Research Paper

Strengthening the Link between Universities and Labour Market Requirements

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Abstract

The link between university education and labour market requirements requires redrafting the curricula of university education in form and substance to ensure that it includes focus on work environment problems and the surrounding community, the need to fulfil the curriculum and university programmes education requirements and the needs of professional practice, so as to achieve quality performance and practical implementation. There is a need to achieve an organic link between the structure of university education on one hand and business structures on the other; this requires careful attention to the needs of the labour market. The author in this paper deals with assessing the link between Libyan universities and the labour market, and at the level of business sectors to identify how universities can meet the needs of the labour market and the impact on the level of university graduates. The results of the study applied showed that there is no link between universities and the labour market in various sectors, which led to a gap between the level of university graduates and the required level of graduates in the labour market.

Key Terms: business sectors, labour market, universities.

1. Introduction

The lack of linkage between universities and labour market requirements led to a lack of training students to meet the new requirements of the labour market; this lack of linkage and coordination between universities and sectors of the labour market manifests itself as follows (William, 1994):

- Continuing deterioration of the knowledge and abilities of students.
- Spread of functional illiteracy among students.
- Low level of graduates of the current education system lacking the skills required for many traditional jobs; this will leave them even more badly prepared for the more complex jobs that will dominate the labour market today and tomorrow.
- Weak trend in employing current university graduates in professional positions; they prefer white collar positions because they did not acquire practical skills for professions.
The Libyan universities cannot remain confined to their traditional management that separates them from the transformation of society and the labour market, which in turn has become part of the global market. These universities cannot continue in their role of graduate and these universities would be unable to face competition from other universities which use modern education methods.

The researcher finds that the lack of linkage between universities and the labour market is one of the reasons for the gap between the actual level of university graduates and the required level of the labour market.

2. **Objective of the study**

The study objectives is to assess the relationship between Libyan universities and labour market requirements; examine the influence of academic fields and disciplines on labour market characteristics; assess the influence of university graduates, development of curricula and teaching modern science, and university training programmes on the labour market needs.

3. **Research Methodology**

The research questions were answered using multiple data sets showing percentages which explained the benefits of comprehensive assessments of areas that influence the needs of university graduates. The results will be used to explore how the quantitative and qualitative techniques may be used to support Libyan universities in enhancing their quality in an effective way while harmonizing with labour market requirements. Descriptive approach linked to the interpretation method used, and integrated with it.

The sample consisted of staff members chosen randomly from the staff members in some Libyan universities. A structured questionnaire was used to collect data on Strengthening the Link between Universities and Labour Market Requirements through measuring the opinions of sample towards the independent variables that reflect the requirements.

4. **New Changes in Labour Markets**

The world has witnessed over the past few years a number of key variables, which touched all aspects of our economic, social and cultural differences to some degree, and a series of challenges to be faced. The most important of these variables are as follows (Hebert, Dellana & Bass, 1993):

A. Formation of a new world with one global market, which requires a global perspective of thinking at work and productive marketing and financing.
B. Dropping tariff barriers and opening doors towards global trade presents difficulties in weak domestic economies.
C. Increasing attention to the quality of goods and services, quality systems based on production, quality management and performance, as they will obtain ISO certificates and having comprehensive quality is the desired reputation for all organizations in this era.
D. Progress and technological development not only in production, but in marketing, investment and regulation.
E. Enormous progress in information and communication technology has led to global technological.
F. Evolution in teaching and learning formulas to accommodate all these changes and developments.
5. **Areas That Influence The Needs Of University Graduates**

There are many areas that influence the needs of university graduates as follows (Cavaness, 1993):

- Change of vision for the business community from local to global; we must reflect on all our curricula and our research, methods and systems of education with the required openness to other cultures, and learn from the experiences of advanced countries in the area of linking university education to the labour market.
- Widening markets and the fall of barriers requires revision of curricula and reviewing the content and decisions.
- The increased attention to quality means attention to quality in everything, and the curriculum must be characterized by the same quality to provide a suitable educational system.
- The technological race is strongly reflected in the content of decisions and the delivery systems of knowledge and learning development.
- The concept of privatization must be dealt with carefully for the development of higher education to increase its effectiveness.

