

استخدام مدخل التعلم القائم على التخطيط المستند إلى تعدد معايير صناعة القرار فى تدشين ميثاق للممارسات لضمان جودة التعليم العالى

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الكلمات المفتاحية : -التعليم العالى -ميثاق الممارسات MCDM

مستخلص البحث

يعد التخطيط بداية التطلع إلى مستقبل أفضل . لهذا فالعديد من الدراسات المعنية بنظام التعليم العالى أكدت على أهمية التخطيط الاستراتيجى فى صياغة نموذج جديد للجامعة متمشياً مع المعايير العالمية للتصنيف الأكاديمى . ومن ثم تركز الدراسة الحالية على تدشين معالم ميثاق للممارسات داخل الجامعة قائم على مدخل مدخل التعلم القائم على التخطيط المستند إلى تعدد معايير صناعة القرار .

ولتأصيل ذلك تسعى الدراسة الحالية للإجابة على التساؤلات التالية :-

- 1-لماذا نظام التعليم العالى الحالى بحاجة إلى ميثاق للممارسات ؟
- 2-إلى أى مدى تؤثر الجودة الأكاديمية على الجامعات ؟
- 3-ما المقصود بمدخل التعلم القائم على التخطيط المستند إلى تعدد معايير صناعة القرار ؟
- 4-ما المعايير والمؤشرات التى يتأسس عليها ميثاق الممارسات الجامعى ؟

منهجية الدراسة

تستخدم الدراسة الحالية مدخل التعلم القائم على التخطيط المستند إلى تعدد معايير صناعة القرار ، وتكنيك أفضل الممارسات للإجابة على الأسئلة السابقة .

نتائج الدراسة

- 1-الجامعة بحاجة إلى ميثاق للممارسات لإنجاز خبرات التعلم
- 2-تعتمد خبرات التعلم على جودة الممارسات داخل الجامعة
- 3-تسهم المتابعة الإستراتيجية في تحقيق ميثاق الممارسات داخل الجامعة

**Using education based planning multi -
criteria decision making (MCDM)
approach in establishing the university code
of practice for the higher education quality
assurance**

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Key words: MCDM -Higher education -code of practice

Abstract

Planning means looking for the better future, many studies in the higher education system assured that; the strategic planning for building new form of the university according to the recent global academic rankings criteria. This study concentrates on establishing code of practice in the university based on the strategic planning_multi -criteria decision making (MCDM) approach.

So, the study answers on the forthcoming questions: -

- Why the higher education system needs code of practice?
- What is the impact of the academic quality up on the universities?
- What is education based planning multi -criteria decision making (MCDM) approach?
- What are the criteria and indicators which the university code of practice based on?

Methodology

The study uses the strategic planning multi -criteria decision making (MCDM) approach and the best practice technique for building the criteria and indicators of the code of practice.

Findings

- The university needs code of practice for fulfilling the learning experiences
- The learning experiences depend on the quality of practice
- The strategic monitoring achieves the university code of practice

Introduction

Indeed, the situation is changed. All the academic practices update its systems according to two paths. The first path related to the planning approach and the second one concerning with the code of practice.

So, there is a strong relationship between the two paths. In the university world, what we need is the best practice of the university regulations and standards. The code of practice will help universities in achieving these best practices. Thus, this study discusses the code of practice in the academic society based on the planning approach.

In order to articulate code of practice for the university, one can utilize from the previous experiences.

Hence there are three elements for the study: -

The first element: The background of the academic experience in articulating the code of practice

The second element: the impact of the academic quality up on universities

The third element: The code of practice criteria based on the (Multi -criteria decision making (MCDM) approach.

The study methodology

The study uses the strategic planning multi -criteria decision making (MCDM) approach in its futuristic aspect and the best practice technique for building the criteria, indicators, and practices for articulating the university code of practice.

