CONCEPTUAL STRATEGY MAP IMPLEMENTATION FOR HIGHER EDUCATION INSTITUTION

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Abstract. This paper presents unconventional perception of value creation process to Higher Education Institutions (HEIs). Service value chain concepts in conjunction with the closest stakeholders for HEIs management have been chosen as the perspective to look at the university strategy. This attitude can be explained through the university's internationalisation inevitability together with its core values upholders – employees. These two components are considered to be a stimulus to enhance the significance of balancing employees' performance together with the strategy mechanism for deducing the progress. The paper concludes with a suggested conceptual Strategy Map for Vilnius Gediminas Technical University which distinguishes the synergy between employees and internationalisation process within the university.

Keywords: strategy map, value creation, higher education institution, stakeholder, internationalisation.

JEL classification: I23, G32, L25.

1. Introduction

One of the most complex and vague things defined in higher education – the concept of value. Traditionally value is described as simple interaction between benefits that a customer or in HE case (students / university / government etc.) seeks in a transaction and the cost of obtaining those benefits. Mostly for all businesses today value is created by so called 'brand value' which highly depends on the market's verification of the long-term prospect and cash flow of the business. This means that business has constant need to grasp the market and be on its 'pulse'that is pivotal to successful value creation.

In the sense of higher education, value is not created through pricing, sales or price-to-earnings ratios which basically generates economic value. Universities are much more complicated than value creation by accurately managing financial instruments without a real understanding of its mission and principles (Thornton 2004). This narrow notion by its simplicity and technicality ignores the fundamental source of value creation in the university, particularly those who produce, manage and store knowledge (whole academia, administrative stuff etc.).

Nevertheless, the key question regarding value creation matter in terms of higher education still remains. Value is the benefit obtained from an institution's assets by its stakeholders. Academic and administrative staff, students and other related sides receives value through experiencing the institution's programmes, services and knowledge assets. The opportunity for enabling these recourses is the majority of academic and administrative processes and the media through which they are experienced. This is based on the idea of universities ability to import business oriented organizational structures in HEIs management were 'values' could be more easily expressible in monetary terms. Therefore, higher education industry feel pressed into a corner to maintain activities that drive up value and all processes within it. Consequently, the transformation of institutions from higher learning into competitive enterprises started (Lee 2008). Thus to create competitive advantage in terms of transnational higher education, universities started to rethink the idea of what are the main components in value creation process for university and what kind of strategy mapping process can be used in order to enhance value creation process. One of the most effective ways was to look deeper into the concepts of 'Service Value Chain'.

2. Concept of service value chain in HEIs

The 'value chain' concept was first introduced by Michael Porter (1985) for businesses where he described value chain as value – adding activities with the crucial attention to its pricing strategy and cost structure. The other authors (Stonehouse,

Snowdon 2007; Rathee, Rajain 2013) defined the value chain as variety of actions which are recuired to bring the notion from concept, through the intermediate process stages, introduce to customers, and final rendition after use. The concept of strategic alignment is seen in various ways (Kim 2008; Zavadskas *et. al.* 2010; Zavadskas *et. al.* 2011. However, primary model has lack of meaning for service oriented organizations as HEIs because the concept do not imply the auxiliary practices of organization that inevitably arise in higher education management. These activities recognized as human recourse management, internationalization process, infrastructure, technology and other support components that helps to generate the final outcome too. Therefore, the need to focus on the service value chain for the HEIs to provide quality education increases.

Many authors (Van der Merwe *et al.* 2004; Makkar *et al.* 2008; Pathak, Pathak 2010; Hutaibat 2011) have provided specific models of service value chain for the education industry by distinguishing different aspects of most influential components which were crucial in one or another way. Here will be represented three newest models with its explanations of potential usage.

