. Thus, both parties must consider an effective collaboration to determine the level of knowledge they are required for those graduates before their employment. In fact, technical and vocational education is a dual system type of education that concentrate on specific knowledge that students and graduates must acquire before enrolling at the Ministry of Communications. It is the responsibility of the HIC&N to open the gate for fruitful interaction with the Ministry of Communications to agree on the current and future skills that graduates must obtained and able to practical in a real working environment. Attention must be also paid to students and graduates' attitudes since the recipients of the HIC&N graduates require sincere and honest skilled and semi-skilled indigenous manpower who are truly eager to work at the Ministry of Communications premises.

l) The lack of joint efforts in conducting joint meetings.

The management of the HIC&N must consider forging a joint committee with the Ministry of Communications. It is an opportunity for both parties to meet and discuss relevant matters concerning their interest and aspiration in meeting the country overall manpower plan. A joint committee would allow a free transformation of information and data and secure a continuing of a strong relationship between both parties so that objectives can be accomplished.

m) The lack of joint efforts in forging a consultancy committee.

A joint consultancy committee between both parties would not only strengthen relationship but also open a new window for a better and a successful contribution in achieving short, medium, and long-range objectives that are embedded in the overall country's manpower plan

n) The lack of joint committee in evaluating field training program.

The existing of a joint committee that focus on assessing the quality of field training program is highly recommended. It would provide both parties with the actual information on

student's real interaction with trainers and the ability to transfer what have been learned at the HIC&N into a similar work environment. Lecturers and trainers can absorb student while they are present on field training program and speculate whether students are sincerely interested in working at the Ministry of Communications. It is also an opportunity for students to familiarise with the type of machines, devices, monitors, tool, and working environment that they would expect to work in the near future.

o) The lack of committee for setting criteria for HIC&N students' enrolment.

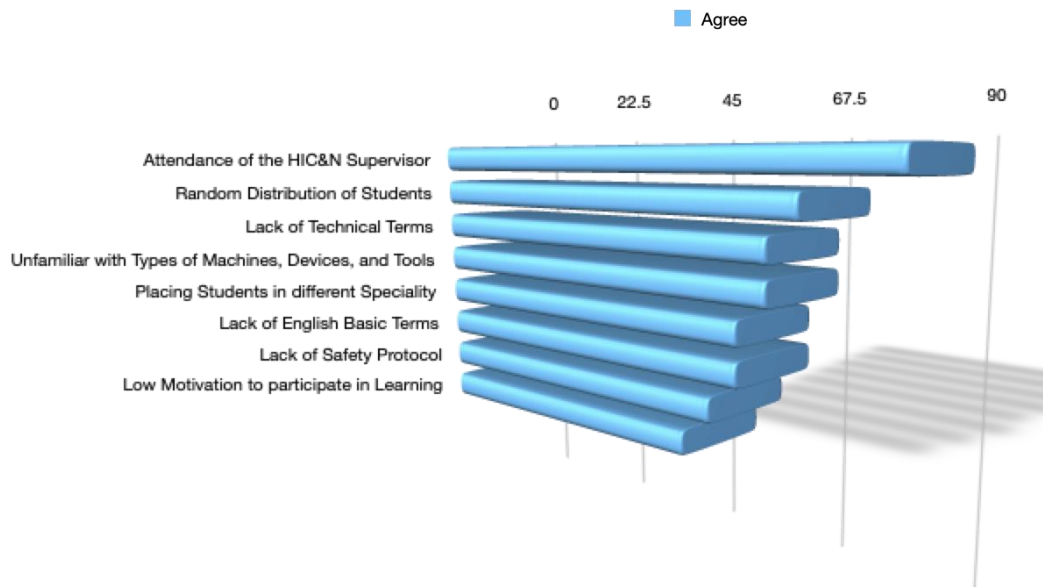
It is preferable that the HIC&N consider inviting a member from each of the recipient of its graduates in the selecting and interviewing committee for those who wishes to enrol at the HIC&N. Their involvement would contribute is evaluating candidates' personality and attitude since the recipient of the HIC&N graduates already have an extensive experience of the HIC&N graduates' personality and their real motive behind their willingness to employ at the Ministry of communications.

p) The lack of exchange of technological Information.