MCDM characteristics

- The model is flexible and typically aims to select the most appropriate solution (W. Sutherland 2011, P432).
- It expresses the integrated strategies of life cycles and value chain (Jen-Hung 2009, PP209: 211).
- MCDM techniques assume that a decision may impact a variety of parameters, henceforth referred to as “impact-factors. The impact of the decision on impact factors with measurable criteria is assigned through appropriate techniques using a uniform scale. (BOSE 2003, PP31, 32).

The study goals

This study aims to: -

Establish a code of practice for the higher education system.

So, to achieve this aim, the study will:

- 1- Determine the institutions endeavor in articulating the code of practice
- 2- The impact of the academic quality up on the institutions
- 3-The implementation of the education based planning multi-criteria decision making (MCDM) approach
- 4-Articulating the criteria and indicators of the code of practice through the strategic planning approach and best practice technique

1- Institutions endeavor in articulating the code of practice

Lots of institutions keen to articulate its own code of practice and assured in achieving it in the real life. The University of Jordan puts its own code of practice for quality assurance in 2014. The most important two points in this code of practice are the fairness and diversity which the university puts the academic criteria to achieve them. The university put plan for the students and staff based on the

intended learning outcomes of the learning competences process and university activities. (Trawana 2014, PP 19: 23). The business institution of JLL in USA (Jones Lang Lasalle) puts the code of business ethics from 2001 so far. The main principal of this institution is " nothing is harder to win or easier to lose than a company's reputation for integrity". (JLL 2016, P6).

The University of Birmingham in London builds its own code of practice on taught program and module assessment. The code of practice applies to all undergraduate, graduate and postgraduate taught program, post graduate research program and including distance learning. The code of practice is based on the principal academic units and the university regulations. The code of practice interests in the conduct of assessment which consists of both external and internal assessment. (Module assessment 2016).

The Leicester University in Britain put code of practice for managing higher education provision with others. The purpose of this code is to ensure that the university is able to assure the quality of academic standards and learning opportunities of awards and credit granted in its name and has in place appropriate governance arrangements for learning opportunities not provided by the university. The code of practice concentrates on the risk based framework and the indicative risk levels through the process of risk assessment. (University of Leicester 2016).

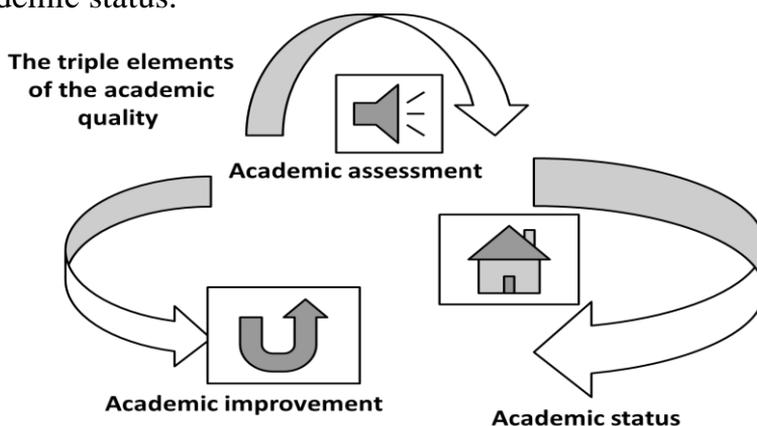
The Flowserve Corporation has established its own code of practice for the workplace based on trust building, ethics and probity. The Flowserve code includes the criteria of safety and security preservation. For instance weapons prevention in the workplace, harassment and discrimination prohibition. The core values of its code are building good personalities for right thinking and good decisions. (Flowserve 2012, PP12:25).

The University of Edinburgh code of practice aims to foster a vibrant, successful and interactive research community. It provides guidance and practical advice for both supervisors and research students. The code insists on the academic excellence so the university puts equality and diversity strategy as guiding principles in policy and practice. (University of Edinburgh2016, 9:16)

2-The impact of the academic quality up on universities

The possibility of achieving the purpose of improving the academic excellence is the academic quality. The academic quality top-flight educational programs that provide value to the higher education system are essential. So, without a central focus on quality system, university improvement is an empty promise. (American Council on education 2012, PP12: 14).

