

2015 Employer Needs Study



THINK TANK
MANAGEMENT CONSULTING

KUWAIT'S INDUSTRIAL SECTOR

Employer Needs survey 2015

THINK TANK MANAGEMENT CONSULTING | FAHAD ALSALEM ST., KUWAIT BUILDING, 3RD FLOOR, OFFICE A, QIBLAH

Table of Contents

Acknowledgements	2
Introduction.....	3
The study project.....	3
Study Vision	4
Study Mission.....	4
Study Objectives	4
Study Beneficiaries	5
Survey Methodology & Implementation.....	5
Survey Findings	7
Skill Shortage and Its Impact on Business	7
Talent Acquisition, Retention and Training.....	11
Collaboration between Kuwaiti industrial sector and educational system.....	19
Government Involvement.....	21
Conclusions and Recommendations.....	21
Competency Framework for Related Skills	23
Appendices: Survey Questions and Responses	25
Part 1: Skill Shortage and Business Impact (questions 1-4).....	25
Part 2: Talent Recruitment, Retention & Training (questions 5-13)	30
Part 3: Collaborations with the Educational System (questions 14-16)	40

Acknowledgements

The author of this report wishes to acknowledge the following individuals and organizations for their appreciated assistance and contribution to the design and implementation of the employer needs survey:

1- Kuwait Industries Union

- Mrs. Huda Al-Bakshi, general manager
- Mrs. Hasnaa Saab
- Mr. Abdulrazzaq Al-Fadhel
- Ms. Lulwa Al-Ajeel

2- Kuwait Foundation for Advancement of Science

- Mr. Mohammad Al-Salman
- Mr. Faisal Al-Matrouk



Introduction

As economies shift around the world, the need arises to develop sustainable industries which can contribute to the socio-economic development of the nation. Human capital development is a vital factor in the sustainability of such industries; hence the reason countries are targeting the development of their national workforce to face the changes of a demanding global economy. The literature on workforce development often sites the phrase “skills gap” to reflect the struggle some employers have finding qualified workers. While many generally take this “gap” as a given, the causes and the degree to which employers have hiring difficulties are more complex. Various reasons are given as root causes of this problem; the lack of skills (hard/soft) of the workforce, educational qualifications, lack of appropriate work experience, and what the author considers the most important reason of all, the misalignment between industry needs and workforce supply in the community. Other sources highlight more general employability issues such as work ethics and dependability. With regards to the industrial sector of Kuwait, which is the focus of this study, the above issues were sighted as well as a deep struggle to attracting national workers into the sector due to the negative perceptions which are widely spread regarding difficult working conditions, low pay/benefits and lack of social status. The industrial sector matters in Kuwait. It plays an important role in the country's economic development as it supplies the national economy with various goods and services.

Relatively little research has been done to address the skill gap issue within the national workforce in Kuwait, and specifically within the industrial sector. Therefore, this study was conducted to address the abovementioned issues and deliver a set of recommendations which could be utilized as a stepping stone for general reform within the sector.

The study project

The study was developed into a three-phase project with one month per phase. The first phase included activities such as the preparation and design of the research strategy with timelines and key deliverables, the development of key research questions to guide the research process and research instrument design, and finally the selection of the representative sample who will utilize the survey. The second phase consisted of primarily circulating the survey and collecting the data. The survey was conducted via *Survey Monkey*, an online tool used to facilitate dissemination and collection of data through surveys. The tool collects the primary data and displays the response statistics, however, specific statistical analysis must be conducted by the researcher should the study requires. In this case, statistical analysis was conducted post data collection for display through this report. Phase three of the project comprised of data compilation and development of the final

report. The final report includes the survey results, including the main skill demands and gaps, as well as the final study recommendations and directions for future research within this specific area and industry.

Figure (1)- Project Timeline and Deliverables

Phase	A. Research Strategy & Design	B. Data Collection & Analysis	C. Data
Activities	Preparation of research strategy document, including timelines and deliverables	Collection of primary industry data (interviews, questionnaires, Etc.)	Data compilation and final data testing for accuracy
	Design of key research questions and instruments	Conduct primary analysis	Submission of final study report
	Selection of representative sample		Define gaps in workforce skills required
			Optional Phase 2: Address skill gaps by implementing an industrial workforce development program

Study Vision

To provide data on the skill gap which exists in the Kuwaiti industrial sector in order for decision makers to use it to build an educated, confident and resilient national industrial workforce who contributes to the growth of the sector, society and the country”

Study Mission

By utilizing expert talent, state-of-the-art technology and unique and tested methodologies, TTMC will be able to conduct a targeted industrial sector study, complemented by a workforce development program which will aid Kuwait Industries Union in becoming a one stop shop that provides services to Kuwaiti industrial organizations to enhance their sustainability and to ultimately contribute to Kuwait’s social and economic welfare”

Study Objectives

- Define current and potential skill gaps which exist in Kuwait's industrial sector
- Identify key capabilities and skills required by employers to develop Kuwait's industrial sector
 - *(Gaps found in this objective will be addressed through the industrial workforce development training program)*

Study Beneficiaries

Program Beneficiaries- Dual Customers

TTMC acknowledges that information regarding the industrial sector in Kuwait is scarce, thus the need for such a study. The inclusion of public, private and civil society organizations as potential beneficiaries will add to the dimensions of the program and bridge any gaps in knowledge and practice. The communication of the data found by conducting this study to the relevant beneficiaries will ensure alignment in objectives as well as effective and efficient implementation of the recommendations that follow. The beneficiaries of this program include but not limited to Kuwait Industries Union as the main client and owner of this data, Kuwaiti Industrial Organizations & potentially their employees, Kuwaiti Private Sector, Job Seekers, Job Providers, Researchers, government and education institutions.

Survey Methodology & Implementation

The 2015 Employer Needs Study was conducted by Think Tank Management Consulting Company (TTMC) in collaboration with an internal team comprised of staff from Kuwait Industries Union (KIU), and sponsored by Kuwait Foundation for Advancement of Science (KFAS). The study targeted the skill gaps which exist in the industrial sector in Kuwait today, and the challenges employers are facing in finding qualified national workers who can meet these demands. The data for this study was collected via a survey which was distributed to Kuwait Industries Union members, as well as non-member industrial organizations.

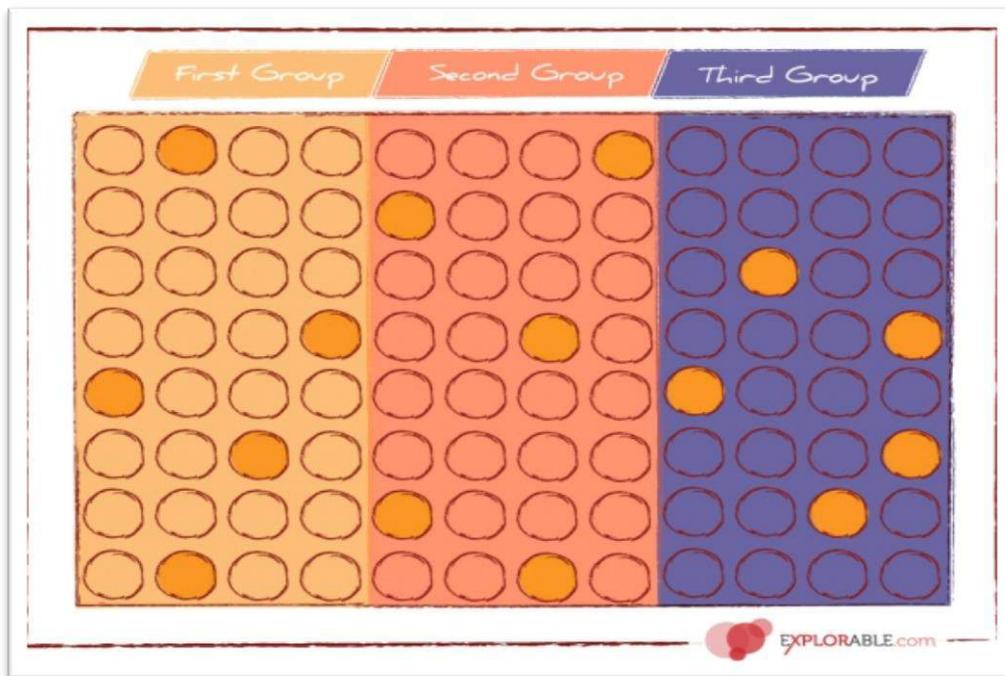
Think Tank Management Consulting (TTMC) designed the survey in consultation with Kuwait Industries Union management and its internal team. The overall goal of the survey was to identify the needs of employers in the Kuwaiti industrial sector, comprised of the union's members, with a particular emphasis on hiring difficulties, recruitment and retention practices, training and development and relationship with government and educational institutions within Kuwait.

In selecting the study sample, the project team initially faced several challenges:

- 1- A database of industrial businesses in Kuwait does not exist in public domains, a member-list, however, exists at Kuwait Industries Union domain
- 2- The data which exists (via government institutions) is not comprehensive and could be labeled as generic. The true nature of the business cannot be discerned from the existing information
- 3- The term Industrial is defined loosely when searched through government databases (including the types of businesses which fall under it)
- 4- The number of industrial businesses operating in Kuwait is limited
- 5- There exists a number of dummy facilities with no staff, organization structure and operations
- 6- No previous studies exist in the public domain to be used as a reference

In response to these challenges, the project team stratified the sample. Stratified sampling is a probability sampling technique wherein the researcher divides the entire population into different subgroups or strata, then randomly selects the final subjects proportionally from the different strata (1).

Figure (2) - Stratified Sampling



The population for this study was 287 industrial organizations currently members of Kuwait Industries Union (KIU). These organizations were identified as having approximately between 2 and 399 employees. Due to the disparities found in the onset of this study, this population was stratified based on the following key variables: organization size (10+ employees), membership status with Kuwait Industries Union (members/not a member), and type of operations (workshop/facility/factory), and a sample was drawn to be representative of these aspects.

There were several reasons for stratifying by these variables. Companies with different organizational sizes may have different needs; for example, companies with fewer than 50 may have limited human resources departments or capabilities and may have other considerations than larger companies. The companies' membership status may also impact the project team's ability to obtaining accurate data about the company and its needs. And finally, the type of operation was chosen as a variable to address the concern of having various dummy organizations which are listed as industrial businesses, but do not meet the standards of a fully functional one.

The survey was designed to address four areas of concern with regards to the industrial sector of Kuwait. These areas were prominent when compared to other studies conducted in the region, North America and Europe during the past five years:

- 1- The extent of the skills shortage and its impact on business operations
- 2- Talent recruitment, retention and training practices
- 3- Collaboration between the industry and the educational system in Kuwait, and
- 4- Government involvement and impact on industry progress

The survey was implemented in July-August 2015 via an online survey collection tool (Survey Monkey). KIU's internal team and management complemented the sent surveys with personal phone calls to the potential respondents to ensure receipt and response. The team's assistance was vital in increasing the number of respondents to the survey considering the survey was implemented during the holy month of Ramadan and vacation season. The final achieved samples with sufficient data were 140 for the general sample of all organizations (287), and the response rate compared to the achieved sample was 59.2%, and compared to the general sample was 28.9%.

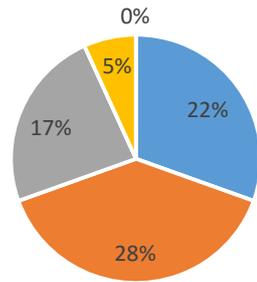
Although the survey is representative of a number of industrial businesses in Kuwait, there are some limitations to what can be concluded from the data due to the scope of the survey and the number of responses. For example, it is difficult to make statements addressing several variables at once, and generalized conclusions need to be addressed with care. Wage and education requirements, as well as detailed information on specific vacancies or numbers of difficult-to-fill positions are not available. Finally, it is important to remember this survey only captured employers' experiences, and does not include the perspective of the jobseekers necessary to provide a complete picture of the labor market. However, this survey can be treated as a foundation for a more detailed study of the Kuwaiti industrial sector of Kuwait in the future.

Survey Findings

Skill Shortage and Its Impact on Business

The first part of the survey sources data about job vacancies, hiring difficulties and skill shortages within the companies operating as part of the industrial sector in Kuwait. It attempts to highlight the impact these factors may or may not have on their business operations. 28% of employers within the Kuwaiti industrial sector responded by highlighting that the percentage of vacancies that exist currently within their companies are due to lack of qualified potential employees.

ما هي نسبة الوظائف الشاغرة حالياً بسبب عدم توافر العمالة ذات الكفاءة المطلوبة؟
 What % of total positions are currently unfilled due to lack of qualified applicants?