The exchange of a free technological information between both parties would light a shade on new scientific and technological machines, devices, monitors, and tools fall into the interest of both parties. The creation of an information channels between both parties would close the gap and allow for the movement of new information, new learning and teaching techniques, exchange of lecturers and trainers, and establishing contact with external counterpart education and training institutions. It is worth mentioning at this point that, there is evidence of staff visiting from the HIC&N to the recipients of the HIC&N graduates to exchange information regarding field training program.

### **5.3 Examining the perception of the heads of departments at the Ministry of Communications towards the quality of HIC&N field training program.**

An attempt has been made to examine the perception of selected heads of departments at the Ministry of Communications towards various aspects related to field training program. The findings are clearly showed below.



Note: The above percentages are an approximate estimation obtained from the selected heads of departments at the Ministry of Communications.

It highly notable in related literature that technical and vocational education is different from a formal education that is taught at formal schools and universities. It is well acknowledged that technical and vocational education is perceived as a dual type of education system. This indicates that students spend certain time in industrial and business premises hoping to transfer what has been acquired in classroom, workshops, and laboratories into real work place. The main characteristic of a dual system is an apprenticeship which connects technical and vocational institutions with real workplace. It is an a “golden” opportunity that allow closing the gap between both parties (the Ministry of Communications and the HIC&N) in order to facilitate the transfer of students from technical and vocational institutions to work place. The findings of the research showed that approximately 55%-70% of the selected heads of departments at the Ministry of Communication “agree” that students who attended field training program lack essential skills in English basic terms, safety protocol, technical terms, unfamiliar with types of machines, devices, and tools, and low motivation in participating in the learning process. The majority (approximately 75%) of the selected the HIC&N graduates who are already working at the Ministry of Communications confirmed that the distribution of students for field training program is conducted randomly based on the readiness of the recipient’s sector rather than students’ area of speciality.

#### **5.4 Examining the perception of the heads of departments at the Ministry Communications regarding the quality of graduates from the Higher Institute of Communications & Navigation, HIC&N.**

An effort has been exerted to assess the quality of the HIC&N graduates who are already working at the Ministry of Communications six years ago until now. Interviews have been conducted with selected heads of departments at the recipient of the HIC&N graduates and the results are revealed below.

Quality HIC&N Graduates		
Elements	%	Comments
Lack of English Language Skills	95%	Lack of Skills
Lack of Microsoft Skills	75%	Lack of Skills
Lack of Safety and Health Procedures	75%	Lack of Skills & Attitudes
Inability to Solve Technical Problem	85%	Lack of Skills
Inability to Understand Technical Drawings	80%	Lack of Skills
Inability to Understand Elect. Components	70%	Lack of Knowledge & Skills

Note: The above percentages are an approximate estimation obtained from the selected heads of departments at the Ministry of Communications.

The above findings indicate, without doubt, that the majority (approximately 70%-95%) of those who graduates from the HIC&N lack significant skills related to their area of specialty. As expected, approximately 95% of the selected graduates lack English language skills, and 75% of the total unable to use Microsoft programs in an acceptable manner. Safety and health procedures and rules are essential since graduates would work in a hazardous working environment and the probability of accidents occurrence is very high and could be an expected. The HIC&N must ensure students are well aware of safety and health procedures and rules and must practice applying a high standard of safety and health precautions, since approximately 75% of the total ignore safety and health procedures and thus not using safety apparatus. It was also noted that 85% of the total unable to identify and deal with technical solving problems, approximately 80% of the total show unacceptable knowledge and skills in reading or understanding electrical or technical drawings, and approximately 70% of the total are not familiar with electrical devices components.

Quality HIC&N Graduates		
Elements	%	Comments
Inability to Understand Power Station Sections	70%	Lack of Skills
Inability to interpret Elect. Circuit Networks	65%	Lack of Skills
Lack of Technical Terms	55%	Lack of Skills & Knowledge
Unfamiliar with Fiber Optic	95%	Lack of Skills & Knowledge
Lack of Main Distribution Frame	65%	Lack of Skills & Knowledge
Inability to Understand Jumper Wires	75%	Lack of Skills & Knowledge

Note: The above percentages are an approximate estimation obtained from the selected heads of departments at the Ministry of Communications.