In order to achieve the academic quality, there are three elements should put into the experts' underestimations: the academic assessment, the academic improvement and the academic status.



The academic assessment: This highlights the university internal and external strengths, weakness, opportunities and

threats. It also demonstrates the points that need to improve and helps in putting improvement action plans.

The academic improvement: This element involves in the impact of the worldwide academic quality and the ability to enhance the university accordingly. So, in order to fulfilling this target, the institution should adopt its own criteria based on actual practices.

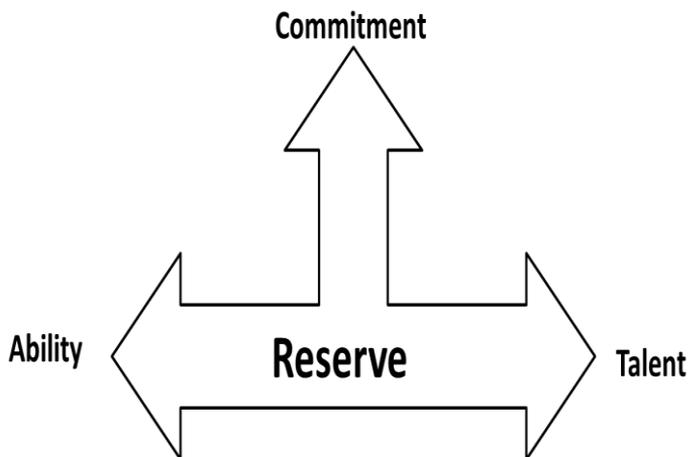
The academic status: this related to the university position and its ranking among regional and global universities. Also, this element represents the impact and the value added of the university up on its community and up on the global community as well.

The philosophy of the academic quality: -

The academic quality keens with university involvement in the quality process. The main question is how universities take part in the quality assurance process? And what are the best strategies of positive involvement? (ESIB 2004, P 3). But the academic quality especially in the universities ties by the policy –making in education. There is a relationship between the academic quality and the policy orientation and systems. (Husen1984, P7).

This for maintaining of three things:

- Reserve of commitment
- Reserve of ability
- Reserve of talent



To fulfilling these three goals, the key word is the unexpected performance or the distinguished performance for both academic individual and collective performance.

The academic quality assurance shapes the future through six pillars;

- 1\6 design multiple indicators
- 2\6 consider ranking requirements
- 3\6 estimate future communication needs
- 4\6 avoid pitfalls
- 5\6 engage opportunities
- 6\6 gain market share

The following academic quality assurance matrix will show how these pillars work: -

The pillars	The strategy	The tools	The steps	The outcomes
1\6 design multiple indicators	Working with grouping indicators	Six sigma tools	-Relate cause & effect -Improve quality -Reduce cost	Sustainable quality improvement
2\6 consider ranking requirements	Understanding the global ranking and the criteria of world class university	Benchmark tools & modeling	-Based on the multiple indicators -Assess the current state -Find the gaps -Mind the gaps	-Putting action plans for achieving the world class university -Close the gap between the actual measurements and the original

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The pillars	The strategy	The tools	The steps	The outcomes
				goals and objectives.
3\6 estimate future communication needs	Reform based on international communication needs	Expectations Need analysis	-Understanding the university global requirements -New interests with the international academic ranking and the policies behind it -Reform based	-Renew the academic communication approaches -continual improvement of the academic quality

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The pillars	The strategy	The tools	The steps	The outcomes
			practices	
4\6 avoid pitfalls	Conversion to quality	-Gap analysis -Risk analysis	-Quality control to detect the defects -implement the quality assurance process to overcome the pitfalls	New action plans in order to avoid challenges and pitfalls -Corrective actions
5\6 engage opportunities	Self-initiative towards applying the	Opportunity matrix	-identify the academic requirements	Opportunity creation & open opportunities

