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A COMPETENCY-BASED EDUCATION SYSTEM IN UNIVERSITIES TO FILL THE GAP IN THE LABOUR MARKET IN SAUDI ARABIA

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ABSTRACT

The study examined the role of the competency-based education system in developing the required outputs of Saudi Arabia universities. These outputs contribute to job localisation, linking them to the labour market's needs to reduce unemployment in achieving the Saudi Vision 2030. This strategic framework identifies difficulties faced by universities in Saudi Arabia when shifting to the competency-based education system.

Design: *A descriptive approach was employed to review and analyse relevant literature. Focus groups and the expert panel method were used for data collection*

Findings: *The study concluded that significant difficulties facing Saudi Arabia universities include communicating with the employment sector and their participation in developing curricula and training graduates, the quality of academic programmes and developing them to align with the labour market needs, and the functions of universities and their preoccupation with education. The study suggests a model for a competency-based education system in Saudi Arabian universities to fill this gap.*

Keywords: Higher Education, Labour Market, Human Resources, Universities, Competency-Based Education.

INTRODUCTION

The Saudi Vision 2030 (SV2030) believes in the critical importance of education and its role in driving societal development forward to support the economy. This vision affirms the nation's need to invest in its most important resource, which is its human capital. It plans to develop individual's skills and support their capabilities through adopting a philosophy of linking education to the labour market needs.

Further, the vision encompasses continued investment in education and training so that its young men and women are equipped for future jobs. It will involve redoubling efforts to ensure that the outcomes of the country's education system are in line with its market needs.

In prior studies, researchers have addressed many indicators that address the urgent need to harmonise educational outcomes with the needs of the labour market in various Gulf countries and the Arab world (Alajmi & Alothman, 2012; Aldalou, 2016; Alhusseini, 2016; Graduate Survey Department, 2016; Issa, 2017; Khoury, 2013).

Also, a report by UNESCO on financing education in Arab countries confirmed that these countries have generally invested in free public education and have yielded relatively good

results. Still, the time has come to introduce changes at the policy level to move from quantitative education to an education system based more readily on quality. This pressure comes from the country's labour market needs, as it seems that education, in general, does not adequately prepare people to enter the labour market successfully and productively (UNESCO, 2018).

In addition, employers recruiting new employees often focus on a variety of skills that most jobs need, which can be acquired or trained for. Some of these skills include working under pressure, communication, passion for work, motivation, commitment, and the ability to work independently (Graduate Survey Department, 2016).

On the other hand, the role of most Arab universities is limited since they are teaching institutions only. As a result, they do not focus in their learning outcomes on the necessary skills needed in the labour market and the business community (UNESCO, 2018).

Simultaneously, the link between education and jobs in the work environment in the Kingdom of Saudi Arabia (KSA) requires unconventional work that accommodates the nature of Saudi society, its educational system, and the needs of the Saudi labour market. This market, which has resisted many serious attempts to localise jobs, has accumulated problems. First, the KSA is close to universal literacy and has seen a dramatic increase in university enrolments in the last decade. Second, while educational attainment has grown rapidly, returns to education are low, and women face particularly low returns regarding tertiary education. Third, the level of unemployment in the KSA is relatively high overall, and particularly high among women, youth, and the well-educated. Fourth, the lack of information about the availability of jobs, and the weak professional networks for youth and female employees, make it costly and time-consuming for them to hunt out jobs that match their skills. In turn, it is difficult for firms to find qualified candidates. Fifth, there is a large mismatch between the skills that Saudis acquire and those that employers look for (Evidence for Policy Design, 2019).

Of course, the availability of a qualified, highly efficient, and productive national workforce is an essential condition for achieving sustainable development. Moreover, in the KSA, some bodies share responsibility with universities to improve the quality and efficiency of education and support the national economy and its development. The National Center for Academic Accreditation and Evaluation (NCAAA) is an example of a body that shares such responsibility with universities. The Education and Training Evaluation Commission (ETEC), a body concerned with the accreditation and assessment of education and training in the KSA aims to enhance their quality and improve both their efficiency and their contribution to national economy and development. The NCAAA is one of the centres overseen by the ETEC, which has a legal personality and administrative and financial autonomy. The NCAAA acts as the body in charge of academic accreditation and quality assurance in public and private higher education institutions (NCAAA, 2021).