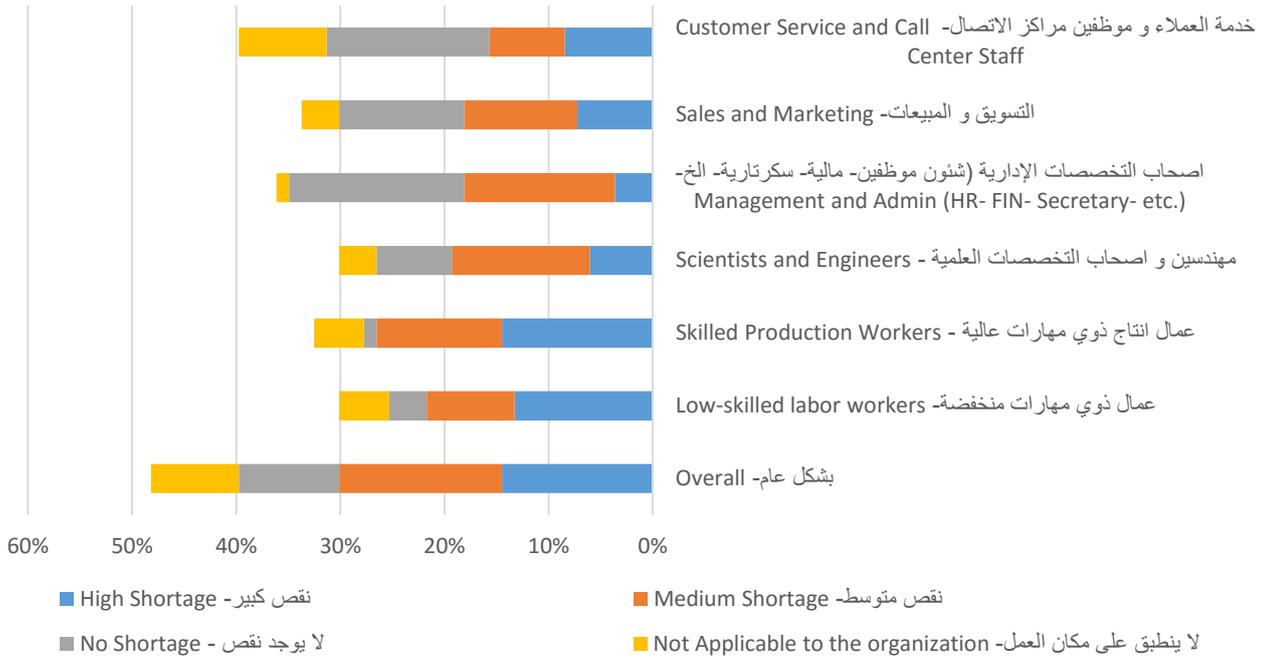


■ None - لا يوجد ■ Less than 10% - أقل من 10% ■ 10%-50%
 ■ More than 50% - أكثر من 50% ■ Do Not Know - لا أعلم

As this survey is focusing on national workforce within the industrial sector, the second question asks employers to highlight the workgroups where these shortages lie, specifically for Kuwaiti employee. The work groups were divided into: low skilled labor, skilled production workers, scientists and engineers, management and administration, marketing and sales, customer service and finally in general. Employers stated that the highest shortage of Kuwaiti employees is in the skilled labor group with 14% of respondents selecting it, followed by 13% selecting low skilled labor as a second high shortage area for Kuwaiti employees. 17% of respondents indicated that management and administration has no shortage of Kuwaiti employees. This is consistent with the common job market trends in Kuwait as well as the educational outcomes of the local and international educational system. According to the Kuwait Central Statistical Bureau, the total number of graduate for post-secondary education for the year 2012/2013 is 15552 graduates. Graduate of applies education were 24%, graduates of training centers were 25%, Kuwait university's graduates comprised the highest percentage of 28% for this year, and private universities held only 7% of the year's graduates. With regards to industrial training, the percentages drop to only 3% of total graduates for the year with 0% females. Special training held 11% of the graduates and the percentages drop significantly to .6% for vocational training with again 0% females. These percentages demonstrate how a shift in focus and attitude need to be given to the industrial and vocational training in Kuwait in order to supplement the industry with capable and diverse workforce.

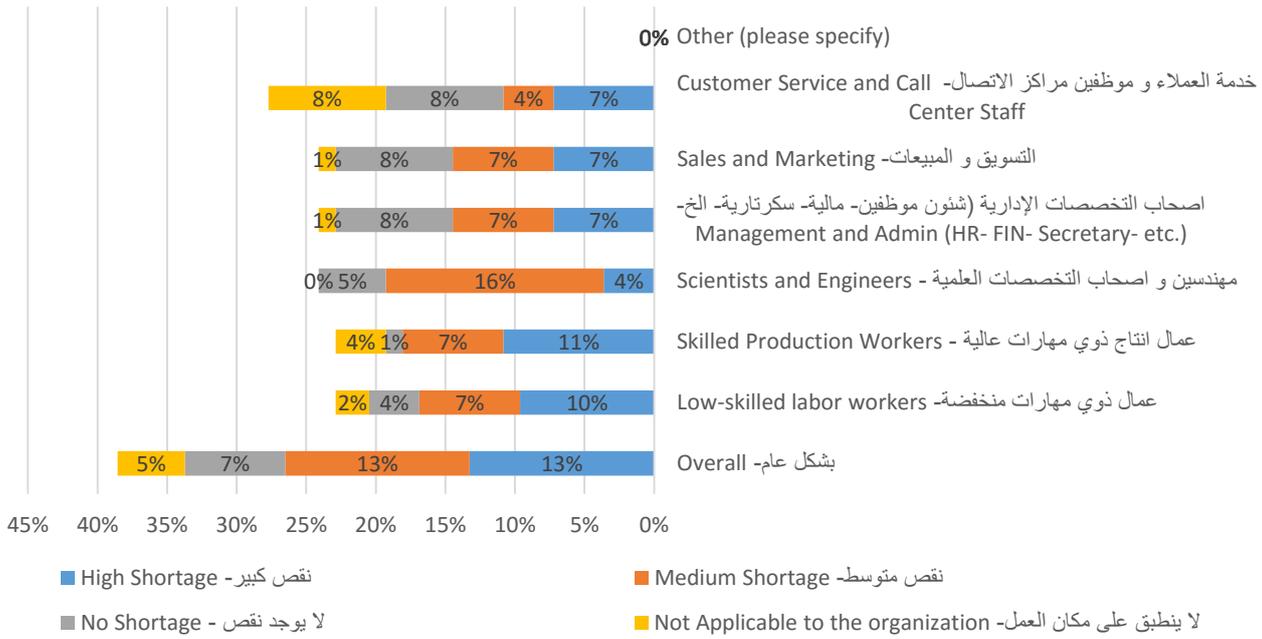
Employees are looking for a national workforce capable of filling those vacancies and is being faced with difficulties in finding qualified job seekers. Cultural aspects are also a hindering factor since the general attitude towards these types of vacancies is primarily negative and is seen as low-status job.

يرجى تحديد مستوى نقص الكفاءة الكويتية ضمن مجموعات العمل التالية في مكان عملكم - Rate the current shortage of qualified Kuwaiti workers for the following work groups in your organization

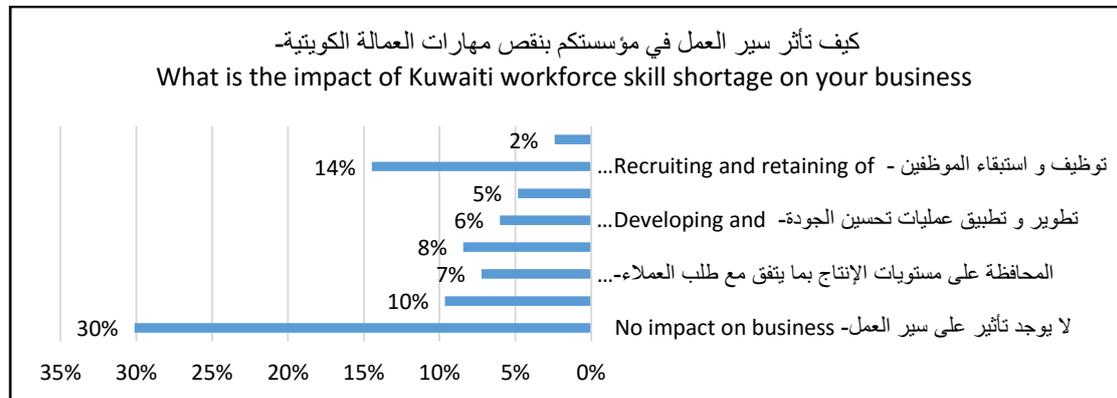


The third questions urges the respondents to think about the future of the industry in terms of potential future shortages and vacancies within the next three years. The answers provided for this question are consistent with the previous two in the sense that 13% of respondents are anticipating an overall high shortage for Kuwaiti employees, followed by 11% believing the highest shortage will fall within the skilled production labor group. 16% of respondents believe that a medium shortage will be within the scientists and engineers groups particular to the industrial sector. The respondents indicated that no shortage lies within the management and administration, marketing and sales and customer service groups with 8% for each.

قيم مستويات النقص في العمالة الكويتية للسنوات 3 القادمة في مجموعات العمل التالية-
Rate the anticipated shortage of qualified Kuwaiti workers in 3 years for the following work groups



The following question addressed the impact of the previously discussed shortages and vacancies on the business operations of the participants. The operations were divided into innovation and new product development, maintaining production levels consistent with customer demand, developing and implementing quality improvement processes, achieving productivity targets across the organization, recruiting and retaining and finally that there is no impact on business.



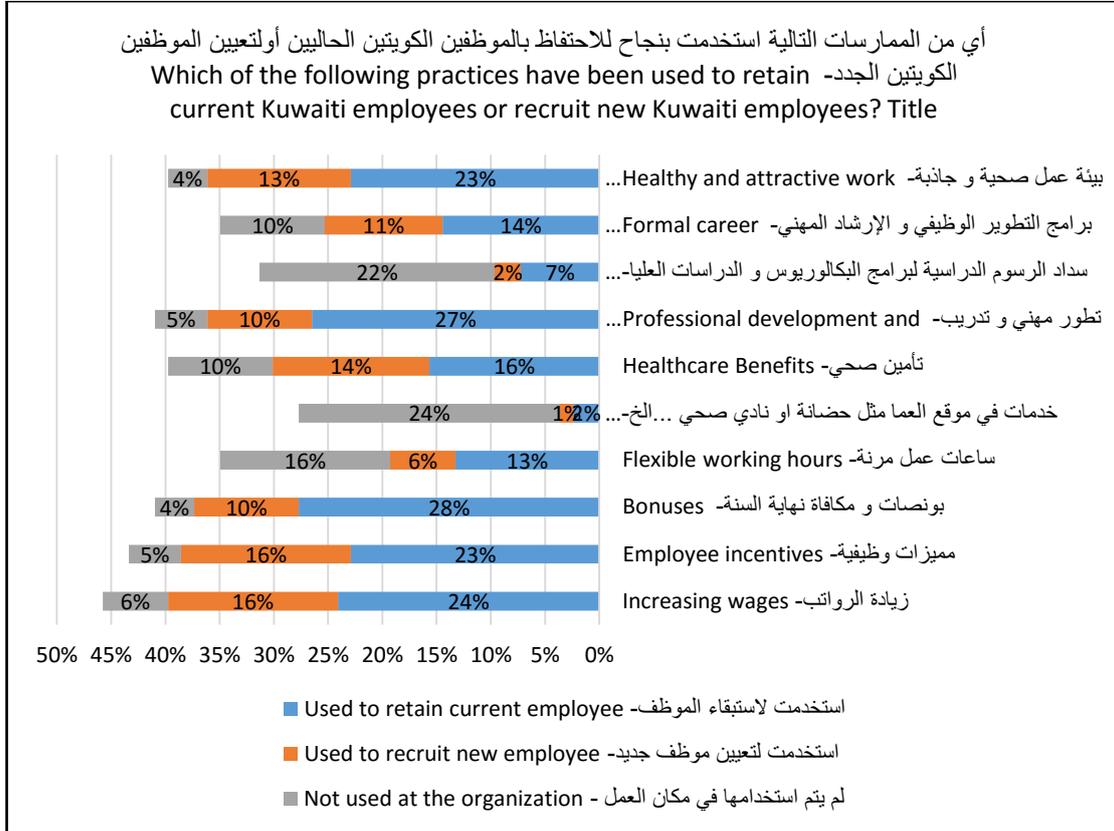
Although respondents have highlighted in earlier questions that they are experiencing hiring difficulties in specific groups for Kuwaiti employees, 30% of the companies indicated that this shortage has no bearing on their business operations. This may be due to the fact that employers are reverting to low-cost, expatriate labor to fill these gaps as opposed to national labor. This explanation is corroborated by the 14% of respondents who indicated facing issues in recruiting and retaining national labor.

Talent Acquisition, Retention and Training

The questions presented in this part attempt to highlight the practices companies use to acquire, retain and train their Kuwait employees. The questions discuss matters of hiring methods and mechanisms, retention practices and training and development programs as well as budgets.