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The pillars	The strategy	The tools	The steps	The outcomes
	quality culture		-apply the opportunity matrix -creating new approaches for investing the opportunities	
6\6 gain market share	Competitive strategy	Competitive advantage	-Mapping strategic groups in the academic work -International market sharing -determining the strategic	-building state of maturity -framework for exposure to international competition

The pillars	The strategy	The tools	The steps	The outcomes
			market context	

3-Education based planning multi -criteria decision making (MCDM) approach

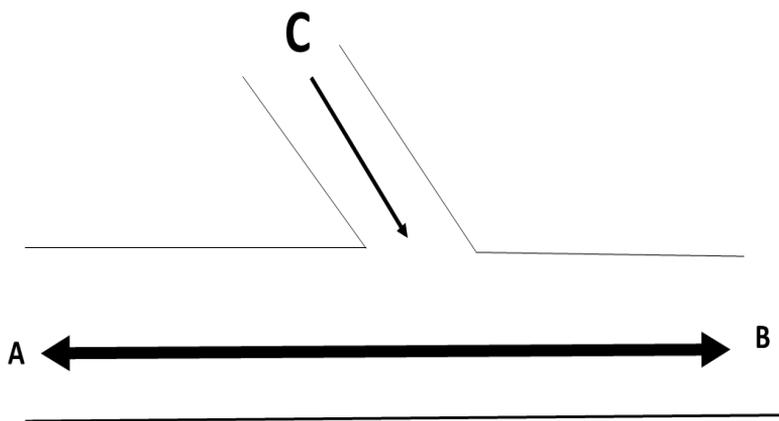
The future of education is based on the planning processes. So, the planning approaches are based on learning experiences and the educational improvement plans. The idea of planning based on the paths or tracks towards the future. Furthermore, the probabilities which shaping this future. Hence, education based planning approach concerns with the tracks which education can move for achieving its goals. Basically, there are three paths for implementing education based planning approach;

Path (A): It represents the current state which means analyzing the gaps and assigning the strengths and the opportunities.

Path (B): It represents the future state which the institution aims to shape better future.

Path (C): it represents the side track which means the process of corrective actions that you can take for adapt your steps towards the future and fulfilling your goals (B).

So, the move from (C) to (A) is different from the move from (A) to (C) because it demands certain modified actions.



Planning paths

Higher Education system cannot improve its institutions without planning' "data bank" which based on the institution experiences. Basically, educational planning concerns with the origin of the institution and its reform plans experiences. (UNESCO1995, P30).

Policy making is the first step in any planning cycle to enlarge the range of choices.

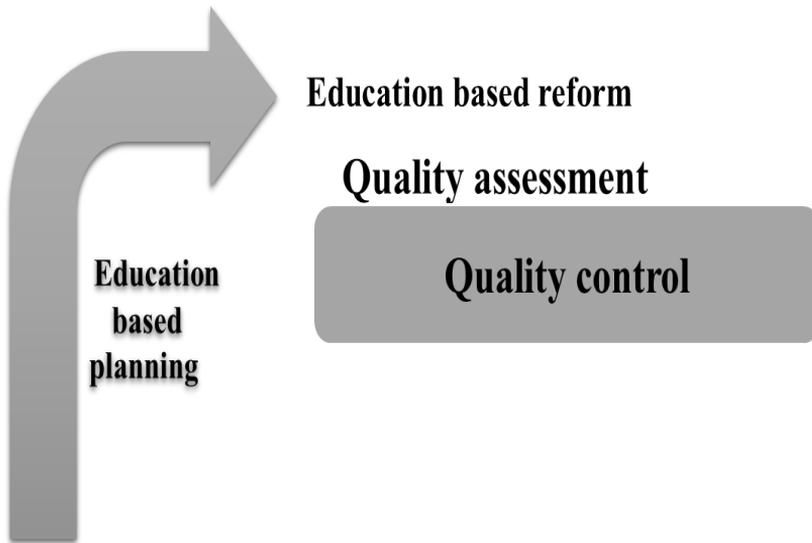
Besides, the types of practice in the higher education institutions determines how the efficiency of the planning methods and the strategies through moving into the triple tracks. (Prennan, John 1988, 171).