The Saudi Arabian Qualifications Framework (SAQF) also shares responsibility with universities for quality improvement, education efficiency, economic support, and development. This framework was developed to contribute to the reform of education and training in Saudi Arabia, and to standardize how national registered qualifications within the country are recognized. The SAQF was designed to promote confidence, value, and validity in relation to all qualifications available throughout Saudi Arabia. It was developed as a response to the needs of the different sectors of education, training, and employers (public and private). It is also part of the context of shaping the educational and training qualifications system, which encompasses all kinds of learning. The SAQF promotes mechanisms for the recognition of all types of learning

and facilitates progression between the technical, vocational, academic, and training sectors (The European Centre for the Development of Vocational Training, the European Training Foundation, the United Nations Educational, Scientific and Cultural Organisation and the UNESCO Institute for Lifelong Learning, 2019).

The National Labour Gateway (TAQAT), a further example of a collaborating partner with universities, is a comprehensive and integrated electronic platform for the labour market in the KSA, including public and private sectors and employment services suppliers. It works by translating the human resource development policies and visions in the KSA into effective programmes that support the national economy through ensuring qualified workforces. It aims to create a high-quality digital job market to enhance Saudi workforce competitiveness, empower job seekers, and enhance the nationalization rate among the workforce (Human Resources Development Fund, 2020).

A Competency-Based Education System and the Labour Market

The SV2030 aims toward an education system that contributes to advancing the economy by closing the gap between the outputs of higher education and the requirements of the job market. It helps students to make careful career decisions while simultaneously training them and facilitating their transition between different educational pathways. This is achieved through the preparation of a modern curriculum focused on rigorous standards in literacy, numeracy, skills, and character development. The stakeholders behind the SV2030 have worked closely with the private sector to ensure higher education outcomes which are aligned with job market requirements.

At the same time, studies indicate the need for new solutions and an innovative strategic vision that supports governments' efforts in developing policies for nationalizing jobs. These need to be more effective, creating a balance with the needs of citizens and government development plans (Khoury, 2013).

The SV2030 is leading the country in this direction, by building a new and innovative work system that contributes to achieving its goals in an innovative way. Education in the SV2030 seeks to build qualified human resources that meet the labour market requirements by improving educational outcomes.

In other words, the outcomes of the educational system are a major factor affecting future labour market conditions, especially the extent to which it can keep pace with developments in economic activity and its job needs (Alajmi & Alothman, 2012).

Without question, unemployment is one of the major challenges facing any society because of its negative impact on comprehensive development, community building, the national economy, and having a direct negative impact on living standards. The SV2030 has given it dedicated attention in that one of its vision goals is to reduce the unemployment rate from 11.6% to 7%.

To explain unemployment in Saudi Arabia further, according to estimates by The General Authority for Statistics (GASTAT) based on the Labour Force Survey, the unemployment rate of total population (Saudis and non-Saudis 15 years and above) decreased to 7.4% in the fourth quarter of 2020. This is contrasted with 8.5% during the third quarter of the same year. Moreover, the unemployment rate of all Saudis (males and females 15 years old and older) decreased to 12.6% in quarter four of 2020, compared to 14.9% during the third quarter of the same year. In the fourth quarter of 2020, the overall Saudi unemployment rate of 12.6% almost reached the same level as in quarter four of 2019 (12.0%), before the onset of COVID-19 (The

General Authority for Statistics, 2021). A large percentage of those who have higher education diplomas are unemployed, making up 47.7% of the unemployed population, reaching 62% for women and 28.3% for men Table 1.