According to Makkar *et al.* (2008), the value needs to be created by the service provider and user together. The main idea behind this explanation is the need of co-creation of value, because this gives an opportunity not to mismatch in the delivery system. Consequently, the value – co-creation model for services where introduced:
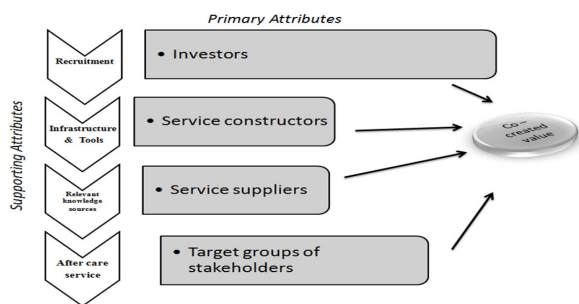

Fig. 1. Value co-creation model for services (Source: Combined and adapted from Makkar *et al.* 2008)

This model is adapted in order to understand the role of higher education as a major component for the successful development in socio-economic environment as a whole. The value chain analysis firstly constructed by investors who are willing to invest. Then the process is taken by internal stakeholders as service product designers (usually faculty or program creators), all service provider staff and facilities and the infrastructure and supporting utilities. Finally, the outcome is given

to the target market of customers, citizens or people and those companies, communities or agencies that they belong to.

In accordance with Pathak V. and Pathak K. (2010) education industry is consistantly moving from a 'high-contact, low-equipment service, to a low-contact, equipment-based service'. What means that the traditional interaction between student and teacher seen as crucial component of value creation cannot be the stand point 'for profit' and value creation anymore. The necessity to rearrange activities to drive up the cash flows as well as to control possible cost to maximise customer (student) and organizational profits leads to a closer evaluation of the front and bottom line performance into primary and support activities in the context of higher education institutions (Fig. 2.):
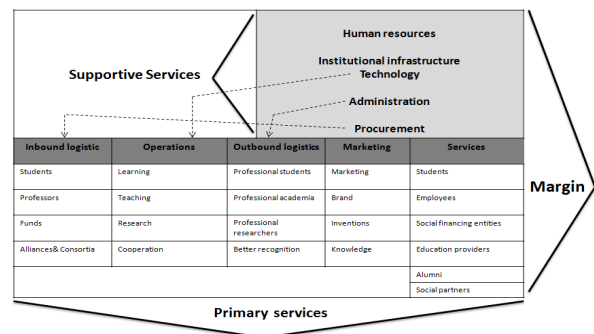

Fig. 2. Reconfigured higher education value chain (Source: Combined and adapted from Pathak, Pathak 2010)

The model explains the importance of support services and the changing connection between teaching and learning when in the physical presence there is lower level of contiguity. Significant importance is given to the technology as a generator of cost advantage and the technicality of marketing and sales services. Critical internal linkages and the understanding how it shifts is a core of reconfigured higher education value chain.

According to Khaled A. Hutaibat (2011) the value chain analysis helps to recognize the critical success factors as staff, funding and time that is widely applicable in academic disciplines. He is arguing that many different value chain models arise from the generic strategy chosen. This is critical in order to develop inimitable control of actions and getting better understanding the strategic and financial context of an institution (Fig. 3).

In the model two areas as research and teaching activities in higher education where identified. Academic environment as a context of pressure among research and teaching explains that these activities are strongly related to major

strategic forces and can be dramatically influenced by lack of financial support and tension to generate value in subjects where retention arises.
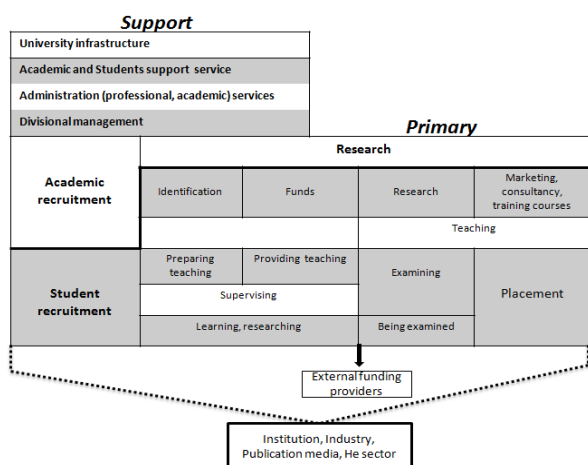

Fig. 3. Value chain for Higher Education (Source: Adapted from Hutaibat 2011)

3. University perspective in value creation process

Recently the discussions about the quality of universities have become an urgent, because of the changes in economy expectations and understanding of scholarship. Those essential driven forces became crucial and pushed universities to become more entrepreneurial as an inevitable part of internationalized and emerged environment. Therefore, there is a need to understand an integrative role of university that comprises all the volatility towards HEIs under social and economic circumstances (Lee 2008). There are some common emphases that help to understand where universities need to focus the most. First of all, recognition of the public toward management reforms that determine accountability in requiring university attainments. Secondly, reconsideration of educational goals by focusing as much on learning and teaching outcomes as performance by itself. Finally, distinguishing learning for results to learning for knowledge and future development.