It is imperative to develop versions of education by trying to answer some important questions such as:

1. How to deal with universities with large numbers?
2. How to provide sources of knowledge and information more widely to the student and professor?
3. How to introduce flexibility in the curriculum to keep pace with future changes?
4. How to measure performance and evaluation?
5. How to encourage creativity and innovation and the development of analytical capacity in solving problems?
6. How to serve the community and contribute to the development of the environment?

The lack of development of higher education in line with the requirements of the labour market has led to a widening gap between what students study (the concepts and theories) and what graduates find in practice when joining the workplace; this most important aspect of education has affected the widening gap in differences between reality and the practical implementation of academic learning as follows (Salah, 1995):

1. The level of modernization of curricula: must be tied to the environment, because the environmental dimensions of society have an impact on the formulation of the objectives of university education.
2. The lack of practical training for student: the theoretical aspects studied by the students need to be implemented in practice; the theoretical study alone is not enough, and leads to deficiency in graduation competency in dealing with reality and changes.

So graduates can fully play their role in any position, we must be fully aware of including the study of science and how to apply it in reality, so it is necessary to have the opportunity of practical training with a combination of the practical and scientific. We must therefore encourage students in self-education and creative thinking, pushing them to search for science and knowledge rather than indoctrination, and training in academic research, which will result in graduates able to compete in the labour market.
7. **Links Between University Education and The Labour Market**

The areas of participation and linkage between universities and various sectors of the labour market take many forms, illustrated as follows (Berry and Zeithaml 1990):

1. Finding common goals between the university education and labour market sectors, and working to convince each party that it will succeed in achieving its objectives only through participation and cooperation with the other party.

2. It is possible for some businesses to provide its facilities and research laboratories for university students for education and training; the responsibility lies on the sectors of the labour market with different technologies in helping students to recognize and train in technology at their disposal.

3. The establishment of relations between the scientific and practical sectors of the labour market and education sector and the university could take various forms of such relations, including:
   - The university uses the expertise of the business sector in the design of labs and updating equipment compatible with the latest technology.
   - The participation of specialists in the business sector in overseeing some research students and directing them to choose their research in areas related to certain specific activities of the organization, with the assistance of scientific and technological material for student researchers.
   - Agreements between some sectors of the labour market and universities provide for the implementation of programmes to allow final-year students in all disciplines to work in these institutions side by side with permanent employees in a regular manner, giving students the opportunity to gain practical skills.

4. Some institutions could provide computer programs to contribute to raising the efficiency of students in the field of computers, and integrate these programmes in the curricula of university education to upgrade skills of students in computer development, as one of the requirements of the labour market.

5. Financial assistance from the business sectors in the form of grants or subsidies to build educational facilities and processing laboratories, workshops, libraries and research centres.

6. Business organizations providing students and teachers an opportunity to make field visits to work sites and learn about different methods of working, and to identify the quality of skills required for the labour market for inclusion in the educational curricula in universities.

7. Providing an opportunity for faculty members and academic leaders to train in certain business sectors, this helps academics to gain practical experience of work, as well as the opportunity for them to obtain information on the practical implementation of some theories. At the same time they can provide their knowledge and academic specialization to business sectors, contributing to the rapprochement between reality and academic theory.

8. Establishing close contact between businesses and the higher education sector, and that comes through the planning process and facilitating communication between the parties through the management of coordination between the education sector and sectors of the labour market, and also established a unit in each ministry or body by contacting the department of the Supreme Council of Universities to coordinate the roles and activities needed to identify and determine areas of linkage between the two sides.

9. The responsibility of universities is to identify the needs of sectors in the labour market in terms of capabilities and skills, and helping students to choose suitable jobs for their abilities and skills. They should also encourage people with a university education to be active members in business associations, to become acquainted with the activities in their locality. Prominent businessmen should be appointed to the boards of universities and faculties to transfer their expertise to the process of the
university, and provide necessary facilities for students and faculty in their institutions and their projects.