Table 1 PERCENTAGE DISTRIBUTION OF UNEMPLOYED PERSONS (15 +) BY SEX, NATIONALITY, AND EDUCATIONAL LEVEL (%).									
Education Status	Total	Non-Saudi			Saudi				
	Total	Female	Male	Total	Female	Male	Total	Female	Male
Illiterate	0.5	0.2	1.0	2.2	0.6	3.3	0.2	0.1	0.2
Read and write	0.6	0.5	0.8	1.8	1.0	2.3	0.4	0.4	0.3
Did not complete primary school	0.5	0.4	0.5	1.2	0.5	1.7	0.3	0.4	0.1
Primary	3.4	2.0	5.1	6.1	2.5	8.4	2.8	2.0	4.0
Intermediate	7.6	4.5	12.0	15.3	11.7	17.7	6.0	3.5	10.1
Secondary or Equivalent	30.2	21.6	41.9	41.0	29.8	48.4	27.9	20.4	39.7
Diploma	7.3	5.7	9.4	4.5	8.7	1.7	7.9	5.3	12.0
Bachelor's degree	47.7	62.0	28.3	25.1	39.7	15.4	52.5	65.1	32.6
Master's degree-Higher Diploma	1.9	2.7	0.7	2.0	4.0	0.7	1.8	2.5	0.7
Doctorate	0.3	0.3	0.3	0.8	1.5	0.3	0.2	0.1	0.2
Total	100	100	100	100	100	100	100	100	100

Source: (The General Authority for Statistics, 2021).

Meanwhile, while unemployment occurs in all educational specialisations, it is concentrated more highly in the humanities (23.5%) than in business and management (19.1%), compared to educational sciences and teacher preparation (15.8 %) Table 2.

Table 2 PERCENTAGE DISTRIBUTION OF SAUDI UNEMPLOYED PERSONS (15 +) HOLDERS OF DIPLOMA OR HIGHER BY SEX AND EDUCATIONAL SPECIALIZATION (%).			
Educational Specialization	Saudi		
	Total	Female	Male
Educational sciences and teacher preparation	15.8	19.0	7.8
Arts	0.5	0.7	0.0
Humanities	23.5	26.2	16.6
Behavioural Social Sciences	6.4	8.0	2.3
Press and media	1.1	0.9	1.8
Business and management	19.1	16.8	24.9
Law	2.4	2.1	3.1
Life sciences {natural}	5.0	5.5	3.6
physics	3.3	3.5	2.6
Mathematics and statistics	1.9	2.3	1.0
Computer and Information Technology	8.0	7.0	10.4
Engineering and engineering professions	4.1	0.3	14.0
Manufacturing and production operations	0.4	0.4	0.3
Architecture and Building	1.1	0.3	3.0
Veterinary	0.0	0.0	0.0
Agriculture	0.1	0.0	0.3
Health	4.2	3.8	5.0
Personal services	1.2	1.3	0.8
Social Service	1.4	1.7	0.6

Transport services	0.2	0.0	0.6
Environment protection	0.1	0.1	0.3
Security services	0.3	0.0	0.9
Total	100	100	100
Source: (The General Authority for Statistics 2021).			

The issue of unemployment needs innovative solutions to achieve the goals of the SV2030. The second axis of the vision, A Thriving Economy, includes strategic goals that focus on increasing employment rates and improving educational outcomes.

Therefore, the SV2030 supports the adoption of new and innovative initiatives that contribute to achieving its goals in an integrative, non-traditional, efficient, and effective manner. These are reflected in achieving qualitative growth in the educational outputs of universities by providing students with future skills that they will need to succeed in their careers.

At present, Saudi Arabian universities are missing the inputs described in the ‘Quality of Instruction and Relevance of Instruction to 21st-century skills, Peer and Mentoring Networks’ (Evidence for Policy Design, 2019).

This notably encourages universities to shift towards a competency-based education system which generally aims to improve educational outcomes and bridge the gap between work and learning. These aims are achieved by linking students to the external environment, using a flexible system that provides them with immediate feedback and multiple opportunities to master what is learned. Through this process, students acquire comprehensive knowledge and skills that help them succeed in their personal and professional lives.

Making structural changes in national higher education institutions and policies in Saudi Arabia is necessary. The imbalance between the education system and the labour market requires the adoption of several new measures (UNESCO, 2018).

A Competency-Based Education System in Universities

Although the concept of competence has a long history in education and training, there is no global consensus on its definition. In general, the concept of competence has moved from a narrow view of what a person can perform to a deeper view that measures the extent to which a person possesses and develops a complex mixture of skills, knowledge, behaviours, and values, creating the integral competency that emerges within the context of work performance (Bourgonje & Tromp, 2011). Specifically, competence is the demonstrated ability to apply knowledge, skills, and behaviours to complete work activities to a specified level of performance, as expected in a real-world work environment (Daru & Yasser, 2020).