Accordingly, leading universities demands cultivating excellence and developing the necessary norms. The process of how internalize the standards inside the university is the main target for the global higher education system. (Ibid, PP174, 175).

Furthermore, quality assessment or quality improvement demands the possibility to provide the audits with the external environment needs and the user requirements based on the recommended standards. Also, it demands the statistical products and processes. So, the quality assessment based on the planning processes and outlooks. The quality assessment has impact upon institutional management and decision -making processes. (Brennan, John 1997, PP210:213).

Education based reform approach increases the ability to apply the education based planning approach. It also helps in putting best practices code to guarantee the reformation results. So, one can understand that the education based planning approach needs the institutional quality control, quality assessment and education based reform approach.

The integration among these three dimensions consists the education based planning approach.



The education based planning multi -criteria decision making (MCDM) approach for the higher education reform and innovation

Planning not only for describe the current context but to see the future as well. So, putting norms for the higher education system is a matter of doing things right in the future through education based planning approach. Many problems face the higher education administration as a result of the lake either in articulating a code of conduct or the lack of implementing the regulations inside the university system. (Proper, Eve 2012, P49). The process in strategic planning starts with defining the organizational purpose, creating strategic objectives, strategies framework and finally the action plans development to ensure the organizational objectives are met. (Mohamad, Daud 2015, P 1).

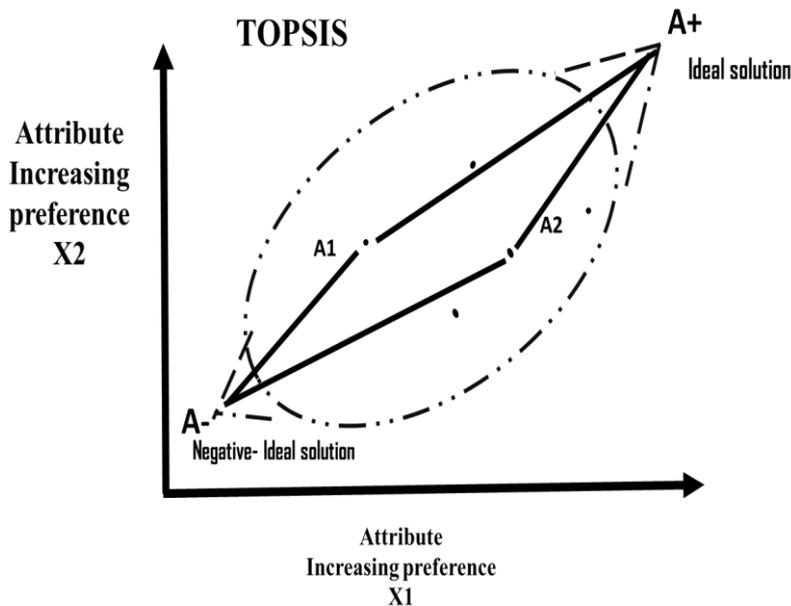
Besides, there is a strong relationship between the strategic planning and the decision-making process. Multi-criteria decision making (MCDM) refers to making choice of the best alternative from among a finite set of decision alternatives in terms of multiple, usually conflicting criteria.

The **TOPSIS** method for decision making reflects this idea. The TOPSIS stands for technique for preference by similarity to the ideal solution. It means the ability to select among the multiple alternatives to reach to the better solution that comes up with the real context. TOPSIS was initially presented by Hwang and Yoon in 1980. It uses to measure distance from ideal or nadir points. The idea of TOPSIS is to obtain performance data for certain alternatives over certain criteria.

