

# PORTER`S VALUE CHAIN - DEDAN KIMATHI UNIVERSITY OF TECHNOLOGY AS A COMPETITIVE UNIVERSITY (DEKUT)

**PETER ONYONJE OSIAKO**

»«

## INTRODUCTION

I am employee (Assistant Lecturer) at the **Dedan Kimathi University of Technology, in Kenya**. In January 2019, Dedan Kimathi University of Technology (DeKUT) was voted the University of Choice in Kenya. This was based on the percentage of students aspiring to proceed for higher education selecting it as first choice. The ranking was a result of an in-depth assessment done by the Kenya Universities and Colleges Central Placement Service (KUCCPS). This is a great achievement for the university given that the country has over seventy (70) universities for prospective scholars to choose. The position places this university in a front competitive position enabling it enjoy many advantages that come with preference by most students as the University of Choice. The competitive advantages to be enjoyed include:

- More students being admitted in the university
- Revenue being realized from fees paid by students
- Economies of scale in utilization of university assets and other resources
- More funding from the government and other collaborators because of higher student numbers
- Stronger bargaining power between the university and its publics

This favourable competitive position of DeKUT can possibly be attributed to the integration of factors and processes working together to enable the university out-compete others in Kenya. This work attempts to analyse these factors basing on Porter's Value Chain Model.

It is important to consider the different elements of a value chain, firstly, to ensure consistency – and secondly, it may be that through linking separate activities more effectively than competitors, a firm can gain a competitive advantage.

The organisation's value chain does not exist in isolation. There will be direct links between the inbound logistics of the firm and the outbound logistics of its suppliers, for example. An understanding of the value system and how the organisation's value chain fits in to it will therefore aid in the strategic planning process.

A value network is a web of relationships that generates economic value and other benefits through complex dynamic exchanges between two or more individuals, groups or organisations.

Tangible value exchanges - involve all exchanges of goods, services or revenue, including all transactions involving contracts and invoices, return receipt of orders, request for proposals, confirmations or payment.

Intangible knowledge exchanges - include strategic information, planning knowledge, process knowledge, technical know-how, collaborative design, policy development, etc.

## **USING THE PORTER'S VALUE CHAIN ANALYSIS TO UNDERSTAND DEKUT**

Considering Michael Porter model, it can be said that DeKUT follows several key steps within its value chain that together create value for their customers, in this case, employers of graduates.

The primary activities focus on: admitting the right quality of students, converting them into competent graduates, and delivering the expected labour force to the job market. The support activities play an auxiliary role in primary activities. The university seems to have efficiently combined these activities to produce superior training and outstanding graduates. Therefore, customers, who in this case are students and their parents/guardian are willing to do all they can to secure admission into this university.

The goal of the University being to achieve the highest possible performance of students in education by producing admirable graduates within the guidelines and restrictions set forth by the ministry of education and other partner stakeholders in higher education.

### **THE UNIVERSITY'S PRIMARY ACTIVITIES AT DEKUT**

#### **Inbound Logistics**

Robust admission procedure for new students and recruitment of new staff based purely on merit – this ensures that the students are teachable and can end up being competent graduates after the training process. Students are the raw materials for the university as a system. For one to pursue a course in any of the focus areas in the university, they must meet the basic requirements set forth in the university admission criteria.

The university top management team (portfolio managers, analysts) – tasked with making the key infrastructural, curriculum development and delivery decisions. They determine the institution's competitive advantage and pursue activities that go towards reaching those goals.

For this university, focus is on pursuing a strategy of differentiation by majoring in science and technological courses and being consistent in them. The university has avoided venturing in many and all fields of training like many others do. Instead it has focused on Engineering, ICT, Food Technology, Health Sciences, Applied Sciences, and Business Studies.

To ensure credibility of courses offered at DeKUT, all Academic Programmes are accredited by both local and international accrediting bodies. Locally, the University's Programmes have been accredited by the Regulatory Body, Commission for University Education, and respective Professional Bodies where they apply.

Considering value for time through effective application of the trimester system of study, DeKUT ensures that her students complete their courses within the shortest time possible while not compromising quality. For instance, students taking four year's course graduate within three and half years while those taking five year's course graduate within four and half years. Apart from the trimester system, time advantage is a privilege that DeKUT students get through ensuring that the semesters and learning is not interrupted by strikes and any issues that can be solved amicably between the students and management as well as the management, staff and the government. As the Vice

Chancellor likes to say, "Time is a valuable resource that once wasted can never be recovered and proper utilization of time sets you apart."

In the spirit of one family, in 2014, the University established an Endowment Fund (DeKUTEF) with the goal of supporting talented and financially disadvantaged students to access and successfully complete the highly competitive programmes offered by the University through provision of scholarships and bursaries.