Educational competencies are the skills, knowledge, and attitudes that help students become successful, creative, confident learners who are active and knowledgeable citizens. These competencies include a combination of attitudes, skills, and knowledge that students develop and apply to succeed in learning, life, and work. In a competency-based education system, students demonstrate mastery of all required competencies to earn credit or graduate rather than earning credit-based competency based on seat time. Competency-based education also implies a flexible system that focuses on the student and provides continuous feedback and multiple opportunities to perfect what students learn through real life situations and experiences, which are transformed into skills.

METHODS

In this study, a descriptive and analytical approach relevant to the study objectives was used. This approach aimed to provide a deeper understanding of the reality and development of the issue by clearly describing its elements and determining the factors for its practice (Obeidat et al., 2020). Moreover, the conditions to draw valuable conclusions that promote the development of the field of study were analysed.

The study procedure began by reviewing and analysing the theoretical background to achieve the study objectives. For data collection, the focus group method was employed, where a training program was implemented and titled 'Future Skills and Competency-Based Education'. The program was aimed at faculty members because they are responsible for implementing best practices in teaching and assisting students with the learning process. After announcing the program to all faculty members across two Saudi universities, the total number of participants exceeded 300. It focused on the characteristics of graduates and learning outcomes and linked them to the labour market; participants were asked about the relationship between competency-based education and future skills required in the labour market. Further, they were asked why universities should transfer to the competency-based education system.

A questionnaire was sent to 80 experts to determine the difficulties facing universities in Saudi Arabia. They were selected based on their leadership experiences and focused on those who had work experience in the participating entities in the Suggested Model, from Universities, ETEC, The Human Resources Development Fund (HADAF), and employers. Of the initial group, 30 agreed to participate. All participants had a minimum of 15 years of experience. They were prepared to investigate compatibility between university outcomes and the needs of the labour market towards shifting to the competency-based education system in creating a suggested model. The study experts provided their opinions about a suggested model of a competency-based education system in universities to fill the Saudi Arabian labour market gap as proposed by the study.

RESULTS

Most participants in the focus groups agreed that there is a complementary relationship between competency-based education and the skills required in the workplace. Many of them also agreed about the importance of a competency-based education system for improving university outcomes by linking them to the labour market, and the possibility of universities in the Saudi environment shifting towards its implementation.

The expert group presented opinions on why universities should transfer to the competency-based education system: 86.2% agreed that the Kingdom's Vision 2030 stipulates continuing to invest in education and training, providing its students with the knowledge and future skills necessary for future jobs. It was necessary to strengthen efforts to harmonize the outcomes of the educational system with labour market needs.

In the same group, 82.8% agreed that the Kingdom's Vision 2030 aims to reduce the unemployment rate to 7% because of the negative effects unemployment has on comprehensive development, building society, and the national economy. This has a direct relationship to living standards, and that the competency-based education system contributes to reducing unemployment and nationalizing jobs through enhancing the ability of graduates to compete locally.

Regarding the effect of the competency-based education system, 86.2% of the expert group agreed that the system had proven its efficiency and effectiveness in various countries and within many universities globally by providing students with skills, knowledge, experiences, and attitudes that help them to be successful learners. Further, the system had developed creative and confident individuals, and active citizens, and helped them to achieve success in their personal and professional lives.

Table 3 shows the high degree of approval among the expert participants regarding the difficulties facing Saudi Arabian universities in shifting towards a competency-based education system and developing their outputs in line with the labour market. This reveals a serious issue in Saudi Arabian universities.