It is inevitable that graduates from the HIC&N would work in power stations and the need to enhance their knowledge and skills in the various aspects on the operations and possible hazardous involved must be considered as one of the HIC&N priorities. However, approximately 70% of the total selected graduates are not familiar with the electrical power station sections. When asked to evaluate the ability of graduates in interpreting electrical circuit networks, approximately 65% of the total were unable to describe in details the electrical circuit networks. In fact, approximately 55% of the total lack essential technical terms related to their area of specialty, and approximately 95% of the total completely unaware of what fiber optic components and contribution to the advancement of communications and information flow and exchange. In addition, approximately 65% of the total seems unaware of types of electrical distribution frames, and cannot differentiate between main distribution frame, MDF, and intermediate distribution frame, IDF. The lack of knowledge and skills regarding the meaning and function of main distribution frame, MDF, room is also notable by selected heads of departments at the Ministry of communications. Despite the importance of jumper wires (use with breadboards and other prototyping apparatus to easy replace a circuit when required), approximately 75% of the graduates are incapable to understand how much current a jumper wires handle nor having an idea about how much power can a breadboard can handle.



Quality HIC&N Graduates		
Elements	%	Comments
Inability to Understand TEL. Wires Codes	65%	Lack of Skills & Knowledge
Inability to Fix Cabin and Wire Phones	75%	Lack of Skills & Knowledge
Inability to Retrieve Cable Source	70%	Lack of Skills & Knowledge
Inability to Retrieve Warning Sound Faults	70%	Lack of Skills & Knowledge
Inability to Write Short Technical Report	80%	Lack of Skills & Knowledge
Inability to Perform Electrical Maintenance	75%	Lack of Skills & Knowledge

Note: The above percentages are an approximate estimation obtained from the selected heads of departments at the Ministry of Communications.

Telephone companies tend to connect the phone lines at their termination block in a specific order. Normally, when connecting phones to a domestic residence, the phone company use four wires with different colors and codes. When heads of departments questioned about graduates' awareness of telephone wires codes, approximately 65% of the total seem unaware of numbers, colors, and codes of domestic telephone wires. It is revealed that approximately 75% of the total graduates unable to fix telephone line cabin nor to retrieve cable source (approximately 70%) of the total graduates. Other issues related to telephone cables which graduates have minor knowledge are: meaning of Registered Jack-11, RJ11 telephone cable, the use of Coaxial Cable, and the different between RJ11 and RJ12. It is essential that graduates equipped with the skills needed to identify and interpret warning sounds and lights when using electrical devices or working in power stations since approximately 70% of the total are unaware of identifying and tracing warning signed and sounds. The findings revealed that despite the importance of communication and exchange of information graduates (approximately 80% of the total) found incompetent to write a short technical report to exchange information and/or communicate with foreign contactor employees. The purpose of electrical maintenance is to ensure smooth running of all electricity-powered aspects to avoid possible electrocution from sparks, electrical fires, and causing considerable loss to life and to electrical device, generators, and even main electrical power stations. The selected heads of department have voice concern about the inability of graduates (approximately 75%) of the total to secure, maintain, and protect electrical devices and machines from being exposed to damage. In fact, graduates found to be unaware of the main safety rules in electrical safety, electrical maintenance checklist, electrical preventing maintenance, methods and duration of cleaning electrical panels, and the consequences for neglecting of not conducting electrical maintenance.

Quality HIC&N Graduates		
Elements	%	Comments
Inability to Understand Elect. Transformer	65%	Lack of Skills & Knowledge
Inability to Understand Routes of TEL. Cables	75%	Lack of Skills & Knowledge
Inability to Perform Viber Opic Welding	80%	Lack of Skills & Knowledge
Inability to Perform TEL. Terminals	70%	Lack of Skills & Knowledge
Inability to Understand Digital Circuit Board	65%	Lack of Skills & Knowledge
Inability to Identify Types & Strength of Electrical Faults and its Consequences. 85% (Lack of Skills & Knowledge)		
Inability to Understand and Deal with Electrical Commands 75% (Lack of Skills & Knowledge)		

Note: The above percentages are an approximate estimation obtained from the selected heads of departments at the Ministry of Communications.