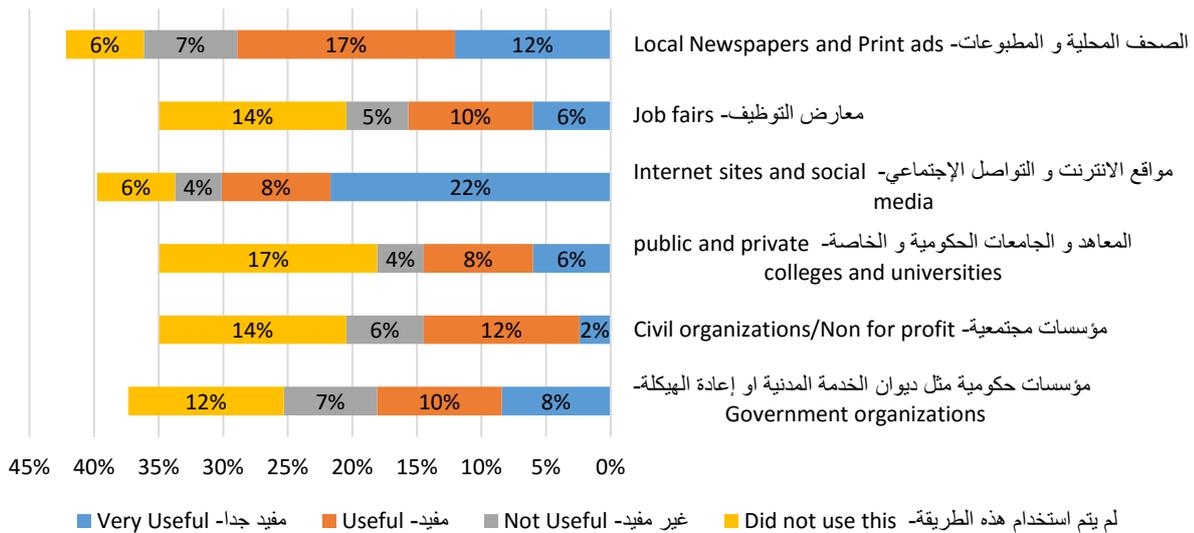
The following question pertains to general recruitment and retention practices within companies. The respondents were asked to select the practices they used in their respective organizations to either recruit or retain a Kuwaiti employee. The respondents also had the option to select “not used in the organization”. The selection of practices provided is consistent with the general practices used across many organization locally as well as internationally for recruitment and retention purposes. These practices include increasing wages, employee benefits, bonuses, flexible working hours, onsite services (daycare, gym, etc.), healthcare benefits, professional development and training, tuition reimbursement for undergraduate and graduate educational programs, formal career development and mentorship programs and a healthy and attractive work environment.

In terms of recruiting new employees, respondents chose the traditional practices of wage increase and employee incentives with 24% and 23 % respectively. Training and bonuses scored lower, with 10%, as recruitment practices. With regards to retention practices, companies indicated



In an attempt to explore the mechanisms by which employers source for jobs, the below question was posed and respondents were given the most general options companies use to advertise for a vacancy and collect job applications. The respondents were asked to rate the usefulness of each method should they have used it within their organizations. 22% of respondents indicated that internet sites and social media were the most effective methods for sourcing and collecting jobseekers information in Kuwait, compared to only 4% who believed that it was not useful. When asked about utilization of public and private universities to collect jobseekers data, 17% indicated that they have not used this method. This highlights the diminished collaboration between industrial businesses in Kuwait and the educational system. Only 10% of respondents found government organizations to be useful for sourcing and collecting job applications, where 12% of them indicated never using that option.

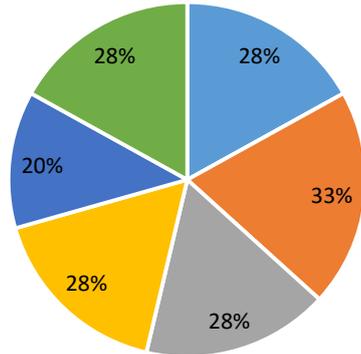
ماذا تستخدم المنشأة لطرح الوظائف الشاغرة و تجميع طلبات العمل و ما مدى فائدتها؟-
 organization use to publicize vacancies and collect job applications? And how useful is it?



The employers were asked to identify the most important factors that will contribute to their companies' success over the next three years. 33% of respondents indicated that a high performing workforce is the most important factor which will contribute greatly to their organizations' success over time. 28% was allocated to the following factors discerning equal importance, low cost production, product innovation and development, increased service levels and export to external markets. The least important factor as per the allocation of the respondents was having an integrated operations management function.

A high performing workforce is synonymous with innovation, quality and proper operations management; hence it is considered the umbrella under which all other factors will lie. Also the implications of having a high performing workforce in Kuwait will be seen in various aspects of the sector and the country. It will impact the social, economic and global trends of Kuwait, not to mention address many of the objectives of the national development plan which are concerned with diversification of industry, human capital growth and economic development.

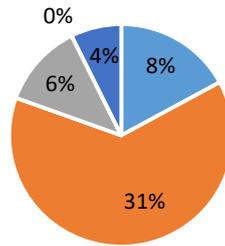
Which of the following أي من العوامل التالية ستكون أهم لنجاح عملك على مدى السنوات الثلاث المقبلة- factors will be most important for your business success over the next 3 years?



- Low cost production - انخفاض تكلفة الانتاج
- High-performance workforce - قوة عاملة عالية الأداء
- Product innovation and development - ابتكار و تطوير المنتجات
- Increased service levels - رفع مستوى الخدمات المقدمة للعملاء
- Integrated operations management - إدارة عمليات متكاملة
- Export to external markets - تصدير منتجات محلية للأسواق العالمية

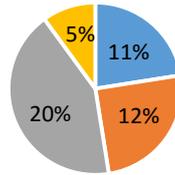
The survey attempts to recognize any patterns in terms of training and development by understanding how employers allocate resources specific to this area. The survey asked three questions which should highlight the percentage of the company's budget allocated to training activities, the percentage by which this budget has changed over the last three years and finally the percentage of employees who receive training during a fiscal year. 31% of respondents indicated that their organizations allocated less than 10% of its budget to training and development activities. This question also indicated that 8% of employers do not have an existing training budget during a fiscal year. These percentages showcase a very weak investment in training and human capital development activities compared to organizations in the region. This percentage does not reflect how employers can contribute to developing a high-performing workforce. The survey highlights that the training and development budget of 20% of the employers did not change over the last three years. Also, a significant 11% continue to indicate that there exists no budget for training over the last three years. The most important discovery of this part of the survey is the fact that less than 10% of employees receive training in a fiscal year according to 27% of employers in Kuwait. This percentage certainly does not contribute to the development of a high-performance national workforce.

ما هي النسبة المخصصة من الميزانية للتدريب و التطوير في مكان عملك؟-
What percentage of the total budget is allocated for training and development?



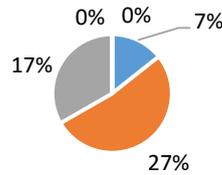
■ None - لا يوجد
■ Less than 10% - اقل من 10%
■ 10%-50%
■ More than 50% - أكثر من 50%
■ Do Not Know - لا أعلم

مقارنة بالسنوات الـ 3 السابقة, هل هناك تغيير في ميزانية التدريب و التطوير؟-
Compared to 3 years ago, has the training budget changed?



■ No allocated budget - لا يوجد ميزانية
■ Increased - زيادة
■ No change - لا يوجد تغيير
■ Decreased - نقصان

ما هي نسبة الموظفين الذين يحصلون على تدريب خلال السنة المالية؟-
 employees receive training through the fiscal year?

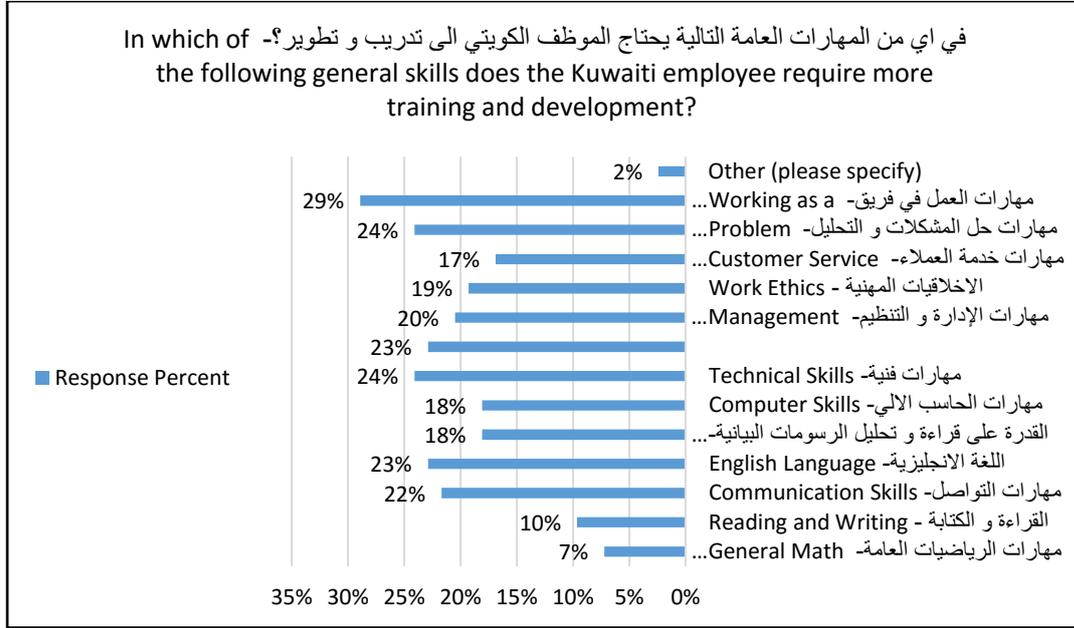


- لا يحصل الموظفون على اي تدريب- No employee training available
- أقل من 10% - Less than 10%
- 10%-50%
- أكثر من 50% - More than 50%
- لا أعلم- Do Not Know

This study aims to address the skill gaps currently present in the Kuwaiti national workforce as well the anticipated skill shortage over the next three years, a key question was raised to employers to assess as per their experience and expertise in which skills does the shortage lie. The question asked employers to identify the general skills areas where Kuwaiti national workforce requires further training and development. The employers identified five areas listed below according to priority:

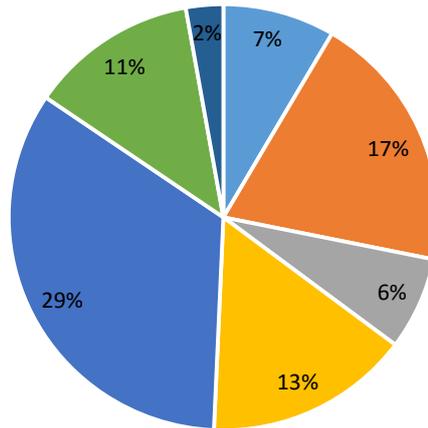
- 1- Working as a team- 29%
- 2- Problem-solving- 24%
- 3- Technical skills related to specific jobs in the industry- 24%
- 4- Innovation and creative thinking and,- 23%
- 5- Communication skills- 22%

In linking this information with existing information in the Kuwaiti industrial sector today, it is evident that the educational system (primary as well as higher education) do not address these issues in their processes. Most of the skills mentioned are relevant to creating a high performing Kuwaiti workforce who is able to utilize these skills in addressing the sector's organizational problems. However, conventional training in these areas will not address the gaps as a fully integrated and comprehensive workforce development plan which includes partners from public and private organizations.



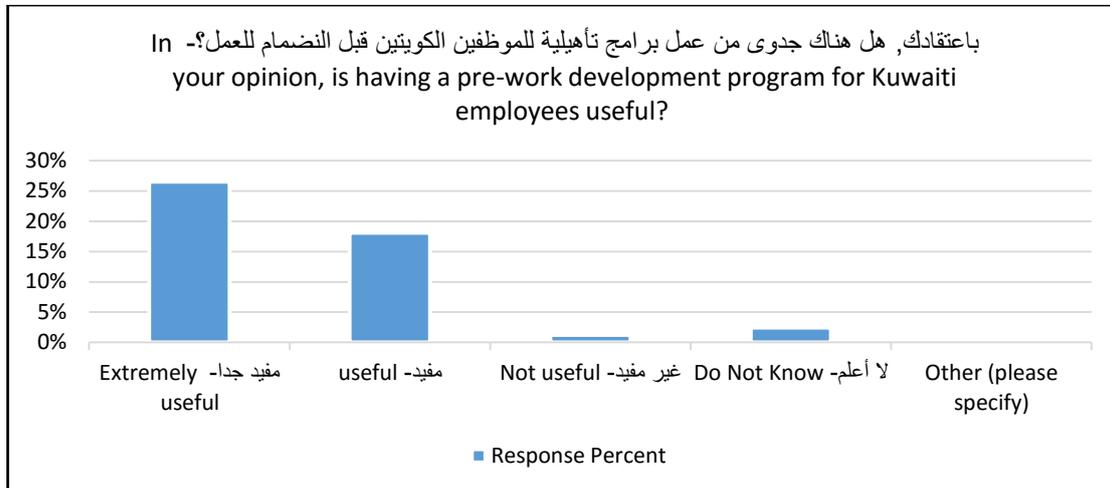
Kuwaiti employers in the industrial sector prefer to have consulting and training companies provide their training services as opposed to public and private educational institution, non for profit organizations and government programs. Consulting and training organizations proved to be a better fit in aligning client needs with their services. They are dynamic and possess a myriad of experts who are able to address the client's needs from many perspectives. The negatives of relying heavily on consulting companies is that due to their high client intake rate, some of their approaches and deliverables may not include the high customization required by organizations today. Also the high costs associated with consulting firms could pose a challenge to smaller organizations within the industrial sector.