8. Results and Discussion

<table>
<thead>
<tr>
<th>Variable</th>
<th>Phrase</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>There is insufficient recognition by universities of the needs and expectations of the labour market in terms of graduates (quantity and quality)</td>
<td>55 19 115 40 99 34 18 6 1 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.2</td>
<td>There is constant contact and coordination between various institutions and universities to develop curricula and educational programmes in line with the requirements of the labour market.</td>
<td>46 16 113 39 91 32 26 9 12 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.3</td>
<td>There is no clear relationship between the requirements of different professions and the type of university education and its contents.</td>
<td>7 2 55 19 78 27 103 36 45 16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.4</td>
<td>There is the responsibility of the various production sectors in the training of students on a regular basis in modern technology.</td>
<td>0 0 31 11 76 26 60 21 121 42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.5</td>
<td>Directing university students to study fields and disciplines that are increasingly in demand in the labour market.</td>
<td>0 0 42 15 128 44 102 35 16 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.6</td>
<td>Universities focus on the preparation of competency in all areas required by the market work.</td>
<td>53 18 102 35 82 28 41 14 10 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.7</td>
<td>There is a large consensus between what is taught in the university faculties and the requirements of posts available in the labour market.</td>
<td>75 26 118 41 90 31 5 2 0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.8</td>
<td>Students after graduating do not need specific training for a new function</td>
<td>78 27 105 36 80 28 24 8 1 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.9</td>
<td>We believe that academic departments and educational areas within the Libyan public universities will cover all disciplines required for the job market.</td>
<td>67 23 124 43 72 25 23 8 2 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 Frequency distribution table for the data on assessing the linkage between universities and the Labour Market Requirement

Figure 1: Illustration of frequency histogram for variables of assessing the linkage between universities and the Labour Market Requirements

The Quantitative Data in Table 1 shows an analysis of the frequency of study sample responses on the characteristics of the link between universities and labour market requirements. From the table we can note that the frequency distribution of answers about phrase A. 1, 40% indicated 'disagree' and 34% chose 'agree somewhat', a total frequencies equal to 214, or 74%: this indicates the universities are failing to recognise the needs and
expectations of the labour market in terms of quality, type and quantity of graduates. For a quantitative comparison of current images of responses to questions correlated with variables of A.5, A.6, and A.7 may be especially sensitive to integration with the characteristics of labour market.

The chart representation of the frequencies on the quantitative data indicates that phrase A.4 has a percentage of 42% and takes the form of right-skewed distribution, or high frequency, in the class of ‘strongly agree’, gradually declining in the classes of low approval and scoring lower in the category of full agreement, indicating the degree of approval is high for the term in question; whereas the chart illustrating the frequency of the quantitative data indicate on phrase A.9 take the form of left-skewed distribution, or high frequency in the class of ‘disagree’, gradually declining towards classes of high agreement, which indicates that the degree of consent is (low approval) for this phrase. We also note that the distribution of answers on the frequency of phrases (A.3, A. 5) have percentages of (36%, 35% respectively) and take the form of right-skewed distribution, or high frequency, in the class of ‘agree’ gradually declining in the classes of low approval and scoring lower in the category of full agreement, indicating the degree of approval is high for the term in question.