The selected heads of departments have been asked to evaluate the level of graduates' understanding of electrical transformer, which is responsible for increasing or decreasing voltage. The majority of graduates (approximately 65%) of the total lack an understanding of the main function of electrical transformer. In addition, graduates were found to be unaware of the three types of voltage transformers and their usage: VT, electromagnetic, capacitor, and optical. In addition, graduates (approximately 65%) of the total were also unaware of the difference between set-up and set-down transformer, power transformer, distribution transformer, and instrument transformer, single and three-phase transformer, and auto transformer. When asked to indicate whether the selected graduates have enough knowledge and skills regarding the routes of telephone cables from the main booth to the central telephone stations and methods of distribution to residence houses, the selected heads of departments stated that approximately 75% of the total lack such essential skills. Due to the increased demand for computer networks, telecommunications systems, exchange of data and information, and maintaining speed and security, the telecommunications cable must be grounded and bonded to ensure power effectiveness and prevent loops or transients that can cause damage to sensitive and expensive equipment. The Ministry of Communications has introduced Fiber Optic to transmit data and information as pulses of light via strands of fiber made of glass. It has a speed of 25001,000Mbps in both directions for faster use for telecommunications services such as internet, television, and telephones. The research findings revealed without doubt that approximately 80% of the total graduates do not have sufficient information about fiber optic usage, whether it is safer than WIFI, its negative effect on health, usage purposes, disadvantages that are resulting from the use of fiber optic, types of fiber optic cables, type of light used for fiber optic, methods of fiber optic welding (e.g., termination or connectorization) and how it can be compared to 5G. A telephone terminal is a device that ends a telecommunications link that receives and sends signals for network usage (e.g., computers, laptops, fax machines). Not surprisingly, approximately,

70% of the total graduates are lacking a notable knowledge and skills in performing telephone terminals boards nor in identifying types of telephone terminal boards (e.g., christmas tress terminal block, push punch block, high end surge suppressor, communications patch panel terminal block). Digital Circuit Boards is considered as an alternative to the circuit theory approach, stress on energy flow rather than just signal interconnection to explain logic circuit behavior. (Ralph, 2012) There are different type of digital circuit boards and approximately 65% of the total graduates are unaware of the types, importance, and function of Digital Circuit Boards. The issue of electrical safety and health is highly emphasis in related literature. (Gov.UK, 2020, Kevin, 2020, Pelsue, 2021) There are different types of electrical faults which graduates must be aware and can handle in a safe manner (e.g., open circuit faults, short circuit faults, fuse, circuit breakers, symmetrical and unsymmetrical faults). (Electronics Hub, 2015) The selected heads of departments confirm that approximately 85% of the total graduates seem lacking a significant knowledge and skills in allocating and handling electrical faults. It is important to understand the operation of an electrical circuit in order to identify the devices on the control panels and to identify the commands and the power that are considered the main components of the operation circuit. The need to understand the commands buttons and its functions is crucial to operate the electrical devices and to avoid any unexpected electrical faults that might cause loss of lives. Regrettably, 75% of the total graduates are not competent to absorb the concept of electrical commands, types of commands, functions, interaction between commands and various electrical communication devices, and methods of layout on the control panels.

Quality HIC&N Graduates		
Elements	%	Comments
Inability to Understand Mechanical Generator	45%	Lack of Skills & Knowledge
Inability to Work Outdoors	50%	Lack of Attitudes
Depending on Contractors Skills	75%	Lack of Attitudes
Lack of Interpersonal Skills	85%	Lack of Skills & Attitudes
Inability to Understand and handle TEL. Wiring Booth and the way its Connected to the Main TEL. Central Station (90%) Lack of Skills		

Note: The above percentages are an approximate estimation obtained from the selected heads of departments at the Ministry of Communications.