### **Operations**

(Departmental heads and supervising personnel and lecturers) – tasked with ensuring the teaching and learning operations are in line with the guidelines set forth and are at the best execution cost. Execution of programmes is such that education is not just about academic knowledge and skills but holistic development of a person. Through involvement in various co – curricular and extra- curricular activities within the university; academic tours, sports, community service, clubs, environmental programs, outdoor excursions and Mt. Kenya expeditions, which help students become the best they can be by developing their intellectual, emotional, social, physical, artistic, creative and spiritual potentials. DeKUT has a number of vibrant student exchange programmes which are in line with the University’s vision of producing globally competitive graduates and building international linkages to grow her profile as a global premier university of technology. Have signed memoranda of understanding with various universities globally for exchange of students. These include the International Association for the Exchange of Students for Technical Experience (IAESTE) and the Association for the International Exchange of Students in Economics and Commerce (AIESEC).

### **Outbound Logistics**

The university endeavours to maintain contacts with all potential employers of its graduates through the Industrial Liaison and community linkages department at the University. Students are also taken through a series of career talks to prepare them for job application and interview procedures. Student at DeKUT are well exposed to the industry and labour market situation in advance of their graduation. This is done through regular industrial visits, industrial attachments and internship organised by the university. This prepares the graduates well for the labour market and they are able to know places to apply for jobs and to quickly adapt to their work when they get employed.

### **Marketing and sales**

(programmes communication and marketing department) – Strategies to enhance visibility and target appropriate students for intake and employers of graduates - such as advertising, promotion. This concerns the university department responsible for sourcing for students’ placement after graduation through advertisements and other channels. The Marketing and Public Relations Department is dynamic and has come up with a university-public-industry collaborative programme dubbed “Climb to Educate”. It is meant to enhance the university’s presence in the competitive market as a preferred university for all its publics. DeKUT continuously establishes partnerships and collaborations towards enriching the training offered to her students. International collaborators include Japan, Germany, France, Canada and Hungary. Students and staff benefit through these collaborations by working together in exchange of technology and training towards enhancing education quality. More collaborations and partnerships <https://dekut.dkut.ac.ke/index.php/about-dekut/s5-accordion-menu/collaborations->

[and-partnerships](#). The university also has presence in the social media through Facebook, Instagram and Tweeter. It also makes presence in local trade shows and exhibitions.

### **Service**

By the Alumni association, Industrial Liaison and community linkages department at the University (client relationship management) – these are responsible for providing all the touch points to the students and other publics. The university organized follow-ups on its graduates through these departments and association. This is aimed at building customer loyalty through a kind of “customer service” by finding out how well graduates fit-in the jobs they secure in their relevant industries.

### **Support activities at DeKUT**

Technological Development – At DeKUT, there are laboratories where students interact with the most modern machines and technologies with the help of their lecturers and the lab technicians to the library that provides competitive, adequate and relevant information services in support of learning, teaching and research. An innovation incubation Centre labelled “DeHUB” is operational, having been launched by the Minister in-charge of Communication in the Country, in the year 2016. Learning from this, several students have featured with great innovations developed using these technologies and others have challenged the existing technologies through research. To facilitate teaching in the Institute of Tourism And Hospitality Management, the University established a conservancy that is a tourist attraction as well as an avenue for the students to practice service in the Tourism and Hospitality Industry. There is free and unlimited WiFi in the university. For future, a multi-million state-of-the art Science and a technology Park is under construction in DeKUT.

Human Resources Management – to be able to find and retain the highest level of talent at the university, lecturers and technologists are employed only if they fit in the specific field of teaching. Emphasis has been on lecturers to only teach courses they did at undergraduate and Master’s Level. There are many training programs conducted for employees in a setting of a work culture which keeps its staff motivated and efficient. Periodical pedagogy training and refresher course has been made mandatory for all teaching staff, while non-teaching staff are equally deployed on merit.

Infrastructure – the university has state of the art lecture and seminar rooms, library with digital capabilities, sufficient staff offices and vehicles for transportation. The process of constructing a one-of-its kind Science Park at the University is on-going, funded by the government and African Development Bank. This also includes departments like management, finance, and legal, present in the university which are required to keep the university operational. It is complemented with good customer service provided by the dedicated team of employees.

Procurement - in procuring its material, equipment and services that facilitate learning, the university strives to strictly adhere to the provisions of the Public Procurement and Asset Disposal Act 2015, whose full title is "An Act of Parliament to give effect to Article 227 of the Constitution; to provide procedures for efficient public procurement and for assets disposal by public entities; and for connected purposes". This has ensured efficiency and accountability in procurement practices in the university, contributing to the general competitiveness.

