

The Role of the University as Key Actor in Managing the Dynamics of Academic Mobility - An Analysis of the Implementation of a Degree Training Programme in Interaction with Industrial Organizations -

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ABSTRACT

The operation of the market for technology know-how is strongly influenced by the increasing globalization demands. The dynamics of the globalized technology market increases the need for international experts. As a result of the changing state/market relationship, also the role of the university has changed. The university must rediscover its role as a competent promoter of academic mobility. University degree training programmes are a tool for functional managing of mobility dynamics. This paper aims to highlight the role of the university as key actor in facilitating functional academic mobility programmes as an innovative management tool for industrial organizations to meet the global organizational challenge that is presented by the intensifying competition for talents. This analysis is a case study approach. It discusses the training of Russian M.Sc. engineers at Lappeenranta University of Technology (LUT) for and in interaction with ABB Finland. The approach is based on the theory of the promoter model which is a concept that is introduced in innovation management research. The paper introduces the implementation of the promoter structure into the complex relationship between academic mobility and the functions of the university in the process of developing and managing functional mobility programmes for organizational resourcing purposes.

Keywords: Management of Academic Mobility, Key Actor, University, Organizations, Emerging Technology Markets, Finland

INTRODUCTION

Globalization, as defined by Philip G. Altbach, is a phenomenon that includes the broad, largely inevitable economic, technological, political, cultural, and scientific trends that directly affect higher education [1]. Globalization has changed the relations between state and market, and now also the university finds itself located in a different environment in which the state is becoming weaker and the market is becoming stronger [2]. To meet the increasing challenges posed by 21st century globalization, the concepts of knowledge, information and higher education must be reviewed and adapted. Manuel Castells states that the highest know-how, needed for scientific and technological development, is not equally dispersed around the world but concentrated in a few dozen research centres and milieus of innovation around the world, most of these in the United States, Western Europe and Japan. This means that highly qualified Russian, Indian and Chinese engineers could

continue their research only by linking up with these top centres. As a result, also highly skilled labour is increasingly globalized, and the competition for talents all over the world is growing because companies and governments need the talent and are ready to pay for it [3].

According to UNESCO, "the term 'academic mobility' is not intended to cover migration from one country to another. Academic mobility may be achieved within exchange programmes set up for this purpose, or individually ('free movers')" [4]. Academic mobility - and academic migration, as Altbach specifies the traffic of academics taking jobs in countries offering more attractive working facilities [1] - has always existed and is thus not a recent trend that is caused by modern globalization. In his approach to academic mobility, Gürüz defines that throughout history, academic mobility has always been an important aspect in the process of globalization. Only today, along with the rapid technological developments, the nature of student mobility in higher education has changed; it has become increasingly available and rapid [5]. The complex relationship between higher education and academic mobility has been extensively researched. However, little attention has been paid to the question how the dynamic interdependence between higher education and academic mobility could be exploited to address those modern trends of globalization that affect business.

GLOBAL BUSINESS TRENDS AND HR-CHALLENGES

"Business executives say that global trends have become increasingly important but few companies are addressing them successfully." [6].

Business executives were asked to rate the importance of 14 trends for global business during the next five years. According to the responses, and confirming also previous surveys, developments linked to economic growth in emerging markets and trends related to knowledge and technology are considered as utmost significant. The increasingly global nature of labour and talent markets is rated among the six top trends. This trend goes along with the increasing availability of knowledge and a faster pace of technological innovation. However, when it comes to taking active steps to address the impact of global trends, here the survey results show that a certain mismatch emerges from the answers. For example, as the increasingly availability of knowledge and the ability to exploit it, as well as the increasingly global nature of labour and talent markets are considered to have a very high and positive impact on the profitability of the company, there is a respectively 22% and 18% mismatch in terms of taking actions to address the impact

of these trends. Business executives at companies that have not yet acted on trends towards increasingly global labour and talent markets and towards the increasingly availability of knowledge and the ability to exploit it, mention among the top two reasons for inaction *a lack of skills or resources* to address these trends and also the fact that the company has higher strategic priorities. Based on the results of a UK survey on 'Recruitment, Retention and Turnover' [7] Wilson analyses that managing talent, international resourcing and the development of a strategic approach to cross-border skills movement are the most challenging issues to which companies need to respond rapidly [8]. In her research paper, Wilson argues that employee competencies such that support the successful working across borders must be underpinned by thorough selection procedures. The literature introduces numerous of concepts and approaches to support decision-making on HR issues and global talent managing in business. Not so often, however, there has been an attempt to analyze the role of the university as an institution that offers higher education and promotes academic mobility to address international resourcing questions in business.

METHOD

This analysis is a case study approach. It discusses the training of Russian M.Sc. engineers at Lappeenranta University of Technology (LUT), Finland, for and in interaction with ABB Finland, which is a Finnish, globally operating company in power and automation technologies. The approach is based on the theory of the *promotor model* which is a concept that is introduced in innovation management research. The promotor model is originally developed by Witte [9]. In his work, Witte shows that an innovation process can only be successful when there is a relationship of interaction and cooperation between the key actors using their specific organizational resources to promote the process of innovation. The promoter model has been developed later on with the introduction of two additional promoters that are called the process promoter and the relationship promoter [10], [11], [12], [13].