When heads of departments questioned to measure the level of graduate's knowledge and skill in mechanical generators that are applied at the Ministry of Communications, heads of departments indicated that approximately 45% of the total graduate's encounter difficulties

in dealing with mechanical generators. When graduates asked to identify the types of mechanical generators, only approximately 34% of the total provided a correct answer (alternative and direct current). It was also revealed that approximately 65% of the total who are aware that a generator converts mechanical energy into electrical energy. The selected graduates were lacking knowledge on the life duration of a generator, the different sizes of generators, the forces that are require to operate a generator, the scale of generator, and the duration that a generator can continually be running. Due to the high temperature in the summer that reaches 50 centigrade in the shade, graduates (approximately 50% of the total) oppose the idea of working outdoor and left the completion of job to contractor foreign employees and thus depending (approximately 75% of the total) on contractor skills in conducting a certain task that graduates are supposed to complete by themselves. However, due to the existence of a contract agreement, graduates were reluctant or missing the opportunity to acquire specific knowledge and skills that are essential to their future career. The selected heads of departments have noted the lack of graduate's interpersonal skills (approximately 85% of the total) such as: communication skills, solving problem skills, coping with work stress, self-development, and creativity.

Quality HIC&N Graduates		
Elements	%	Comments
Customer Care Skills	0%	Acquiring the Necessary Knowledge & Skills
Complete Paper Works	0%	Acquiring the Necessary Knowledge & Skills
Conducting Technical Examination	65%	Lack of Skills
Solving technical Problems	65%	Lack of Skills

Note: The above percentages are an approximate estimation obtained from the selected heads of departments at the Ministry of Communications.

In respect to customer care unit; an attempt has been made to measure the perception of the selected heads of department to the quality of services provided to clients. No objections have been noted on the quality of services provided from the customer care unit, however, selected heads od departments express their frustration from the lack of graduate's skills (approximately 65% of the total) in identifying the precise technical problem encounter and the ability of graduates in solving the existing technical problem (approximately 65%) of the total graduates.

## **6. Summary, Discussions and Conclusions.**

The importance of communications in exchanging information and data is considered essential part of our daily life. Telecommunications infrastructure is the main base or strong foundation for industries, business, schools, colleges, hospitals, and families to share and exchange information's by using a high technological communications systems and devices. It worth mentioning that the term "communications" is derive from the Latin word "communis" which means "to share". In technical and vocational education perspective, communications are the ultimate methods for transferring knowledge, skills, and attitudes to students. It is a powerful tool to advice and educate students as well as lecturers and trainers about new ideas and new teaching techniques that would facilitate the transfer of students from classrooms, workshops, and laboratories into real work environment. The continuing spread of Covid-19 in the world has created an unforgettable and significant consequences that affected the life of human being. It causes economic and social disruption that left millions of people without work. Covid-19 pandemic has placed a considerable pressure on the health infrastructure, labour markets and rate of employment to a degree never seen before. (UNESCO, 2020) In a survey conducted by UNESCO and World Bank on 126 countries revealed that 90% of respondents indicated total closure of TVET centers in their country and virtually 98% of respondents reported disruption of work-place learning. (UNESCO, The World Bank, 2021) The unexpected and sudden closures of technical and vocational education colleges and centers has introduced, without hesitation, the online teaching which without doubt cannot replace the quality of the present of students in classes, workshops, and laboratories. The majority of technical and vocational colleges and centers were unable to transfer the required skills, whereas others find a way through apprenticeship with highly precaution rules and procedures. The conversion to online teaching showed a crucial deficiency in some countries due to the lack of electricity, access to internet connectivity, communication apparatus, and inadequate preparation and readiness of lecturers and trainers to convert to online platforms. According to an international survey, many countries and training providers were insufficiency prepared to cope to the pressure resulted from covid-19 pandemic. (International Labour Organization, 2021)

In Kuwait as in many gulf states (e.g., United Arab Emirates, Bahrain, Oman), The shortage of skilled and semi-skilled is highly noted in essential sector of the economy. Expatriate form approximately 88.5% of the United Arab Emirates population, 70% in Kuwait, and 53% in Bahrain. The Kuwaiti government, as in other gulf states, has realized the importance of enhancing indigenous capabilities, particularly in essential sectors of the country's economy (e.g., oil, electricity and water, health sector, infrastructure). As a result, the Kuwaiti Government has established the Public Authority for Applied Education and Training, PAAE&T, which has five colleges and eight training centers. The Higher Institute of Communications and Navigation, HIC&N, was forged in 1970 by the Kuwaiti Government with the aim to "providing cadres and technicians in the field of telecommunications, navigations, both sea and air, science, maintenance and computer networks, which are needed by the public and private labor bodies in order to meet the needs of development plans". (The Public Authority for Applied Education and Training Website.) The Higher Institute of Communications and Navigation aim to equipped local national manpower with the know-how and know-why that are in urgent need of local industries and business. This would eventually help in reducing the level of dependence on expatriates and achieve, to some extent, the core objective of the country's workforce plan. The findings of this research suggest that there is no concrete evidence have been allocated for a strong collaboration between the HIC&N and the Ministry of Communications in various importance aspect of academic and practical activities. In respect to evaluating the quality of graduates who are already employed six years ago until