The trend in the survey sample of those terms tend to a high frequency of ‘strongly disagree’ (35%) with standard deviation = (0.79), reflecting the substantial homogeneity of opinion on the terms, and this means the sample respondents are convinced that the various institutions of higher education (under study) still need to directing university students to study fields and disciplines that are increasingly in demand in the labour market to strengthen its results. As a result of the level and nature of the new labour market these variables have affected higher education policy in general and university education programs in particular. However, the results of graphical data analysis show there is no link between universities and labour market needs, mainly in terms of lack of awareness of the university to the needs of the labour market, both quantitatively and qualitatively, and not directing students to the disciplines that are increasing demand in the labour market; a lack of clarity in the relationship between the requirements of different professions and the type of university education and its contents. This showed the depth of difficulty and obstacles of coordination between universities and various business sectors as regards the development of curricula and teaching modern science to strike a balance between what is taught and what is required by the labour market. Analysis of survey responses also indicated the failure of the university training programmes for students during the study, as well as lack of initiative by business sectors for this task. Therefore, The process of education and training in the existing system is dominated by the theoretical training and education, not matched to output education and training system and labour market needs, and that despite the expansion of the areas and levels of education and training the local labour market has not yet arrived to meet their needs from many disciplines and professions.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>95% Confidence Interval of the Difference</th>
<th>Z-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>2.3</td>
<td>0.86</td>
<td>2.2 2.4</td>
<td>-14.09</td>
</tr>
<tr>
<td>A.2</td>
<td>2.5</td>
<td>1.00</td>
<td>2.3 2.6</td>
<td>-9.12</td>
</tr>
<tr>
<td>A.3</td>
<td>3.4</td>
<td>1.04</td>
<td>3.3 3.6</td>
<td>7.00</td>
</tr>
<tr>
<td>A.4</td>
<td>3.9</td>
<td>1.06</td>
<td>3.8 4.1</td>
<td>15.12</td>
</tr>
<tr>
<td>A.5</td>
<td>3.3</td>
<td>0.79</td>
<td>3.2 3.4</td>
<td>6.87</td>
</tr>
<tr>
<td>A.6</td>
<td>2.5</td>
<td>1.06</td>
<td>2.4 2.6</td>
<td>-8.20</td>
</tr>
<tr>
<td>A.7</td>
<td>2.1</td>
<td>0.80</td>
<td>2.0 2.2</td>
<td>-19.42</td>
</tr>
<tr>
<td>A.8</td>
<td>2.2</td>
<td>0.94</td>
<td>2.1 2.3</td>
<td>-14.74</td>
</tr>
<tr>
<td>A.9</td>
<td>2.2</td>
<td>0.91</td>
<td>2.1 2.3</td>
<td>-14.96</td>
</tr>
</tbody>
</table>

Table 2 Mean, Standard Deviation, and Z-Test results about phrases which relating to assessing of the linkage between universities and the labour market requirements
Extrapolating from the above table, it is clear that the statistical mean values and standard deviations computed by SPSS for the study sample responses on strengthening the link between universities and labour market requirements (reflect the link of universities needs with the labour market, development of curricula and teaching modern science, develop an action plan for change, mobilize energies and prepare fully for the process of educational areas, training programs) varied between (2.1 - 3.9). If we compare these to the average allocated value of (3), we can conclude that all these variables are less than this value, indicating that the universities are not addressing the characteristics of labour market, despite its importance linkage with the elements of business structures to help them become more efficient with their limited resources and, as a result, to gain better quality performance outcomes. To determine the most important indicators to confirm the interpretation chosen by sample members, Z-test and standard deviation was calculated for the (4) variables of linkage between universities and labour market requirements. From the table we note that the mean of approval on the variables A.1, A.2, A.6, A.7 and A.9 are less than 3 (less than ‘agree somewhat’).

The results show that the analysis with SPSS (One-Sample T) Mean and Z-test reflect the multiple constraints and difficulties in the process of preparation of graduates to meet the needs of the labour market and enable them to compete at regional and global levels. The results of the applied study showed the inadequate level of quality of service provided to students by universities compared with the level consistent with their expectations and desires.

The link between university education and the labour market could be improved through:

a. Finding common goals for both sides.

b. The work of joint educational programmes; mean value = (2.5) with standard deviation = (1.00).

c. Financial aid and training sectors of the work to universities.

d. Joint cooperation in the fields of scientific research.

e. Curriculum development based on prior studies of the labour market requirements; mean value = (2.5) with standard deviation = (1.00).

The results of the study applied showed that there is no link between universities and the labour market in various sectors, which led to a gap between the level of university graduates and the required level of graduates in the labour market; mean value = (2.1) with standard deviation = (0.80).