من برأيك يقوم بتقديم أفضل خدمات التدريب و التطوير لمكان عملك؟-
 In your opinion, who provides the best training and development services to your organization?



- Public colleges and universities-المعاهد و الجامعات الحكومية
- Private institutes and private universities-المعاهد الأهلية و الجامعات الخاصة
- Non for profit specialized associations-جمعيات النفع العام التخصصية
- Specialized unions-الإتحادات المتخصصة
- Consulting and training companies-شركات الاستشارات و التدريب
- Government entities programs-برامج المؤسسات الحكومية
- Other (please specify)

Employers indicated that it would be extremely useful for Kuwaiti national workforce to enroll in pre-work development programs which will prepare them for the workplace. In aligning this question with others in the survey, employers expect private sector involvement in providing these programs as well as government sponsored programs. These programs can take many forms, however they could assist in preparing the workforce with the necessary skills addressed earlier.



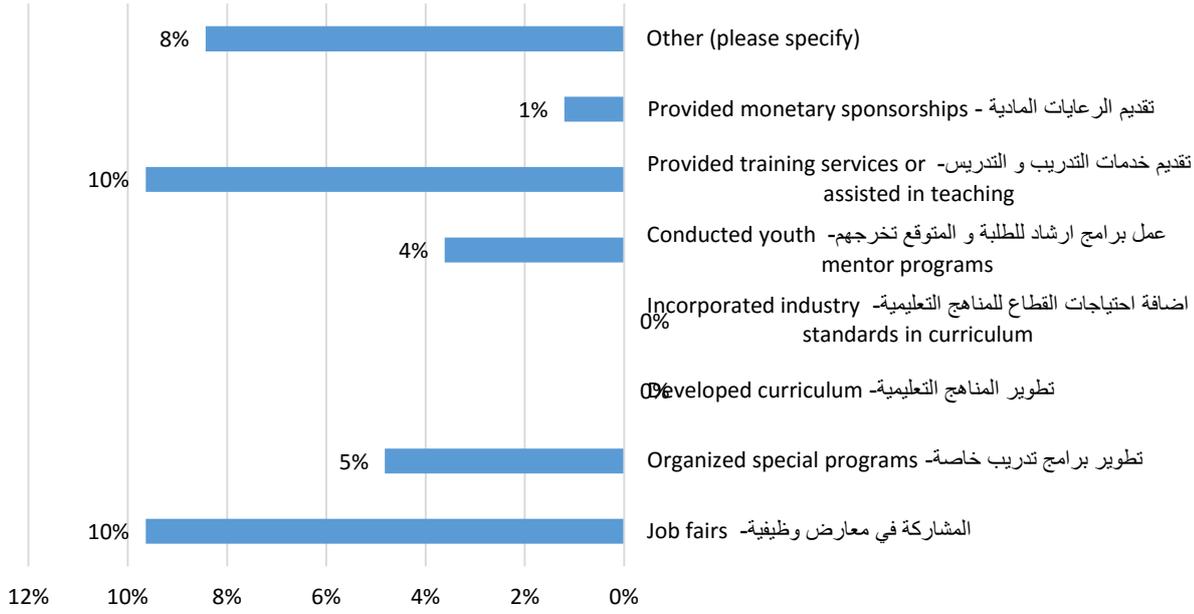
Collaboration between Kuwaiti industrial sector and educational system

In this part of the survey, the employers were asked to define the extent of their collaboration with the Kuwaiti educational system. Employers were presented with a list of commonly utilized mechanisms of collaboration and were asked to select the ways by which they have created a relationship with the educational system. The two most utilized collaboration methods were the participation of industrial employers in job fairs held at educational institutions, and by providing training services to students (practical training). The key response in this question is that 0% of respondents were involved in development of curriculum and incorporating industry standards in existing curriculum of educational institutions in Kuwait. This lack of alignment create the skill gap which exists today in the industry and in the Kuwait workforce. By addressing this misalignment, both educational institutions and industrial organizations can benefit and contribute to the building of a high performing Kuwait national workforce.

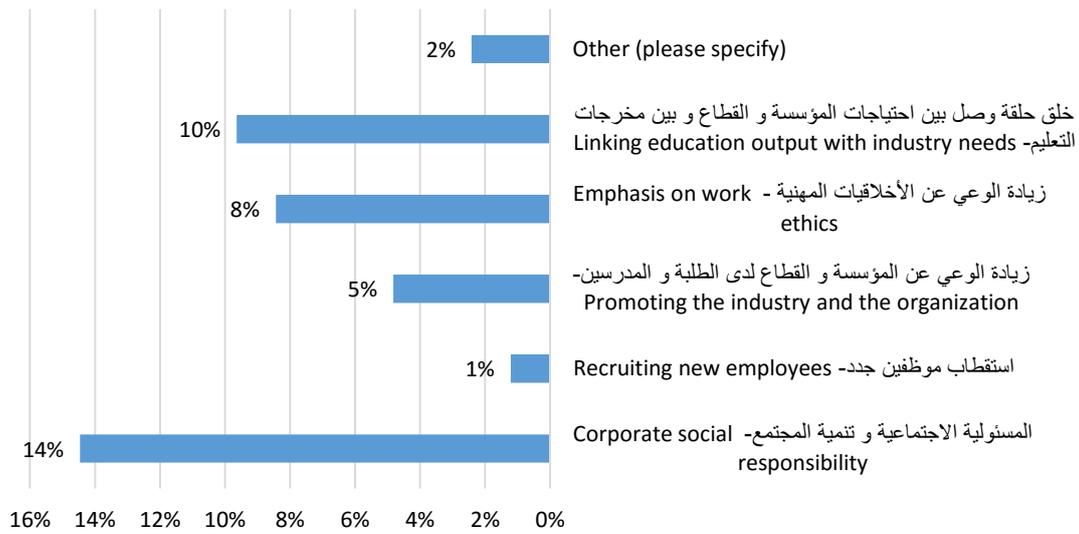
The second question seeks to identify the reasons behind any collaboration created by the industrial sector in Kuwait. The question prompted employers to define the reasons behind their collaboration with the Kuwaiti educational sector. The survey presented various reasons for why an organization would develop a collaboration mechanism with educational institutions. These reasons included corporate social responsibility, promotion of the industry and organization and linking educational output to industry needs. Of the reasons listed, employers sited corporate social responsibility to be the number one reason for why they peruse collaboration opportunities with the educational sector.

It is imperative to explore other methods of collaboration which are driven by more generalizable reasons.

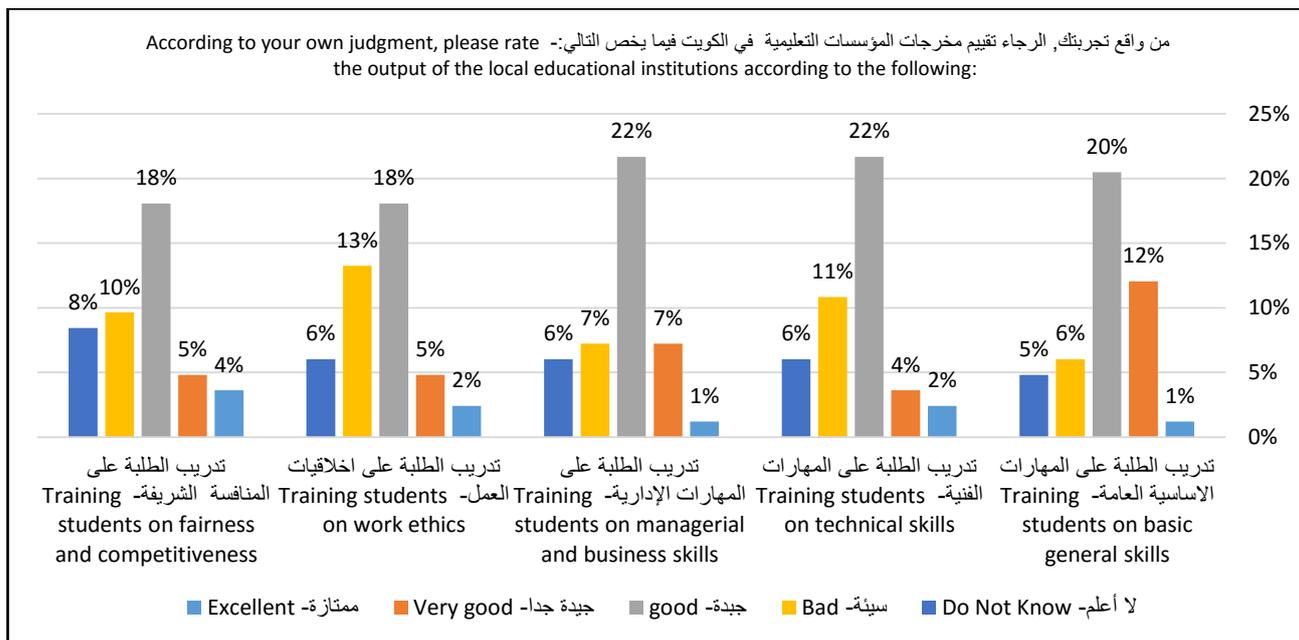
هل كان هناك تعاون بين مؤسستك و بين مؤسسات الدولة التعليمية بأي من الطرق التالية؟-
Has your organization collaborated with educational institutions in any of the following ways?



ما الأسباب التي تجعل من تعاون مؤسستكم و المؤسسات التعليمية خطوة هامة-
What makes the collaboration between your organization and educational institutions important?



When asked to evaluate the output of the educational system in Kuwait in relation to industrial sector needs, employers indicated that for the most part, the output is good when it pertains to technical and managerial skills (22% for each). The highest percentages were given in the “bad” category with regards to students’ work ethics, fairness and competitiveness. It is clear that the alignment between the educational system output and the skills needs of the Kuwaiti industrial sector does not exist in the proper form.



Government Involvement

See attached response sheets in appendices

Conclusions and Recommendations

The study recommended that the industrial sector of Kuwait collaborate with public sector organizations, educational institutions, and industry associations to help narrow the talent shortage in the workforce. As highlighted earlier in this report, the study revealed a shortage in the following skills among Kuwaiti workers:

- 1- Working as a team
- 2- Problem-solving
- 3- Technical skills related to specific jobs in the industry
- 4- Innovation and creative thinking and,
- 5- Communication skills

It is particularly important because workers in occupations facing the most severe shortages are those needing the most training. These collaborations can leverage limited resources to tailor workforce training to match business needs. Programs which integrates basic skills education and career-specific training in high-demand fields that aligns with employers' workforce needs should be developed to ensure workers acquire educational accreditation and workforce skills they know will be needed by businesses.

Furthermore, the study recommends that employers become creative with new approaches to human resource management in terms of recruiting and retaining national labor, and promoting employee engagement. There should be a higher value placed on building and sustaining an effective national workforce, which will result in better business outcomes for Kuwaiti industrial businesses and enhanced economic status for the industrial sector in general.

Other opportunities for improvement include:

- Employers should evaluate their current levels of investment in educating and training and compare them with the best practice (at least 3 percent of payroll).
- Employers should investigate the benefits of increased business-education collaborations.
- Employers and advocacy groups, such as Kuwait Industries Union, should consider policy changes for a better business environment within the Kuwaiti industrial sector.
- Educational and training institutions should study demand for skill and work-readiness certification, particularly on a regional basis (GCC comparisons)
- Develop and implement industrial development programs targeting the skills shortage for Kuwaiti job seekers and utilizing the relevant competency frameworks as foundations.
- Higher visibility should be allocated to the advancements and achievements of the Kuwaiti industrial sector through national media
- A cultural awareness should be raised regarding the attitude of the Kuwaiti workforce towards industrial work and the industrial sector. This could be addressed through the educational system or the supporting non for profit groups.

Overall, these survey results present both a significant challenge and a substantial opportunity for the Kuwaiti industrial sector in general and the employer and job seeker in particular. Making a difference will require local governments, the educational system and other service providers to align and prioritize services for supporting employers in the industrial sector. There are also opportunities for employers to proactively build an effective and efficient national workforce to sustain their business and ultimately, the Kuwaiti industrial sector.

Competency Framework for Related Skills

"A competency is more than just knowledge and skills. It involves the ability to meet complex demands, by drawing on and mobilizing psychosocial resources (including skills and attitudes) in a particular context. For example, the ability to communicate effectively is a competency that may draw on an individual's knowledge of language, practical IT skills and attitudes towards those with whom he or she is communicating" (OECD, 2005, 4). As research was conducted across multiple sources, the author identified a five-competency framework that built on a three-part set of foundation skills and personal qualities for success in the modern workplace. Individuals in the workplace should be able to productively use: 1) resources, 2) interpersonal skills, 3) information, 4) systems, and 5) technology. These competencies require an underpinning of: a) the basic skills of reading, writing, arithmetic, speaking, and listening; b) the thinking skills of solving problems and reasoning (among others); and c) the personal qualities of individual responsibility, sociability, self-management, self-esteem, and integrity (SCAN, 1991). This competency framework lends itself well to the results of this study. As the results indicated, the skill shortage in Kuwaiti worker lie within 1) working as a team 2) problem-solving 3) Technical skills related to specific jobs within the industry 4) innovation and creative thinking and 5) communication skills. Kuwaiti workers are required to fulfill these gaps in knowledge and attitude to be effective members of the industrial workforce of the country. When the results of the skill shortage questions were compared with the global data regarding required skills for an effective workforce, the five skills addressed in this study appeared on the general list as well.