now, at the Ministry of Communications. Interviews were conducted with selected heads of departments. The selected heads of departments have more than 15 years of working experience and have a direct contact with either the HIC&N students who are attending field training programs and/or the HIC&N graduates. The findings of this research revealed that quality of the HIC&N graduates is below the accepted standard. The link between the Ministry of Communications and the Higher Institute of Communications and Navigation is absent in various essential aspect such as: joint efforts in creating a joint data bank, setting a plan/action plan, joint efforts in curriculum development, joint efforts in update the HIC&N laboratories and Workshops, joint efforts in setting student's evaluation scheme, joint efforts in assessing the quality of HIC&N graduates, joint efforts in conducting joint research and development, joint efforts in enhancing safety and health procedures and rules, joint efforts in determining needs analysis, joint efforts in determining the level of knowledge, skills, and attitudes, joint efforts in conducting joint meetings, joint efforts in forging a consultancy committee, joint committee in evaluating field training program, joint efforts in forming a committee for setting criteria for HIC&N students' enrolment, and joint efforts in exchange of technological Information.

In respect to field training program, the findings of the research showed that approximately 55%-70% of the selected heads of departments at the Ministry of Communication "agree" that students who attended field training program lack essential skills in English basic terms, safety protocol, technical terms, unfamiliar with types of machines, devices, and tools, and low motivation in participating in the learning process. The majority (approximately 75%) of the selected the HIC&N graduates who are already working at the Ministry of Communications confirmed that the distribution of students for field training program is conducted randomly based on the readiness of the recipient's sector rather than students' area of specialty.

An attempt has been made to evaluate the standard of the HIC&N graduates who are already working at the Ministry of Communications six years ago until now. The research findings revealed, without doubt, that the majority (approximately 70%-95%) of those who graduates from the HIC&N lack significant skills related to their area of specialty. As expected, approximately 95% of the selected graduates lack English language skills, and 75% of the total unable to use Microsoft programs in an acceptable manner. Safety and health procedures and rules are essential since graduates would work in a hazardous working environment and the probability of accidents occurrence is very high and could be an expected. The HIC&N must ensure students are well aware of safety and health procedures and rules and must practice applying a high standard of safety and health precautions, since approximately 75% of the total ignore safety and health procedures and thus not using safety apparatus. It was also noted that 85% of the total unable to identify and deal with technical solving problems, approximately 80% of the total show unacceptable knowledge and skills in reading or understanding electrical or technical drawings, and approximately 70% of the total are not familiar with electrical devices components. It is inevitable that graduates from the HIC&N would work in power stations and the need to enhance their knowledge and skills in the various aspects on the operations and possible hazardous involved must be considered as one of the HIC&N priorities. However, approximately 70% of the total selected graduates are not familiar with the power station sections. When asked to evaluate the ability of graduates in interpreting electrical circuit networks, approximately 65% of the total were unable to describe in details the electrical circuit networks. In fact, approximately 55% of the total lack essential technical terms related to their area of specialty, and approximately 95% of the total completely unaware of what fiber optic components and contribution to the advancement of communications and information flow and

exchange. In addition, approximately 65% of the total seems unaware of types of electrical distribution frames, and cannot differentiate between main distribution frame, MDF, and intermediate distribution frame, IDF. The lack of knowledge and skills regarding the meaning and function of main distribution frame, MDF, room is also notable by selected heads of departments at the Ministry of communications. Despite the importance of jumper wires (use with breadboards and other prototyping apparatus to easily replace a circuit when required), approximately 75% of the graduates are incapable to understand how much current a jumper wire handles nor having an idea about how much power a breadboard can handle.