Table 3 THE DIFFICULTIES FACED BY UNIVERSITIES IN SAUDI ARABIA IN SHIFTING TOWARDS A COMPETENCY-BASED EDUCATION SYSTEM						
Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Rates (%)
Difficulties are related to the quality of academic programmes and develop them in line with the labour market needs.	0%	0%	0%	51.7%	48.3%	89.6
Difficulties related to developing the assessment plan and tools	0%	6.9%	3.4%	41.4%	48.3%	86
Difficulties are related to communicating with the employment sectors and their participation in developing curricula and training graduates.	0%	3.4%	3.4%	55.2%	37.9%	85
Difficulties are related to the Saudi Arabian labour market.	0%	10.4%	3.4%	48.3%	37.9%	82.6
Difficulties are related to financial and material.	0%	13.8%	0%	55.2%	31%	80.6
Difficulties related to academic leaders' conviction of the competency-based education system, and the feasibility of shifting towards it.	0%	17.2%	13.8%	44.8%	24.2%	75.2
Difficulties related to the conviction of faculty members of the need to develop the outputs of universities and linking them to the labour market's needs.	0%	24.1%	20.7%	27.6%	27.6%	71.6

The study experts were asked about the suggested model of competency-based education systems in universities to fill the gap in the Saudi Arabian labour market. Regarding the possibility of applying the suggested model, 89.7% agreed that application was necessary.

DISCUSSION

This study examined the role of the competency-based education system in developing the required outputs of Saudi Arabia universities. These outputs contribute to job localisation, linking them to the labour market's needs to reduce unemployment in achieving the Saudi Vision 2030.

The study findings revealed that most focus group participants agreed that there is a complementary relationship between competency-based education and the skills required for the

workplace. Many of them also agreed about the importance of a competency-based education system in improving university outcomes by linking them to the labour market, and the possibility of universities in the Saudi environment shifting towards its implementation (Evidence for Policy Design, 2019; UNESCO, 2018; Graduate Survey Department, 2016).

A minority did not agree on this either because they were not convinced of improving the universities outcomes to match the needs of the labour market, or because they feared facing difficulties such as increasing the teaching load and applying different assessments tools. This may be due to the faculty members' resistance to change (Tagg, 2012).

The expert participants shared their opinions on why universities should transfer to the competency-based education system. The majority agreed that the Kingdom's Vision 2030 stipulates continuing to invest in education and training, providing its students with the knowledge and future skills necessary for future jobs, and strengthening efforts to harmonize the outcomes of the educational system with labour market needs. They agreed that the Kingdom's Vision 2030 aims to reduce the unemployment rate because of its adverse effects on comprehensive development, building society, the national economy, and affecting living standards. Additionally, they agreed that the competency-based education system contributes to reducing unemployment and nationalizing jobs by enhancing the ability of graduates to compete locally, which is possible based on the experiences of other countries (Yamada, 2017). While the minority did not agree on this because they were not convinced to improve the universities outcomes to match the needs of the labour market, they insisted that the role of universities must be focused on providing context for human development (Kromydas, 2017).

The expert participants broadly agreed that the competency-based education system had proven its efficiency and effectiveness in various countries and many universities globally in providing students with skills, knowledge, experiences, and attitudes that help them to be successful learners, creative and confident individuals, and active citizens, and achieve overall success in their lives and professionalism.

Table III depicted the rates of the difficulties faced by universities. Items 1-5 were classified as very high-level difficulties, while items 6 and 7 were classified as high-level difficulties. However, as the literature suggests, there are difficulties in the quality of academic programs in that their curricula constitute the most critical difficulties in developing their outcomes in line with the labour market to become effective in localizing jobs. This is also the case regarding the relationship between the employment sectors and universities in Saudi Arabia. (Alhousseini, 2016; DePauw, 2019; Issa, 2017; UNESCO, 2018).

A Suggested Model of a Competency-Based Education System in Universities to Fill the Gap in the Saudi Arabian Labour Market

Based on the results of the study, a suggested model of competency-based education in universities to fill the gap in the Saudi Arabian labour market is proposed. This is based on the premise which includes the SV2030, the integration between the country's public bodies, and rational investment in human resources Figure 1.

First, this premise has a philosophical basis in that integration is a societal and developmental requirement. Second, it has an economic basis due to its rational investment in human capital created through improving the outcomes of universities, its matching the needs of the labour market, and its localization of jobs and unemployment reduction. Third, it has a functional basis as the role of universities in education must improve.