Also, to develop a set of importance weights for each of the criteria by identify the ideal alternative (extreme performance on each criterion) and identify the nadir

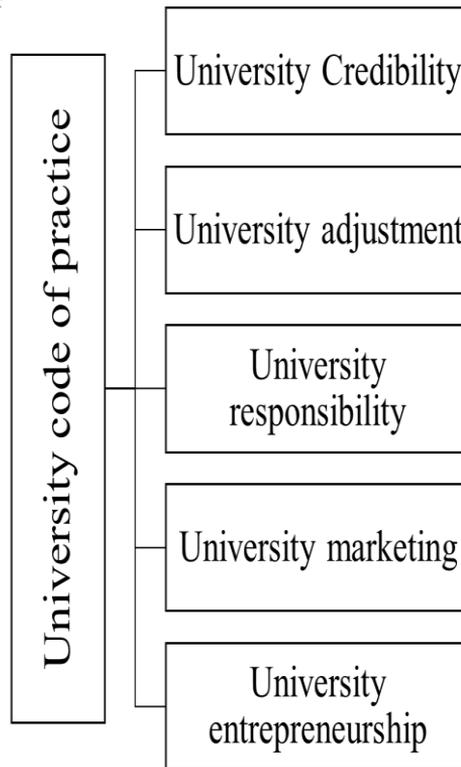
alternative (reverse extreme performance on each criterion. (Olson 2004, P 6).

Hence, the process of reform in the higher education system starts through reaching the best solution for the problem. The TOPSIS method will help in choose alternative which has the shortest distance from the ideal solution and the farthest from the negative -ideal solution. To apply the TOPSIS method; the institution firstly needs to evaluate alternatives in terms of criteria. Secondly, apply one of the normative multiple criteria analysis methods, thirdly, accept one alternative as optimal (preferred). If the final solution is not accepted collect new data and information and go to the next iteration of multiple criteria optimization. (Roszkowska 2010, P201).



4-University code of practice for the higher education quality assurance system

University code of practice will increase the institution's capacity building and improves its performance and competency. So, the forthcoming code of practice consists of four criteria with its indicators and practices. These criteria are: university credibility, university adjustment, university responsibility, university marketing, and university entrepreneurship.



The following table shows the guidelines of the university code of practice

Guidelines	Criteria	Indicators	Best practices
Guideline (1)	1.University Credibility	1.1 university empowerment 1.2 Transnational competence 1.3 Taskforce commitment	1.1.1 university databank 1.1.2 preserving cultural identity 1.2.1 experiences' transferable 1.2.2 performance assessment 1.3.1 excellence framework 1.3.2 The accuracy of taskforce members
Guideline (2)	2.University adjustment	2.1Qualificatins framework 2.2 achievement assessment	2.1.1 measuring KPI (Key performance indicators) 2.1.2 measuring internal and external processes 2.2.1 Meeting the customer requirements 2.2.2 Balanced score card

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Guidelines	Criteria	Indicators	Best practices findings (BSC)
Guideline (3)	3.University responsibility	3.1 strategic planning 3.2 development requirements 3.3 academic quality practices	3.1.1 mainstream action plans 3.1.2 front -end planning 3.2.1 community services 3.2.2 customer satisfaction 3.3.1 follow up policies 3.3.2 university ranking

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Guidelines	Criteria	Indicators	Best practices
Guideline (4)	4. university marketing	4.1 Market growth 4.2 market share	4.1.1 study market (high, low) 4.1.2 Meet market requirements & specification 4.1.3 understanding the global standards 4.2.1 measure the competitive advantage 4.2.3 maintaining market share 4.2.4 improve profitability and revenues
Guideline (5)	5.university	5.1 mindful of market	5.1.1 understanding the