Figure (3) - Competency comparisons

Global Competencies	Study Competencies
<i>Creativity/innovation</i>	Creative & innovative thinking
<i>Critical thinking</i>	
<i>Information literacy</i>	
<i>Problem solving</i>	Problem solving
<i>Decision making</i>	
<i>Flexibility/adaptability; learning to learn</i>	
<i>Research and inquiry</i>	
<i>Communication</i>	Communication skills
<i>Initiative and self-direction</i>	
<i>Productivity</i>	
<i>Leadership and responsibility</i>	
<i>Collaboration</i>	Working as a team
<i>ICT operations and concepts</i>	
<i>Digital citizenship</i>	

These competencies are grouped into three areas: analytical thinking, interpersonal skills and capacity for change.

Problem solving and **critical thinking** fall under the analytical skills group. Problem solving involves goal-directed thinking and action in situations for which no routine solution procedure is available. The problem solver has a more or less well-defined goal, but does not immediately know-how to reach it. The incongruence of goals and admissible operators constitutes a problem. The understanding of the problem situation and its step-by-step transformation, based on planning and reasoning, constitute the process of problem solving (Murray, Owen & McGaw, 2005). Employers are placing higher emphasis on their employees' ability to critically think about a situation or information and apply that thinking to solve organizational problems. Employers in the Kuwaiti industrial sector indicated their need for a national workforce with the ability to think critically, analyze data and solve organizational problems using these analytical skills.

The second group refers to the interpersonal skills a worker is required to have to be effective in the workplace. **Communication** skills are seen as a direly important skill in the growing business world. The importance of communication was found across literature reviewed for the purposes of this study, and was also echoed by the responses of employers in Kuwait's industrial sector. Communication concerns the effective and efficient use of spoken and written language skills, computation and other mathematical skills during multiple situations, regardless of level of education or type of work (DeSeCo, 2005). In order to create an effective Kuwaiti workforce, a focus should be place on understanding the communication gaps which exit amongst them and developing programs to complement these gaps.

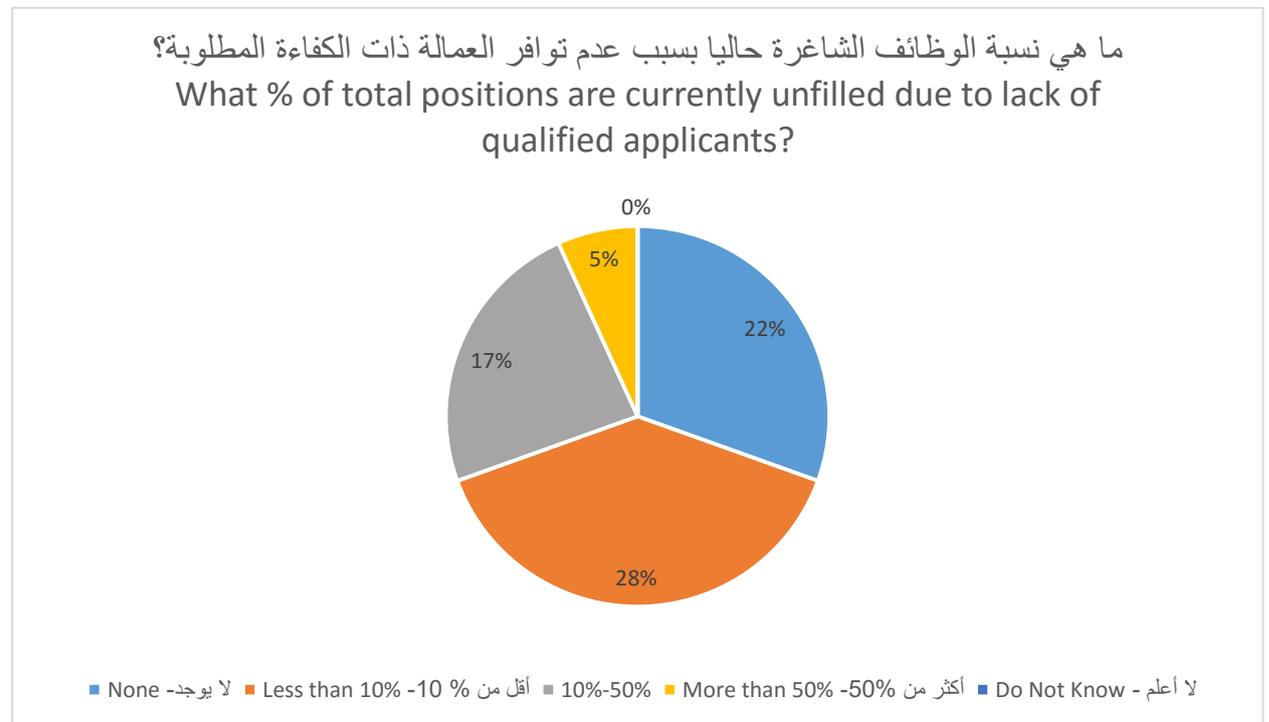
Collaboration also falls within the interpersonal skills group of competencies. Kuwaiti national workforce need to be able to engage collaboratively and in teams with others in a work setting, regardless of the differences in backgrounds. It is important that they are able to interact as a heterogeneous group with in their environment. Respondents to this survey indicated that they face many issues with integrating Kuwaiti workers within their existing teams. They highlighted the fact that Kuwaiti workers are not prepared t compromise on their preconceived notions and attitudes, and it takes them longer than other staff to behave as part of a team or unit. Most organizations today require the use of teams to complete tasks and projects, and unless the Kuwaiti workers address this gap, they will not be as effective and productive as the industry requires.

The third grouping of competencies deals with an individual's capacity for change. The ability to adapt during periods of rapid technological and organizational change is imperative to the success in the workplace. Employers are placing great value on individuals who are able to adapt and to innovate in times of technological and organizational restructuring. For the Kuwaiti industrial workforce, employers are now expecting them to use their technical and generic knowledge and skills to contribute efficiently and continuously to the production of new knowledge within the workplace. Kuwaiti workers are now required to apply innovative thinking to organizational activities to create and develop products, meet changing customer demands and maintain market share.

Appendices: Survey Questions and Responses

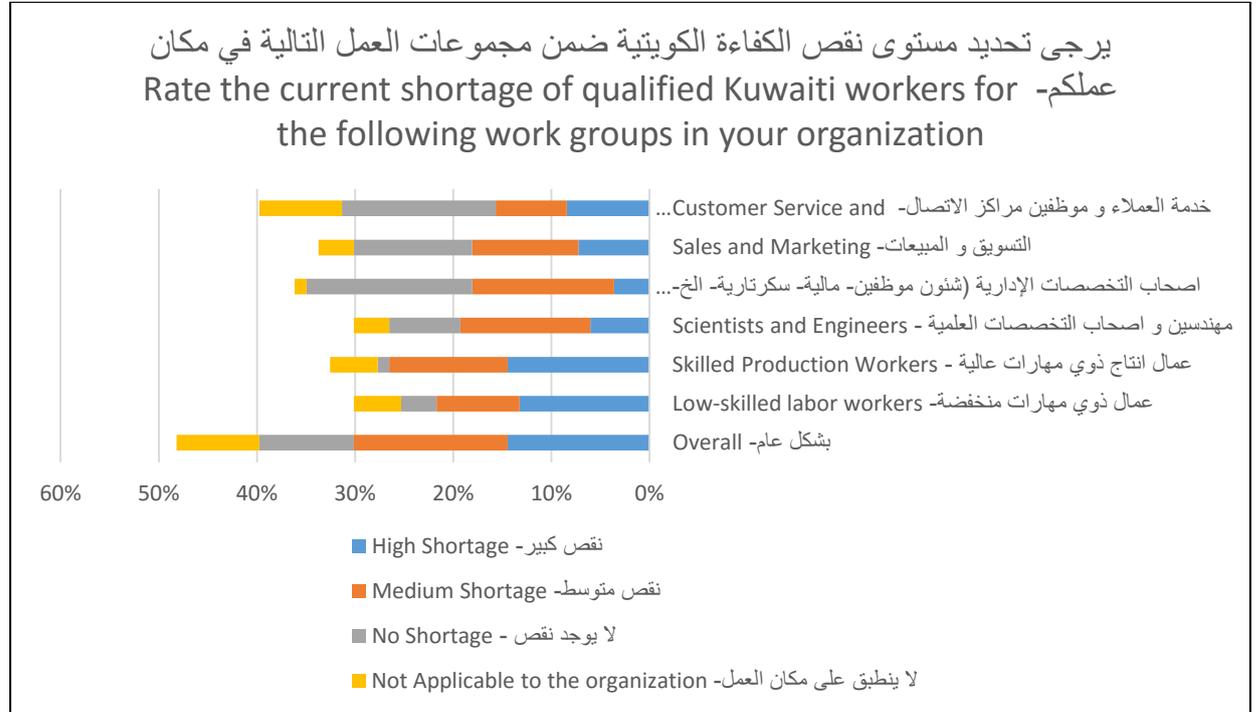
Part 1: Skill Shortage and Business Impact (questions 1-4)

Question 1:



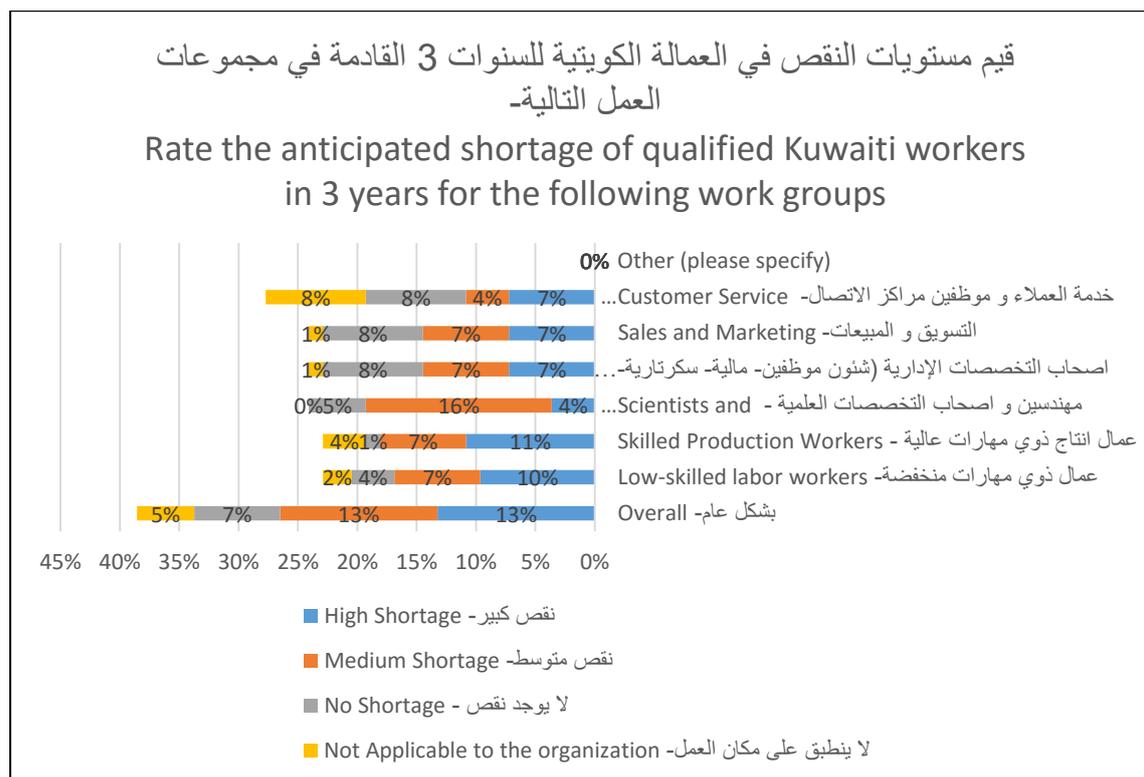
Answer Options	Response Percent
None - لا يوجد	22%
Less than 10% - أقل من 10%	28%
10%-50%	17%
More than 50% - أكثر من 50%	5%
Do Not Know - لا أعلم	0%

Question 2:



Answer Options	نقص كبير- High Shortage	نقص متوسط- Medium Shortage	لا يوجد نقص - No Shortage	لا ينطبق على مكان العمل- Not Applicable to the organization
Overall - بشكل عام	14%	16%	10%	8%
Low-skilled labor workers - عمال ذوي مهارات منخفضة	13%	8%	4%	5%
Skilled Production Workers - عمال انتاج ذوي مهارات عالية	14%	12%	1%	5%
Scientists and Engineers - مهندسين و اصحاب التخصصات العلمية	6%	13%	7%	4%
اصحاب التخصصات الإدارية (شئون موظفين- مالية- سكرتارية- الخ- Management and Admin (HR- FIN- Secretary- etc.)	4%	14%	17%	1%
التسويق و المبيعات - Sales and Marketing	7%	11%	12%	4%
خدمة العملاء و موظفين مراكز الاتصال - Customer Service and Center Staff Call	8%	7%	16%	8%