The model has numerous objectives. The universities' outcomes need to be developed by linking them to the labour market needs. Localisation of jobs is needed and can be achieved by enhancing graduate employability skills. Universities also need to adopt the competency-based education system to provide graduates with 21st-century skills.

The model requires a plan that clarifies the role of departments, academic programs, and faculty members in which universities adopt a competency-based education system. A training plan is required to disseminate competency-based education concepts and tools. It involves approving new academic programs and developing those which exist to align with the competency-based education system. Further, it requires the exchange of experiences between universities. A partnership agreement between universities and the HADAF, represented by TAQAT, is needed to link graduates with employers and employers in the public and private sectors. Feedback will need to be provided to universities, along with the needs of the labour market and the graduate competencies required.

Regarding model requirements, universities need to work towards achieving the goals of the SV2030 and follow up on how outcomes are being employed; they must also receive feedback from the labour market. Simultaneously, universities should adopt the competency-based education system and adapt its systems towards its gradual implementation, following a specific and incremental plan. Both new and existing academic programs need to be developed and aligned to the vision, ensuring that graduates possess the 21st-century skills required in the labour market. The NCAAA is responsible for ensuring that academic program accreditation standards do not conflict with the concept of educational competencies. Rather, they should contribute to achieving the goals of accreditation, with increased attention to feedback on academic programs by the labour market, to judge their effectiveness. The SAQF enhances the adoption of competencies which contribute to bridging the gap between universities' outcomes and the labour market. The TAQAT links universities' outcomes to the labour market and provides them with feedback on their outcomes and the needs of the labour market. Feedback is needed between model components towards achieving its objectives.

The model proposes three stages of implementation in its model. First, adoption is needed. Universities should adopt a competency-based education system by developing its strategies, with a plan to build and develop academic programs and develop competencies of graduates required in the labour market, in partnership with the TAQAT. Second, the model proposes experimentation. This stage would allow the implementation of a competency-based education system in one academic program for each college to serve as a model for other programs. Third, the model suggests generalisation, where competency-based education system will be implemented in all Saudi Arabian university academic programmes. Statistical information reports on unemployment rates, the localisation of jobs, and employee feedback would be crucial to gain insights to ascertain the success of the implemented model.

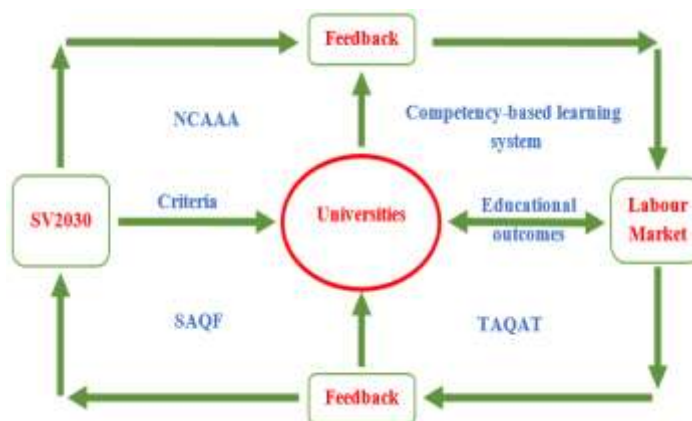


FIGURE 1

A SUGGESTED MODEL OF A COMPETENCY-BASED EDUCATION SYSTEM IN UNIVERSITIES TO FILL THE GAP IN THE SAUDI ARABIAN LABOUR MARKET

CONCLUSION

The study focused on the role of the competency-based education system in developing the universities outcomes in the KSA by linking outcomes to the labour market needs and contributing to the localization of jobs. This goal is derived from the SV2030, which aims to reduce the unemployment rate to 7%. Further, there is a complementary relationship between competency-based education and the skills required in the workplace. The competency-based education system can improve university outcomes by linking them to the labour market, and the possibility of universities in the Saudi environment shifting towards its implementation. Nevertheless, the difficulties facing Saudi Arabian universities in shifting towards a competency-based education system and developing their outputs in line with the labour market cannot be ignored. The study data was collected through 300 faculty members and 30 experts, and this sample is therefore limited. Further studies need to be conducted in different fields employing a variety of methods and larger samples to verify the results of the current study.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the author.

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