Moreover, there are different ways to classify the major aspects of altering the face of the university. The most accurately described the changes required university management was Philip Altbach (1998). He distinguished main roles and challenges that the higher education institutions have been facing in international scope. The ideas where expressed so reasonably, that can be adapted to the current situation as well. All in all, the key concept includes four main university management poles: changes in the university students, professoriate, academic

administration and management of internationalization process.

Changes in the composition of students originate occurred because of diversity in choices of HEIs. Students are influenced by different social classes and backgrounds. Thus, the variety of universities in national and international level opened its doors to international students by increasing competition in the market. Although today there can be seen the greatest proportion of students that studying in higher education institutions as never before, there is a rise in student consumerism (Brentnall 2013). Students around the world paying deeper attention of what actual benefit can be obtained for successful employment. Therefore the demand of useful courses significantly changed. The other important aspect is the role of academic staff. The decrease in government subsidiaries made negative influence in full-time job positions and made popular part-time positions. The academic staff became more vulnerable in deficiency of financial support instruments. Furthermore, the latest trend is that the most creative and the best specialists began less frequently attracted to academic careers (Sauermann *et al.* 2012). On the other hand, there where immense increase in diversity of academic professionals in terms of gender, ethnicity, race and age.

Changes in academic administration explain that not necessarily professional managers can be derived from the academic background, but mostly all of them seek to work in academic administration. Thus, even most of academic managers have been professors by themselves; they rarely come back to lecturing. This can be related with increased power of university administrators and higher possibilities to make decisions and impact on HEIs performance as a whole.

The final aspect is internationalization. The emphasis of internationalization from institutional, national and international level to the position of higher education has changed due to the need to make essential alterations in value creation processes (Hutaibat 2011). Knowledge became internationally reachable and linkages among HEIs world widely expanded. The fact that internationalization is basically inevitable in our society and is usually represented as positive aspect of globalization even if it comes with the need of greater financial resources is essential.

4. International dimension in HEIs

Increased commercialization and cross-border competition have changed the value traditionally assumed to HEIs to value generated through

international partnerships and cooperation. The emphasis of internationalisation from institutional, national and international level to the position of higher education has grown as never before due to the need to make essential alterations in value creation process. In accordance with Leonardo Flach and Lisandra Flach (2010) the essence of internationalisation in educational system are universities that are able to work as 'unique and specialized network' agents. They claim that despite the high influence from government due to financial support for research and other functions, the universities are main players in generating networks towards research institutions globally. Such inducements also enable the exchange in human resources as well as usage of best management practises world widely. All those rational reasons of internationalisation are affected by the trends of collaboration and market-driven environment in order to obtain more beneficial outcomes. Therefore, a must to take into consideration the rationales of internationalization as part of higher education policy and reality becomes relevant.

The rationales for internationalisation usually constructed and highly depended of the role and influence of the potential stakeholders (institutions; faculty; government in international, national and regional level). All those groups have an exceptional point of view and variety of priorities with respect to internationalisation aspect that makes it even harder to find the consensus among the interest of the different stakeholders. Thus, when the authors (De Wit 2009; Vincent-Lancrin, Pfotenhauer 2012 etc.) and society trying to define the concept of internationalisation there is a need to answer the question of what are the reasons of internationalising HEIs at all. According to Hans de Wit (2010) rationales of internationalisation usually do not explain the meaning of internationalising HEIs. Therefore, he distinguished four broad categories of rationales:

- Political rationales – national security, technical assistance, foreign policy, national and regional identity.
- Economic rationales – growth and competitiveness, national education demand, financial incentives.
- Social and cultural rationales – play in creating an intercultural understanding and an intercultural competence for the students, faculty and their research.
- Academic rationales – teaching and services, institution building, the improvement of the quality, extension of the academic horizon and international academic standards.