Guidelines	Criteria	Indicators	Best practices
	entrepreneurship	realities 5.2 Competitive advantage 5.3 contributions and value added	market projects' needs 5.1.2 reducing risks & challenges 5.1.3 developing realistic vision 5.2.1 Establishing the productive university 5.2.2 analyze the five forces & PESTLE matrices 5.2.3 Dealing with the potential entrants 5.3.1 Focus on organizational performance 5.3.2 improvement to accountability and transparency

Using education based planning multi -criteria decision making (MCDM) approach in establishing the university code of practice for the higher education quality assurance

Guidelines	Criteria	Indicators	Best practices
			5.3.3 effective impact evaluations methods

The university code of practice

1. University Credibility

1.1 university empowerment

1.1.1 University databank

1.1.2 Preserving cultural identity

1.2 Transnational competence

1.2.1 Experiences' transferable

1.2.2 Performance assessment

1.3 Taskforce commitment

1.3.1 Excellence framework

1.3.2 The accuracy of taskforce members

2. University adjustment

- 2.1 Qualifications framework
 - 2.1.1 Measuring KPI (Key performance indicators)
 - 2.1.2 Measuring internal and external processes
- 2.2 achievement assessment
 - 2.2.1 Meeting the customer requirements
 - 2.2.2 Balanced score card findings (BSC)

- 3. University responsibility
 - 3.1 strategic planning
 - 3.1.1 Mainstream action plans
 - 3.1.2 Front -end planning
 - 3.2 development requirements
 - 3.2.1 Community services
 - 3.2.2 Customer satisfaction
 - 3.3 academic quality practices
 - 3.3.1 Follow up policies
 - 3.3.2 University ranking
- 4. University marketing
 - 4.1 Market growth
 - 4.1.1 Study market (high, low)
 - 4.1.2 Meet market requirements & specification
 - 4.1.3 Understanding the global standards
 - 4.2 market share
 - 4.2.1 Measure the competitive advantage
 - 4.2.2 Changing processes through market change
 - 4.2.3 Maintaining market share
 - 4.2.4 Improve profitability and revenues

- 5. University entrepreneurship
 - 5.1 Mindful of market realities
 - 5.1.1 Understanding the market projects' needs
 - 5.1.2 Reducing risks & challenges
 - 5.1.3 Developing realistic vision

5.2 Competitive advantage

5.2.1 Establishing the productive university

5.2.2 Analyze the five forces & PESTLE matrices

5.2.3 Dealing with the potential entrants

5.3 contributions and value added

5.3.1 Focus on organizational performance

5.3.2 Improvement to accountability and transparency

5.3.3 Effective impact evaluations methods

Conclusion

This study put a code of practice for the university performance which based on the education based planning multi -criteria decision making (MCDM) approach \ and best practice technique. This code of practice will achieve its criteria, indicators, and practices through the academic quality assurance six pillars;

Design multiple indicators, consider ranking requirements, estimate future communication needs, avoid pitfalls, engage opportunities and gain market share. So, the university code of practice consists of five criteria with its indicators and practices; university credibility, university adjustment, university responsibility, university marketing, and university entrepreneurship.

Recommendations

This study recommends with the following points: -

1-Developing multi -models of code of practice for the higher education system according to the internal and external contexts.

2-Student's commitments with the code of practice and the following up of their behaviors in the real situations.

3-Using the education based planning for shaping the future helps in choosing the better decision among the multiplicity of the alternatives.

4-Conducting many research projects which interested in the university problems and shed the light of the negative case studies.

5-Articulating new policies in the higher education system encourage on the flexibility and concentrating on the reform and innovation.

6-Creating new activities guided by the market share and the market growth in the university and meet the requirements of the sustainable development.

7-Increasing the degree of awareness with the importance of practices and the applications in the universities instead of the theoretical impressions.

8-Articulating new scales for measuring the key performance indicators according to the international key performance criteria.

9-Adopting new approaches and techniques for encourage the university 'members up on knowledge production and management.

10-Enhancing the university equipment and infrastructures for building new laboratories, libraries and safety networks (forums and sites).

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