Question 3:

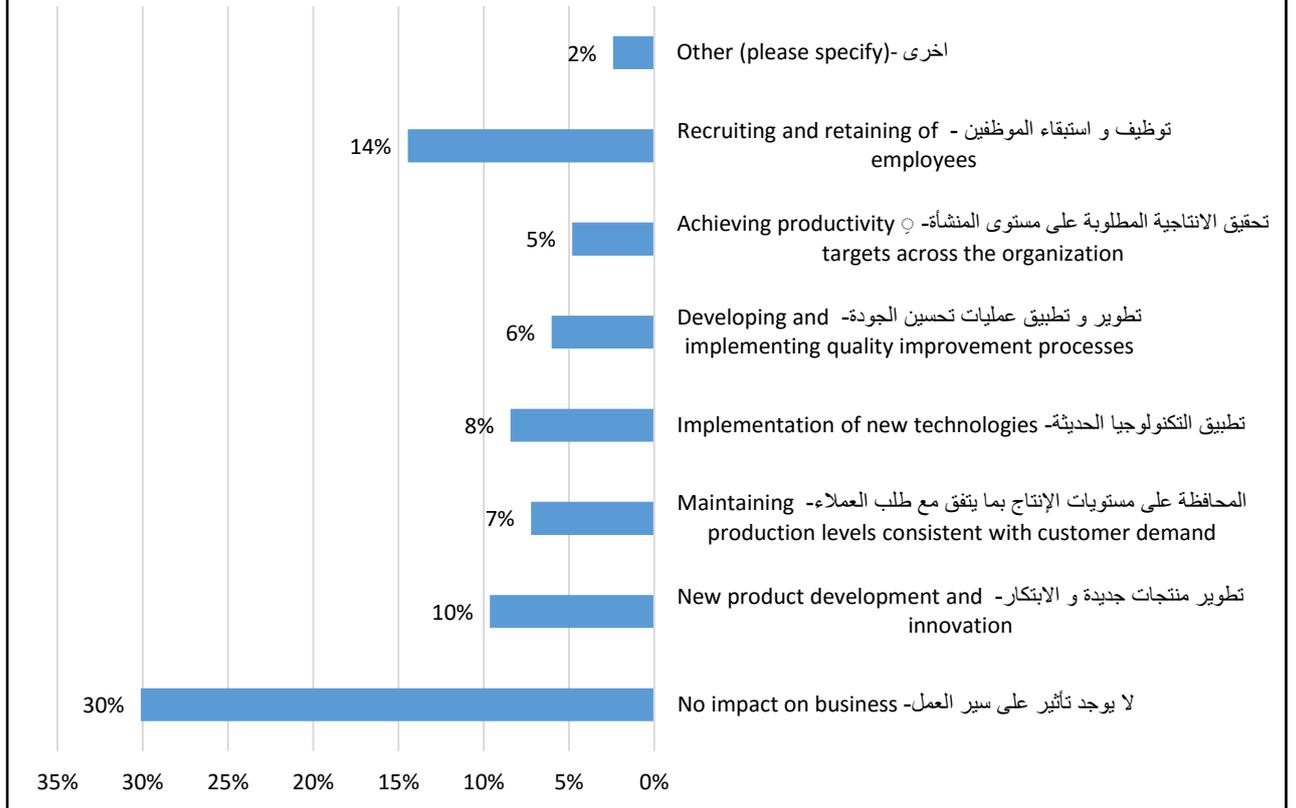


Answer Options	نقص كبير - High Shortage	نقص متوسط - Medium Shortage	لا يوجد نقص - No Shortage	لا ينطبق على مكان العمل - Not Applicable to the organization
Overall - بشكل عام	13%	13%	7%	5%
Low-skilled labor workers - عمال ذوي مهارات منخفضة	10%	7%	4%	2%
Skilled Production Workers - عمال انتاج ذوي مهارات عالية	11%	7%	1%	4%
Scientists and Engineers - مهندسين و اصحاب التخصصات العلمية	4%	16%	5%	0%
اصحاب التخصصات الإدارية (شئون موظفين- مالية- سكرتارية- الخ- (HR- FIN- Secretary- etc) Management and Admin	7%	7%	8%	1%
Sales and Marketing - التسويق و المبيعات	7%	7%	8%	1%
Customer Service and Call - خدمة العملاء و موظفين مراكز الاتصال	7%	4%	8%	8%
Center Staff	7%	4%	8%	8%
Other (please specify)	0%	0%	0%	0%

Question 4:

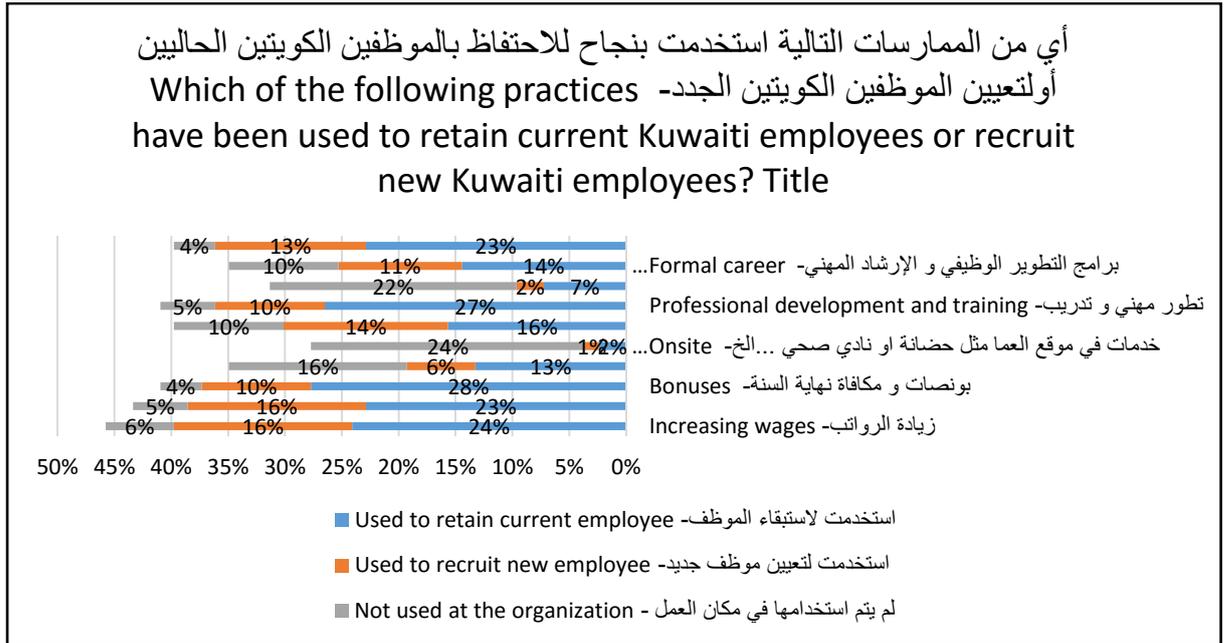
Answer Options	Response Percent
No impact on business - لا يوجد تأثير على سير العمل-	30%
innovation New product development and - تطوير منتجات جديدة و الابتكار-	10%
Maintaining production levels consistent with customer demand - المحافظة على مستويات الإنتاج بما يتفق مع طلب العملاء-	7%
Implementation of new technologies - تطبيق التكنولوجيا الحديثة-	8%
quality improvement processes Developing and implementing - تطوير و تطبيق عمليات تحسين الجودة-	6%
productivity targets across the organization Achieving - تحقيق الانتاجية المطلوبة على مستوى المنشأة-	5%
Recruiting and retaining of employees - توظيف و استبقاء الموظفين -	14%
Other (please specify)- اخرى	2%

كيف تأثر سير العمل في مؤسستكم بنقص مهارات العمالة الكويتية-
What is the impact of Kuwaiti workforce skill shortage on your
business operations



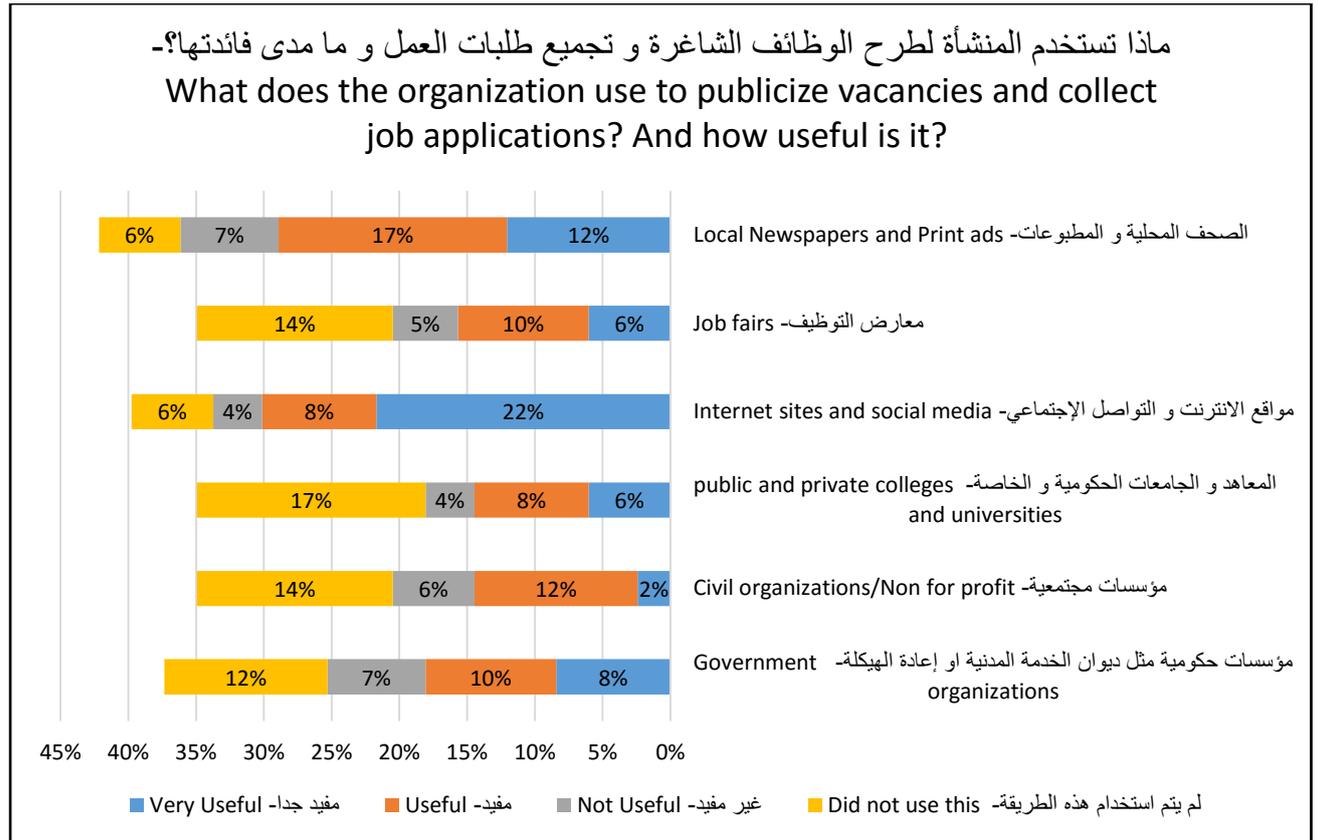
Part 2: Talent Recruitment, Retention & Training (questions 5-13)

Question 5:



Answer Options	استخدمت لاستبقاء الموظف - Used to retain current employee	استخدمت لتعيين موظف جديد - Used to recruit new employee	لم يتم استخدامها في مكان العمل - Not used at the organization
Increasing wages - زيادة الرواتب	24%	16%	6%
Employee incentives - مميزات وظيفية	23%	16%	5%
Bonuses - بونصات و مكافاة نهاية السنة	28%	10%	4%
Flexible working hours - ساعات عمل مرنة	13%	6%	16%
Onsite services (day care, gym, etc.) - خدمات في موقع العما مثل حضانة او نادي صحي ...الخ	2%	1%	24%
Healthcare Benefits - تأمين صحي	16%	14%	10%
Professional development and training - تطور مهني و تدريب	27%	10%	5%
Tuition reimbursement for undergraduate and graduate programs - سداد الرسوم الدراسية لبرامج البكالوريوس و الدراسات العليا	7%	2%	22%
Formal career development and mentor programs - برامج التطوير الوظيفي و الإرشاد المهني	14%	11%	10%
Healthy and attractive work environment - بيئة عمل صحية و جاذبة	23%	13%	4%

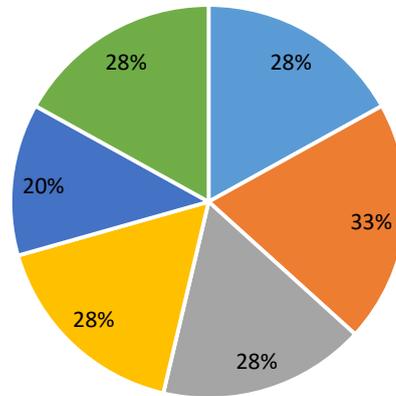
Questions 6:



Answer Options	مفيد جدا- Very Useful	مفيد- Useful	غير مفيد- Not Useful	لم يتم استخدام هذه الطريقة- Did not use this
مؤسسات حكومية مثل ديوان الخدمة المدنية او إعادة الهيكلة- Government organizations	8%	10%	7%	12%
مؤسسات مجتمعية- Civil organizations/Non for profit	2%	12%	6%	14%
المعاهد و الجامعات الحكومية و الخاصة- colleges and universities public and private	6%	8%	4%	17%
مواقع الانترنت و التواصل الإجتماعي- Internet sites and social media	22%	8%	4%	6%
معارض التوظيف- Job fairs	6%	10%	5%	14%
الصحف المحلية و المطبوعات- Local Newspapers and Print ads	12%	17%	7%	6%

Question 7:

أي من العوامل التالية ستكون أهم لنجاح عملك على مدى السنوات الثلاث المقبلة-
Which of the following factors will be most important for your business success over the next 3 years?