For the non-professional, internationalisation impact as an argument to generate more benefit for HEIs can be seen through the creation of an intellectual society. Wile from the economist position, internationalisation that influences HEIs can be seen as an additional product creator as a result of higher efficiency of qualified work power. HEIs incentives to implement new ways of distributing finances and enhancing quality of services for highly diversified body of stakeholders' shows that essence of successful improvements in HEIs depend on its management capabilities. Good governance of universities became one of the most favourable arguments due to efficiency in organizational strategies and quality of HEIs management choices. In a result of this tendency, the need to understand stakeholders' role in HEIs management and how it affects internationalisation process becomes relevant.

5. Stakeholders role in HEIs

Within the broad concept (Franch, Martini, Buffa 2010) stakeholders in a business world are usually categorized into primary and secondary. The primary stakeholders are those who are directly affected by organizational performance and have great interest into the actions it engages in solving potential problems. As such, the primary stakeholders are beneficiaries of performed activities in the scope of organization and directly affect the success of organization itself. While secondary stakeholders have indirect influence by playing intermediary role and also can have high impact on potential outcomes.

In the context of HEIs such a division of stakeholders would not be appropriate, because it is mostly oriented to business. Therefore, the categories of stakeholders' types were taken from the business oriented organizations and adapted to HEIs situation (Savage *et al.* 1991). Stakeholders were classified according to the *power* to make eligible decisions and interest to *cooperate* in order to fulfil mutually agreed expectations. According to those dimensions four types (Fig. 4.) of generic ways to distribute stakeholders where suggested.

The Supportive stakeholders for HEIs – government, boards of management and directors, sponsors and buffer organisations, presidents, rectors, directors (all senior administrators), faculty, administrative and support personnel, students, parents, social financing entities, education providers, service partners, insurance companies, non-profit communities and alumni. Theoretically, this type of stakeholders works towards organizational goals and actions. Practically, in the model above is showed that there are some situations, when stakeholders can change their position in the chain (e.g. employee

unions, local government, etc.). This type of stakeholders is the most favourable and all executives or managers would appreciate to have all stakeholders in this section.

The Marginal stakeholders for HEIs – chambers of commerce, banks, fund managers, analysts, foundations, institutional and programmatic accrediting bodies, professional associations, support entities, state financing agencies, research boards, research support bodies, fiscal authorities, social security and others state and federal financial agencies. This type of stakeholders is not directly powerful to organizational activities, but wants to cooperate. They are not actively or directly related with the issues organization have, but are highly motivated to cooperate. However, they are showing the potential for higher power too.
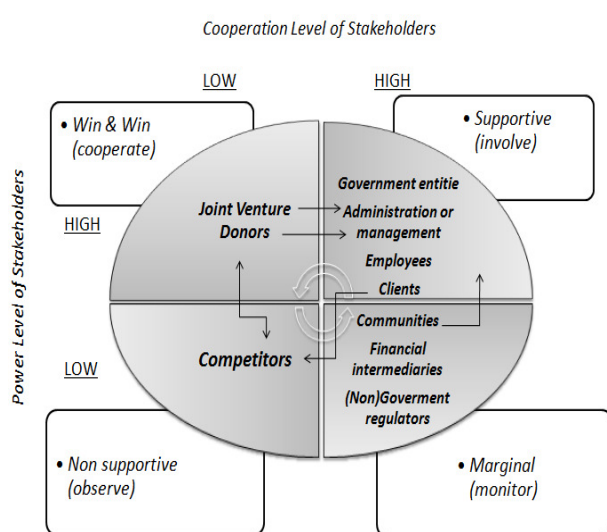

Fig. 4. Typology of the groups of stakeholders in HEIs (Source: compiled by authors based on insights from Savage *et al.* 1991; Maric 2013; Jongbloed *et al.* 2008; Alves *et al.* 2010).

The Non-supportive stakeholders – Direct: public and private higher education establishments. Potential: distance providers, new ventures, employee unions, company training programmes. This type of stakeholders has enough power to affect HEIs performance more in indirect way and low in cooperation level. However, nowadays it is crucial to cooperate with your competitors especially in HEIs management. So there are high incentives to shift those stakeholders in higher cooperation level.

Win & Win type of stakeholders – Individual (including directors, former students, industry, research boards and foundations), alliances & consortia, corporate, co-financiers of research and teaching services, research boards, research support bodies. Here, the executive faces stakeholders potential to cooperate is high (visible

from arrows represented in the model) and power to influence HEIs outcomes are high. However, not coincidentally two arrows are directed towards the supportive stakeholder and the other is pointed at the non-supportive stakeholder that indicate that Win & Win type of stakeholder could become either more or less supportive.