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directions for faster use for telecommunications services such as internet, television and telephones. The research findings revealed without doubt that approximately 80% of the total graduates do not have sufficient information about fiber optic, usage, whether is safer than WIFI, has a negative effect on health, usage purposes, disadvantages that are resulting from the use of fiber optic, types of fiber optic cables, type of light used for fiber optic, methods of fiber optic welding (e.g., termination or connectorization) and how can be compared to 5G. A telephone terminal is a device that ends a telecommunications link that receive and send signals for networks usage (e.g., computers, laptops, fax machines). Not surprisingly, approximately, 70% of the total graduates are lacking a notable knowledge and skills in performing telephone terminals boards nor in identifying types of telephone terminal boards (e.g., christmas tress terminal block, push punch block, high end surge suppressor, communications patch panel terminal block). Digital Circuit Boards is considered as an alternative to the circuit theory approach, stress on energy flow rather than just signal interconnection to explain logic circuit behavior. (Ralph, 2012) There are different type of digital circuit boards and approximately 65% of the total graduates are unaware of the types, importance, and function of Digital Circuit Boards. The issue of electrical safety and health is highly emphasis in related literature. (Gov.UK, 2020, Kevin, 2020, Pelsue, 2021) There are different types of electrical faults which graduates must be aware and can handle in a safe manner (e.g., open circuit faults, short circuit faults, fuse, circuit breakers, symmetrical and unsymmetrical faults). (Electronics Hub, 2015) The selected heads of departments confirm that approximately 85% of the total graduates seem lacking a significant knowledge and skills in allocating and handling electrical faults. It is important to understand the operation of an electrical circuit in order to identify the devices on the control panels and to identify the commands and the power that are considered the main components of the operation circuit. The need to understand the commands buttons and its functions is crucial to operate the electrical devices and to avoid any unexpected electrical faults that might cause loss of lives. Regrettably, approximately 75% of the total graduates are not competent to absorb the concept of electrical commands, types of commands, functions, interaction between commands and various electrical communication devices, and methods of layout on the control panels. When heads of departments questioned to measure the level of graduate's knowledge and skill in mechanical generators that are applied at the Ministry of Communications, heads of departments indicated that approximately 45% of the total graduate's encounter difficulties in dealing with mechanical generators. When graduates asked to identify the types of mechanical generators, only approximately 34% of the total provided a correct answer (alternative and direct current). It was also revealed that approximately 65% of the total who are aware that a generator converts mechanical energy into electrical energy. The selected graduates were lacking knowledge on the life duration of a generator, the different sizes of generators, the forces that are require to operate a generator, the scale of generator, and the duration that a generator can continually be running. Due to the high temperature in the summer that reaches 50 centigrade in the shade, graduates (approximately 50% of the total) oppose the idea of working outdoor and left the completion of job to contractor foreign employees and thus depending (approximately 75% of the total) on contractor skills in conducting a certain task that graduates are supposed to complete by themselves. However, due to the existence of a contract agreement, graduates were reluctant or missing the opportunity to acquire specific knowledge and skills that are essential to their future career. The selected heads of departments have noted the lack of graduate's interpersonal skills (approximately 85% of the total) such as: communication skills, solving problem skills, coping with work stress, self-development, and creativity. In respect to customer care unit; an attempt has been made to measure the perception of the selected heads of department to the quality of services provided

to clients. No objections have been noted on the quality of services provided from the customer care unit, however, selected heads of departments express their frustration from the lack of graduate's skills (approximately 65% of the total) in identifying the precise technical problem encounter and the ability of graduates in solving the existing technical problem (approximately 65%) of the total graduates.

The overall research findings confirmed, without any doubt that, the absent of concert evidence of a significant and effective participation with the recipients of HIC&N graduates (the Ministry of Communications). The aim of the country is to reduce dependence on expatriates. However, this objective seems be out of reach, for the time being, since the HIC&N is not seriously considering forging a strong and a fruitful collaboration with the Ministry of Communications in various essential academic and practical activities. The clear lack of graduate's knowledge, skills, and attitudes is highly notable in this research. The management of the HIC&N must exert efforts to enhance the quality of its graduates and set a strict rules and requirements before accepting those who are willing to service at the Ministry of Communications. Unless the Higher Institute of Communications and Navigation thoroughly realized the importance of forging a link with the Ministry of Communications, Kuwait would continue, without doubt, relying on expatriates for years ahead.

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