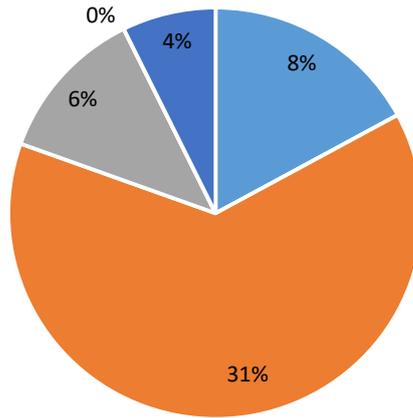


- Low cost production - انخفاض تكلفة الانتاج
- High-performance workforce - قوة عاملة عالية الأداء
- Product innovation and development - ابتكار و تطوير المنتجات
- Increased service levels - رفع مستوى الخدمات المقدمة للعملاء
- Integrated operations management - إدارة عمليات متكاملة
- Export to external markets - تصدير منتجات محلية للاسواق العالمية

Answer Options	Response Percent
Low cost production - انخفاض تكلفة الانتاج	28%
High-performance workforce - قوة عاملة عالية الأداء	33%
Product innovation and development - ابتكار و تطوير المنتجات	28%
Increased service levels - رفع مستوى الخدمات المقدمة للعملاء	28%
Integrated operations management - إدارة عمليات متكاملة	20%
Export to external markets - تصدير منتجات محلية للاسواق العالمية	28%

Question 8:

ما هي النسبة المخصصة من الميزانية للتدريب و التطوير في مكان عملك؟-
What percentage of the total budget is allocated for training and development?

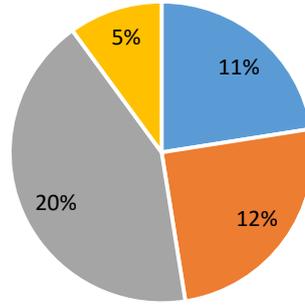


■ None - لا يوجد - 8% ■ Less than 10% - اقل من 10% - 31% ■ 10%-50%- 6% ■ More than 50% - أكثر من 50% - 0% ■ Do Not Know - لا أعلم - 4%

Answer Options	Response Percent
None - لا يوجد	8%
Less than 10% - اقل من 10%	31%
10%-50%-	6%
More than 50% - أكثر من 50%	0%
Do Not Know - لا أعلم	4%

Question 9:

مقارنة بالسنوات الـ 3 السابقة, هل هناك تغيير في ميزانية التدريب و التطوير؟-
Compared to 3 years ago, has the training budget changed?

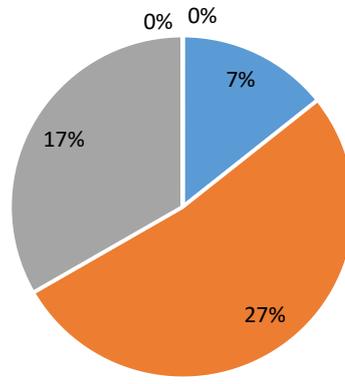


■ No allocated budget - لا يوجد ميزانية - ■ Increased - زيادة ■ No change - لا يوجد تغيير - ■ Decreased - نقصان

Answer Options	Response Percent
No allocated budget - لا يوجد ميزانية	11%
Increased - زيادة	12%
No change - لا يوجد تغيير	20%
Decreased - نقصان	5%

Question 10:

ما هي نسبة الموظفين الذين يحصلون على تدريب خلال السنة المالية؟-؟
What percentage of employees receive training through the fiscal year?

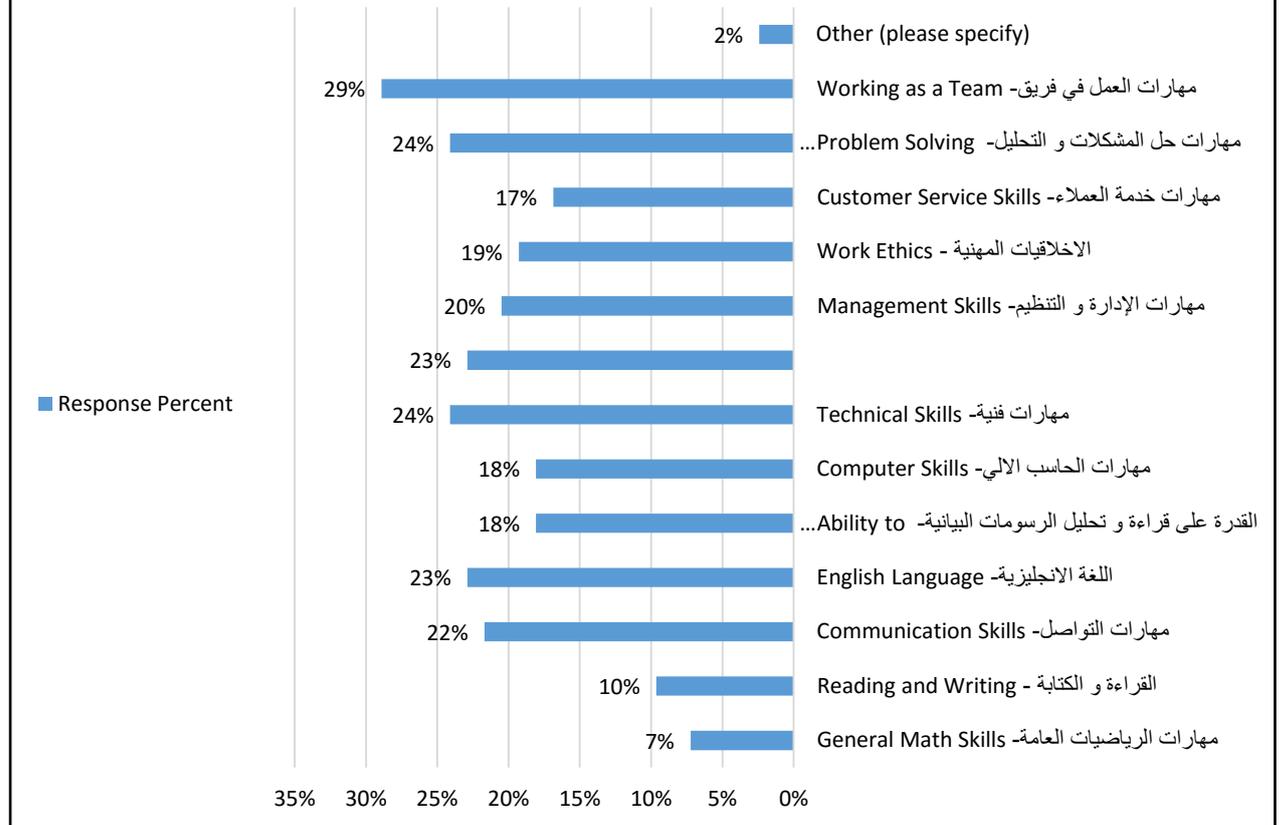


- No employee training available - لا يحصل الموظفين على اي تدريب
- Less than 10% - أقل من 10%
- 10%-50%
- More than 50% - أكثر من 50%
- Do Not Know - لا أعلم

Answer Options	Response Percent
No employee training available - لا يحصل الموظفين على اي تدريب	7%
Less than 10% - أقل من 10%	27%
10%-50%	17%
More than 50% - أكثر من 50%	0%
Do Not Know - لا أعلم	0%

Question 11:

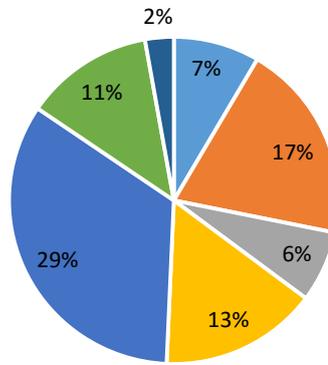
في اي من المهارات العامة التالية يحتاج الموظف الكويتي الى تدريب و تطوير؟- In which of the following general skills does the Kuwaiti employee require more training and development?



Answer Options	Response Percent
General Math Skills - مهارات الرياضيات العامة	7%
Reading and Writing - القراءة و الكتابة	10%
Communication Skills - مهارات التواصل	22%
English Language - اللغة الانجليزية	23%
analyze graphs and charts Ability to read and - القدرة على قراءة و تحليل الرسومات البيانية	18%
Computer Skills - مهارات الحاسب الالى	18%
Technical Skills - مهارات فنية	24%
thinking Innovation and creative - مهارات الإبداع و الابتكار	23%
Management Skills - مهارات الإدارة و التنظيم	20%
Work Ethics - الاخلاقيات المهنية	19%
Customer Service Skills - مهارات خدمة العملاء	17%
Problem Solving Skills - مهارات حل المشكلات و التحليل	24%
Working as a Team - مهارات العمل في فريق	29%
Other (please specify)	2%

Question 12:

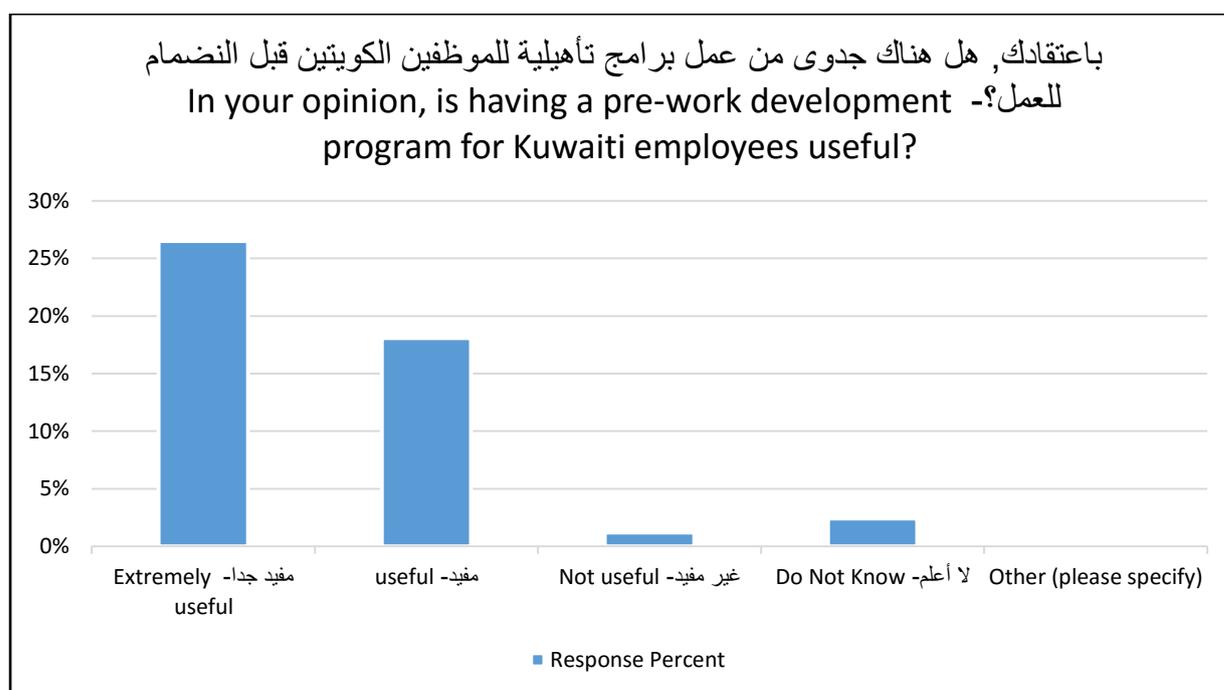
من برأيك يقوم بتقديم أفضل خدمات التدريب و التطوير لمكان عملك؟- In your opinion, who provides the best training and development services to your organization?