In the current situation, when significance to encourage partnerships (internally and externally) grows exponentially, the critical factor to distinguish appropriate stakeholders becomes essential. Indeed, stakeholders play vital roles as partners, donors and agents of change. Many different authors have written about stakeholders in private sector, but the public sector still lags some proper implications and ways to look deeper (Ipsos MORI 2009). Also, the majority of incentives to react in HEIs concerning this issue arises coincidently and do not provide complex of knowledge of the issue itself. With this understanding, the need to analyse higher education institutions not as a whole, but specifically by distinguishing most valuable components arises. Therefore, Vilnius Gediminas Technical University was chosen as a key study for the futher research.

6. Case of Vilnius Gediminas Technical University

Vilnius Gediminas Technical University (VGTU) is a State Higher Institution with technological profile in research and education. It is the biggest technical university in Vilnius, the capital of Lithuania. The university is focused on expectations of its students and requirements established by rapidly changing economic environment considerations, European integration processes and the development strategy of the Republic of Lithuania. Since the number of people who are willing to gain higher education in VGTU slightly decreasing (for fertility decline), the question of university strategic management becomes a challenge for governors in order to assure efficiency level as well as quality of institution performance (Čygas *et al.* 2013). On the other hand, every challenge – creates an opportunity and empowers additional incentives to respond accurately. In the sense of this notion, the necessity to evaluate in numerical ways the return to HEIs becomes crucial. There are free main perspectives to look into return to higher education: student, university and state. In the frame of this paper the university perspective was chosen.

Looking from VGTU university perspective, one of the most important goals of the university is strong community's international position. As a part of international activity the exchange of international experience gained by the students,

academics and administration staff allows university keep up with the latest technology and teaching practices and broaden similar experience within university (Čygas *et al.* 2013). Therefore, the conceptual Strategy Map which distinguishes the synergy between employees and internationalisation process within the university was suggested.

7. Conceptual Strategy Map for VGTU

Generally speaking, a Strategy Map is a visual representation of the strategy. It explains the strategy and helps to communicate it for the whole community. It visually clarifies how value going to be created by the organisation and what actually can drive positive changes (Kaplan, Norton 2004). Based on the annual report of VGTU for 2012 (Čygas *et al.* 2013), theoretical approach and the typology model of stakeholders distinguished above the Strategy Map for the university was suggested (Fig. 5).

Employees' performance and university internationalisation process were selected as the major value driven forces. This selection was made to support university perspective when the university is considered as the beneficiary of value created. It is worth to understand the logic behind the Strategy Map; therefore, the step by step aspects need to be taken as following:

- Firstly, it was crucial to create the whole conceptual Strategy Map including different fields and point of views through which value is generally created in university. It was made by using university mission, vision and explained strategic goals. This implemetation of exsisting information gave a perception of VGTU strategic plans; Then the internationalisation process as inevitable and growing part of value creation process was recognized and distinguished among other components;
- Afterwards the target stakeholders group of employees where selected as a perspective through which value generated would be visible for the university. According to the stakeholders typology model this group has the highest power to influence majority of decisions and has the highest willingness to cooperate with other stakeholder groups;
- Then finally, by using annual report of VGTU (Čygas *et al.* 2013) two dimentions where distinguished through all layers of the Strategy Map. This was made in order to show the synergy between employees and internationalisation process within the university.

The most important part in this Strategy Map is the perspective conserning value creation process and the choice of two dimentions that reasonably can be called as crucial components for international Higher Education environment.

8. Conclusions

Within changes in HEIs environment which was fostered by internationalisation process the need to understand what creates value for todays HEIs becomes relevant. It is obvious that internationalisation process and employess play higher role in HEIs strategic management than ever before. Therefore, employees' ability to quickly respond to these changes can be highly awarded in better efficiency, higher standards of service quality and more valuable overall performance.

The conceptual Strategy Map was created and suggested as a guideline for the Vilnius Gediminas Technical University. The main idea of this Strategy Map was to look in value creation process through university perspective when two preconditions according to the theoretical approach assumed as one of major value driven forces. The Strategy Map can be useful in order to make decisions concerning academic and non-academic staff performance, the quality of educational programmes and helps to examine the university position internationaly.