## **ANALYSIS OF HOW DEKUT IMPROVED THE ITS PROCESSES IN THE CHAIN**

It appears that in taking into account its value chain, the university considered its value proposition, or what sets it apart from its competitors (in this case, it is the special focus in Science and Technology). But improving a value chain for the sake of improvement should not be the end goal, therefore the institution decided why it wanted to improve its value chain in the context of its competitive advantage to differentiate itself among its peers. Michael Porter identified two common competitive advantage strategies as, low cost provider and specialization/differentiation of product or service.

Low-cost provision – basing on value chain analysis, the university focuses on costs and how it can reduce those costs, mainly through competitive bidding and tendering during procurement.

Specialization – under this value chain analysis, it focuses on the activities that create a unique product or differentiation in degree programmes offered at the university.

Based on the drivers of uniqueness Porter identified, the university focuses on its policies and decisions and learn to differentiate itself in terms of performance. By focusing on these drivers, the two primary activities of the primary activities with all the identified support activities, manage to produce graduates that achieve the university's differentiated competitive advantage.

## **BENEFITS OF THE MODEL**

Proponents suggest that the value chain model has many benefits, including:

It provides a generic framework to analyse both the behaviour of costs as well as the existing and potential sources of differentiation.

Activities that are not adding value can be identified and addressed – for example, improved so they do add value or outsourced if this is not possible.

It emphasises the importance of (re)grouping functions into activities to produce, market, deliver and support products, to think about relationships between activities and to link the value chain to the understanding of an organisation's competitive position.

It makes it clear that an organisation is multifaceted and that its underlying activities need to be analysed to understand its overall competitive position.

It is an attempt to overcome the limitations of portfolio planning in multidivisional organisations. Rather than assuming that SBUs should act independently, Porter used his Value Chain analysis to identify synergies or shared activities between them and to provide a tool to focus on the whole rather than on the parts.

## **Criticisms raised against the Model**

The main criticisms of Porter's Value Chain model are as follows:

It is more suited to a manufacturing environment and can be difficult to apply to a service provider.

The Value Chain model was intended as a quantitative analysis. However, this is time consuming since it often requires recalibrating the accounting system to allocate costs to individual activities.

## CONCLUSION

Value chain analysis is a handy management tool which identifies the activities that go into creating a superior product or service that is highly valued by customers. The outcome of creating this highly valued product is that customers are willing to pay a premium, which exceeds its costs, thereby delivering higher profit.

The usefulness of this model created by Michael Porter is mostly seen in its ability to breakdown work product into various activity groups to strategically focus the management on what are beneficial activities, and what creates value.

It also concentrates a company to determine a vision utilizing a competitive advantage strategy which will drive future products and services. Supporting activities are further validated in the process, creating an understanding that these sometimes overlooked activities are integral to the value chain and value proposition for a company.

The concept of helps to understand and segregate the useful (which help in gaining a competitive edge) and wasteful activities (which hamper market lead) accompanying each step during the product development process. It also explains that if a value is added during each step, the overall value of the product gets enhanced thus helping in achieving greater profit margins.

## BIBLIOGRAPHY

- Ahmed, N. U., & Sharma, S. K. (2006). Porter's value chain model for assessing the impact of the internet for environmental gains. *International Journal of Management and Enterprise Development*, 3(3), 278-295.
- Allee, V. (2008). Value network analysis and value conversion of tangible and intangible assets. *Journal of intellectual capital*, 9(1), 5-24.
- Ghemawat, Pankaj (Spring 2002). "Competition and Business Strategy in Historical Perspective". *Business History Review*. Harvard Business Review. [SSRN 264528](#)
- Holsapple, C. W., & Singh, M. (2001). The knowledge chain model: activities for competitiveness. *Expert systems with applications*, 20(1), 77-98.
- McPhee, W., & Wheeler, D. (2006). Making the case for the added-value chain. *Strategy & Leadership*, 34(4), 39-46.
- Olhager, J. (2012). The role of decoupling points in value chain management. In *Modelling value* (pp. 37-47). Physica-Verlag HD.
- Porter, M. E., "Competitive Advantage". 1985, Ch. 1, pp 11-15. The Free Press. New York.
- Ramaswamy, V. (2009). Co-creation of value—towards an expanded paradigm of value creation. *Marketing Review St. Gallen*, 26(6), 11-17
- Rowe, Mason, Dickel, Mann, Mockler; "Strategic Management: a methodological approach". 4th Edition, 1994. Addison-Wesley. Reading Mass.
- Walters, D., & Lancaster, G. (2000). Implementing value strategy through the value chain. *Management Decision*, 38(3), 160-178.