- Public colleges and universities-المعاهد و الجامعات الحكومية
- Private institutes and private universities-المعاهد الأهلية و الجامعات الخاصة
- Non for profit specialized associations-جمعيات النفع العام التخصصية
- Specialized unions-الإتحادات المتخصصة
- Consulting and training companies-شركات الاستشارات و التدريب
- Government entities programs-برامج المؤسسات الحكومية
- Other (please specify)

Answer Options	Response Percent
Public colleges and universities-المعاهد و الجامعات الحكومية	7%
private universities Private institutes and-المعاهد الأهلية و الجامعات الخاصة	17%
associations Non for profit specialized-جمعيات النفع العام التخصصية	6%
Specialized unions-الإتحادات المتخصصة	13%
Consulting and training companies-شركات الاستشارات و التدريب	29%
Government entities programs-برامج المؤسسات الحكومية	11%
Other (please specify)	2%

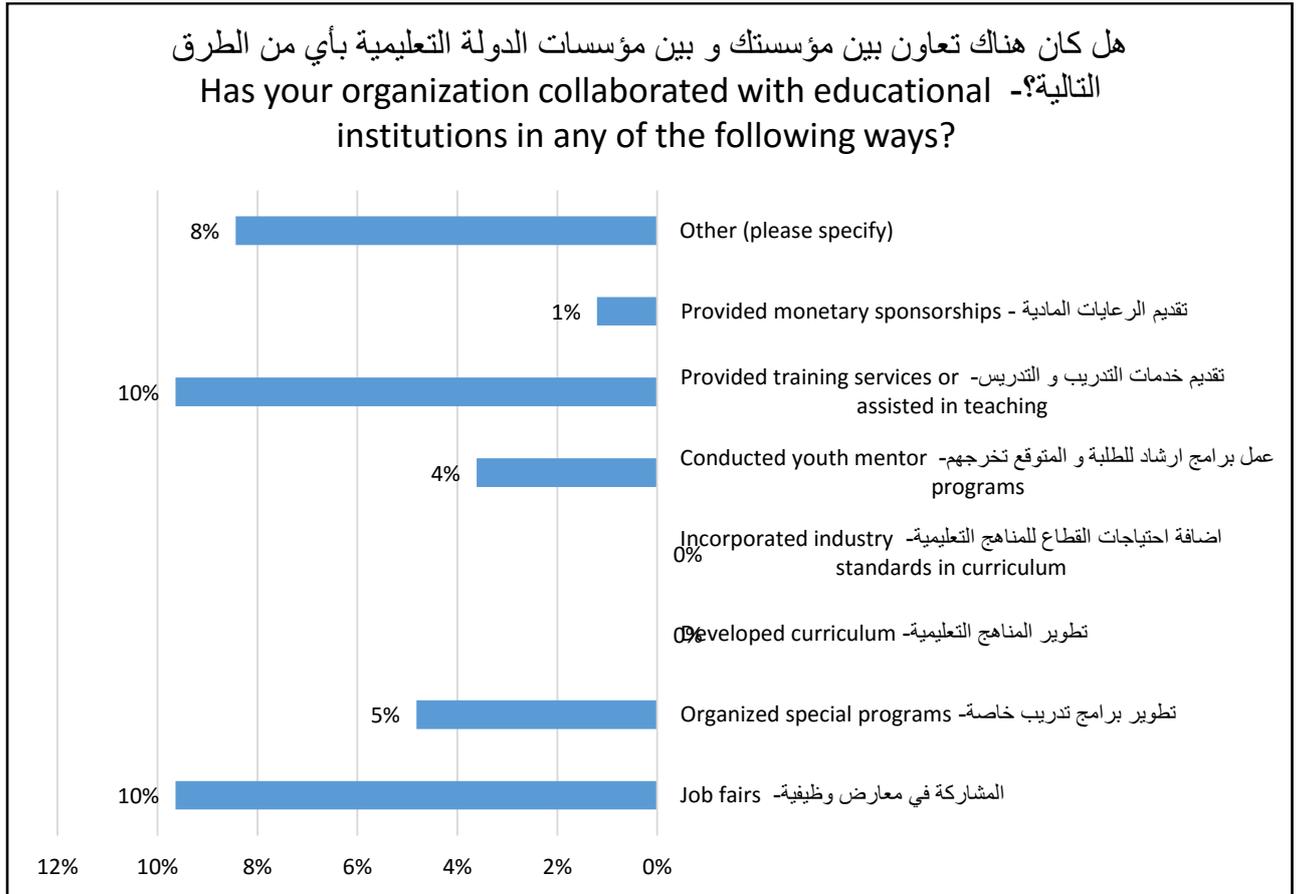
Question 13:



Answer Options	Response Percent
Extremely useful - مفيد جدا	27%
useful - مفيد	18%
Not useful - غير مفيد	1%
Do Not Know - لا أعلم	2%
Other (please specify)	0%

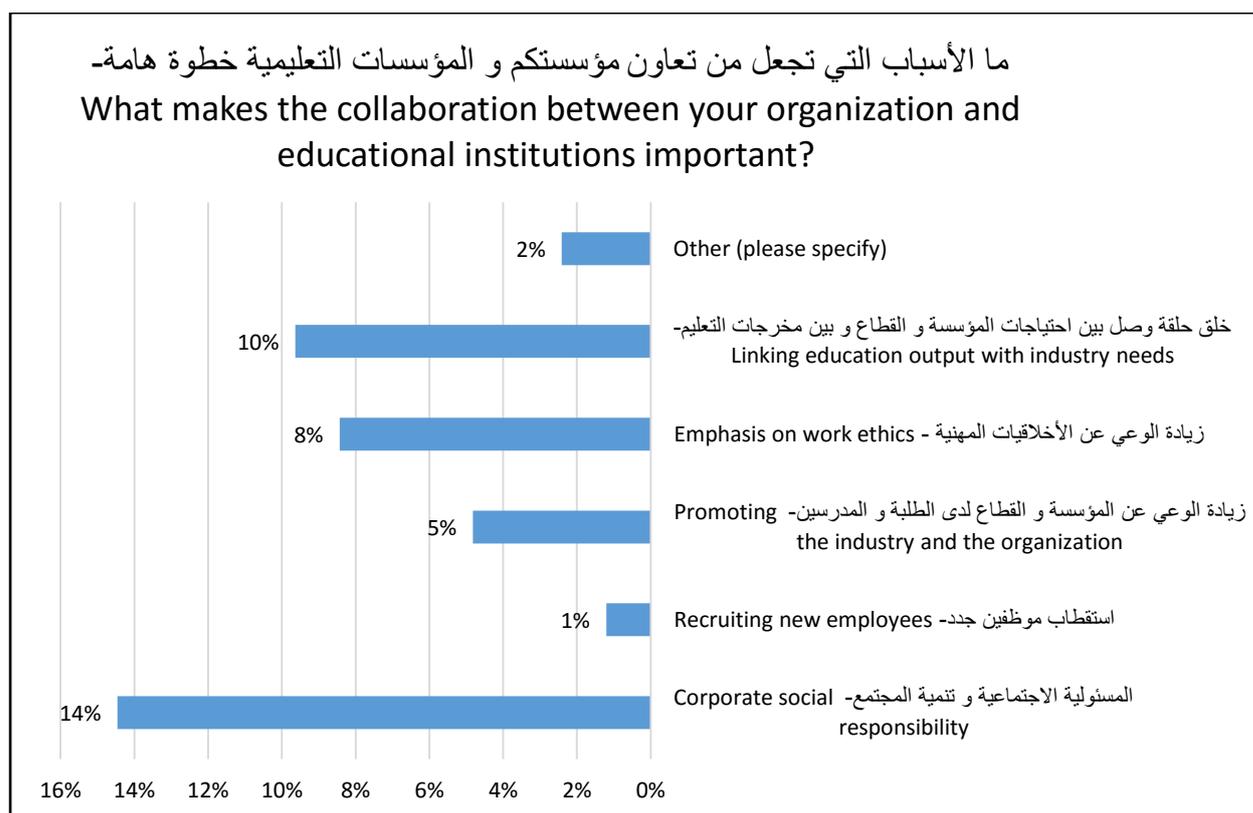
Part 3: Collaborations with the Educational System (questions 14-16)

Question 14:



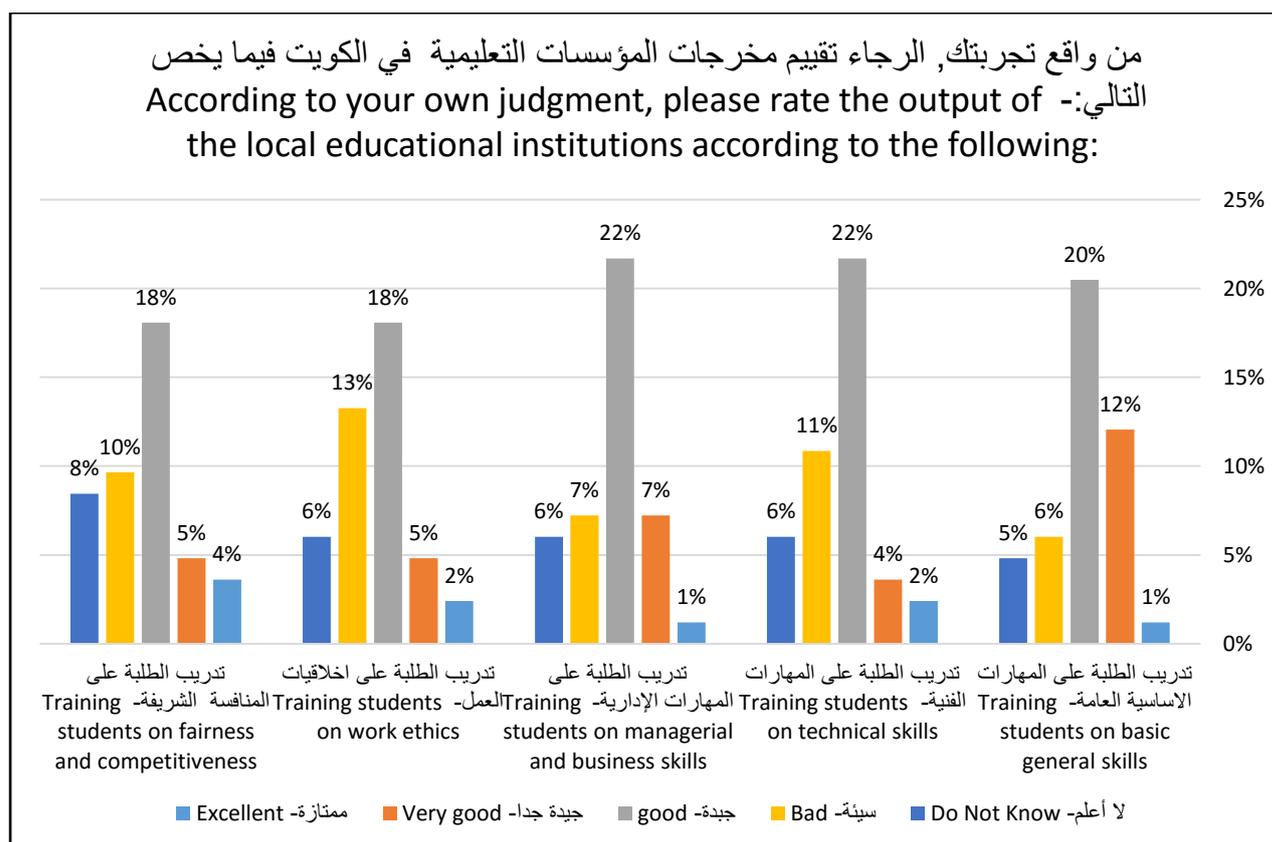
Answer Options	Response Percent
المشاركة في معارض وظيفية	10%
تطوير برامج تدريب خاصة	5%
تطوير المناهج التعليمية	0%
اضافة احتياجات القطاع للمناهج التعليمية	0%
عمل برامج ارشاد للطلبة و المتوقع تخرجهم	4%
تقديم خدمات التدريب و التدريس	10%
تقديم الرعايةات المادية	1%
Other (please specify)	8%

Question 15:



Answer Options	Response Percent
المسئولية الاجتماعية و تنمية المجتمع- Corporate social responsibility	14%
استقطاب موظفين جدد- Recruiting new employees	1%
زيادة الوعي عن المؤسسة و القطاع لدى الطلبة و المدرسين- Promoting the industry and the organization	5%
زيادة الوعي عن الأخلاقيات المهنية - Emphasis on work ethics	8%
خلق حلقة وصل بين احتياجات المؤسسة و القطاع و بين مخرجات التعليم- Linking education output with industry needs	10%
Other (please specify)	2%

Question 16:



Answer Options	ممتازة- Excellent	جيدة جدا- Very good	جيدة- good	سيئة- Bad	لا أعلم- Do Not Know
تدريب الطلبة على المهارات الاساسية العامة- Training students on basic general skills	1%	12%	20%	6%	5%
تدريب الطلبة على المهارات الفنية- Training students on technical skills	2%	4%	22%	11%	6%
تدريب الطلبة على المهارات الإدارية- Training students on managerial and business skills	1%	7%	22%	7%	6%
تدريب الطلبة على اخلاقيات العمل- Training students on work ethics	2%	5%	18%	13%	6%
تدريب الطلبة على المنافسة الشريفة- Training students on fairness and competitiveness	4%	5%	18%	10%	8%

Question 17: see PDF attached for written responses.

Question 18: see PDF attached for written responses.

Question 19: see PDF attached for written responses.

Question 20:



Answer Options	Response Percent
Yes - نعم	41.4%
No - لا	58.6%