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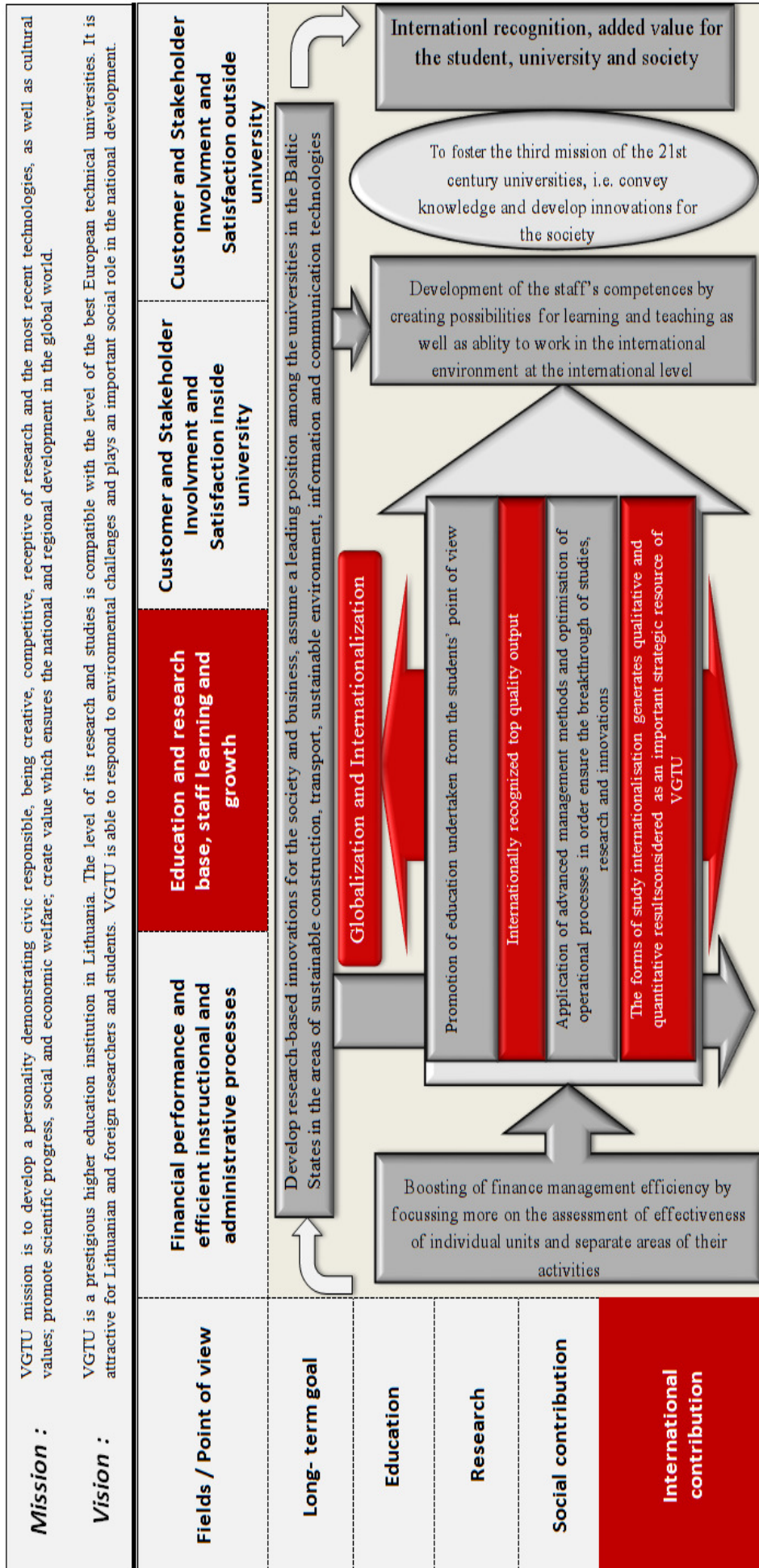
Fig. 5. VGTU Strategy map (Source: The strategic map was created by authors with supplements taken from VGTU Strategic Plan 2014–2020 as well as the insights from other authors and strategic maps – Kaplan, Norton (2004); Kyushu University QUEST-MAP (2008); UTM's Corporate Strategy Map (2012); Liverpool John Moores University (2012)

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