Proposals to achieve harmonization between the output of higher education and labour market requirements
The need for planning requires awareness of the change in university education and higher education at the global level in the light of the four themes highlighted by Madani (2002), namely:

1. Expansion policies in education: education as the key to social mobility, economic opportunity and prosperity, meeting the needs of the advanced economy and providing practical elements of the modernization of society.
2. Modernize systems and methods of university study: the impact of information technology and computers has radically changed university teaching systems and methods which prompted the university to help students acquire the skills of self-learning techniques, and paid professional development for faculty members to improve the effectiveness of students and the university.
3. Direction to the quality of higher education: the need to adopt the trend of universities and evaluate the performance of systems made for achieving quality and efficiency in the university system.

Through these axes, a number of proposals can be provided to achieve harmonization between the output of higher education and labour market requirements, which are as follows (Aasan, 2006):

- Focus of universities and higher institutions on researching the prospects of change and expectations, such as population change, economic conditions, societal changes, changes in industry and technology.
- Intensify good investment in higher education and scientific research and promote initiatives aimed at building a knowledge-based economy.
- Attention to higher education and vocational technical frameworks for the preparation of specialized and qualified graduates, responsive to the requirements of the knowledge society.
- Expansion in linking universities, libraries and research institutions electronically, and achieving effective communication with their counterparts at both regional and global levels.
- Work on spreading the use of computers and the Internet, and hastening the implementation of e-governance in all institutions of higher education.
- Audit of the university disciplines and programmes and curricula by the periodic review in the light of the developmental needs and demands of the labour market in the future.
- Develop the contents of educational programmes to be compatible with the nature of the objectives sought by society, both current and with regard to future prospects, which can be achieved through reviewing the content of existing programmes.
- Emphasis on the need to link higher education and university work in a continuous process, achieving integration between them, through training of manpower after being qualified, and therefore the integration of the preparation and training functions of higher education institutions under the concept of continuing education.
- Emphasis on continuous assessment of performance in order to raise productivity at all levels.
- Stress that higher education is not the service but the process of productivity, output and productivity that gives them clear economic benefit at all levels of public life.

9. Conclusion

Given the multiplicity of these proposals, the researcher finds that most proposed solutions to achieve harmonization between the output of higher education, and between the needs and requirements of development plans for higher education in Libya linked to match strategic planning for universities on one hand and the development and labour market on the other hand, can be summarized according to their order of importance as follows:
• Choose leaders of higher education institutions according to the ability to manage new changes in labour markets and to provide adequate training before commissioning the management of these institutions.

• Introduce total quality management approach in the management of institutions of higher education and thus achieve enhanced performance of these institutions and functions (preparation of manpower, scientific research, cultural and intellectual stimulation) satisfactorily.

• Obligation to strategic planning focused on the development of future scenarios and a willingness to deal with anticipated problems and developing the capacity to tackle and find solutions to them, and predicting the resulting effects and repercussions.

• Support modern disciplines that achieve compatibility between education and the needs of the community represented by the businesses and productive enterprises.

• Audit programmes of universities, faculties and curricula; improvement and development to become closer to the needs of students and the community, and contribute to the development of students' creative and innovative skills and strengthening their self-confidence and preparing them for productive work.

• Activating dialogue and strengthen cooperation and coordination between universities and the labour market to develop plans, policies and strategies to achieve integration and serve the demands of development and assist in the development of disciplines required and development programmes and educational curricula.

• Build a collaborative productive university/industry to enhance learning practices, which is intended to achieve the functions which are expected in education, research and community service, integrating these functions in order to achieve some additional financial resources through multiple methods and means, including: continuing education, consulting and contract research and production activities.

• Periodically assess the implementation process of such institutions to ensure that the foundations lie on the basis of objectives, strategies, programmes and the requirements of development and work to improve performance.

• Ongoing assessment of the quality of the performance and strategic plans and programs and curricula in order to raise productivity at all levels.

Reference