To manage the complexity of conflict forces - such as barriers that arise from a lack of skills or resources - that drive the process of innovation to get stuck, organizational resources are demanded. This paper introduces the implementation of the '*Troika-model*', as presented by Hauschildt and Kirchmann [12], into the complex relationship between academic mobility and the functions of the university in the process of developing and managing functional mobility programmes for organizational resourcing purposes. This study is based on statistical data that are obtained from the results of the mobility training programme and on interviews conducted by the author with company representatives and Russian programme students.

MOBILITY PROGRAMMES IN HIGHER EDUCATION: A TOOL FOR SUPPORTING ORGANIZATIONAL HR-RESOURCING SOLUTIONS

To support the Russia Agenda of the Finnish-Russian technology industry and its internationalization in the integrating European and Russian markets, The LUT Energy Institute of Lappeenranta University of Technology (LUT) has launched an extensive mobility programme. The programme implements international actor-oriented training programmes that are realized in cooperation with the Finnish energy industry to train Masters and Doctors of Russian origin for Finnish international companies. The programme is designed to purposefully promote functional cross-border academic mobility. The main focus of the programme is on proactive and

long term cooperation with industrial organizations operating in the energy field; it offers international companies a strategic channel and strategic options to recruit Russian skills for their cross-border business needs. Fig. 1 depicts the relationship between the common globalization trends on the energy market and the importance of mobility programmes as a tool for supporting innovative HR resourcing solutions.



Fig. 1: Mapping needs for organizational HR resourcing, strategy and competitiveness

THE RELATIONSHIP BETWEEN ACADEMIC MOBILITY AND EMPLOYABILITY

The promoting of academic mobility as a tool for supporting organizational HR resourcing solutions is an agile and dynamic process that, when not supported in active relationship by key actors, will not be successful in terms of considerably increased employability. The relationship between international students graduated from Finnish technical universities and employability in numbers of master's degrees and work placements is difficult to evaluate based on statistical evidence because such is not commonly available. In his column on the internationalization of universities and higher education Professor Raimo Kantola, Helsinki University of Technology, analyses the present situation of Finnish universities' internationalization [14]; his analyse is initiated by Olli-Pekka Kallasvuo's, President and Chief Executive Officer of Nokia, encouragement to promote the admission of international students to Finnish higher education institutions, and also by the occasional critique from industry that the level of internationalization of Finnish universities is not yet high enough. According to Kantola's research, of all 300 international students who took their master's degree in technology from Helsinki University of Technology between 2002 and 2006 only approximately half of them got work placement in Finland. The results prove that we have a mismatch here, because the majority of international graduates are clearly interested to stay and work in Finland. This mismatch can be explained by two factors: international graduate engineers do not know well enough Finland's industrial companies (with the exception of Nokia), and, on the other hand, Finnish companies do not yet fully exploit the possibility to recruit international skills who have graduated from Finnish universities. The author argues that there is a need for networking opportunities between international students and Finnish companies and a need for recruitment services that serve international students [14].

AN APPROACH TO MANAGE FUNCTIONAL ACADEMIC MOBILITY: THE UNIVERSITY AS KEY ACTOR

The authors of this article claim that managing innovative networking opportunities and recruitment services for international students and companies can be successful only if these are promoted based on a fundamental concept of cooperation between *technology* and *know-how*, and *organizational* key actors. The role of each promoter can be described by certain characteristics of the actors occupying the roles and also by the organizational recourses these actors use in promoting the innovation process [15]. An innovation process achieves overall efficiency if in a well coordinated relationship the promoter by power and the promoter by technology use their specific organizational potential and knowledge to overcome all conflict forces that could prevent the innovation process from sticking [13]. Hauschildt proves also that if the power-technology-promoter concept is expanded by the addition of a process promoter, such 'troika' of promoters makes the highest contribution to the innovation process in terms of effectiveness [12]. According to Koch, promoters by power are able to direct to the innovation process organizational support as while the support of the promoter by technology is, because his influence is based on professional expertise, argumentative by nature [15]. Koch defines the role of the process promoter as that of an actor who maintains communication relations between the power and technology promoters and acts as a communication hub to the other actors involved in the process.

The implementation of a conceptual promoter framework into the dynamics of managing academic mobility programmes in cooperation between the university and industry can increase the effectiveness of these mobility programmes in terms of an increased employability among graduate international students. In a conceptual approach to manage functional mobility, the university has both the technology expertise and know-how recourses as while the company has the organizational power to contribute to the success of mobility programmes. In 2005, LUT has initiated the development of its international master's degree programmes in energy technology towards the recruitment needs of ABB Finland and in cooperation with ABB Finland. Fig. 2 describes the troika-promoter model developed by J. Hauschildt and based on Witte, as implemented by ABB and LUT into an innovative cooperation model.

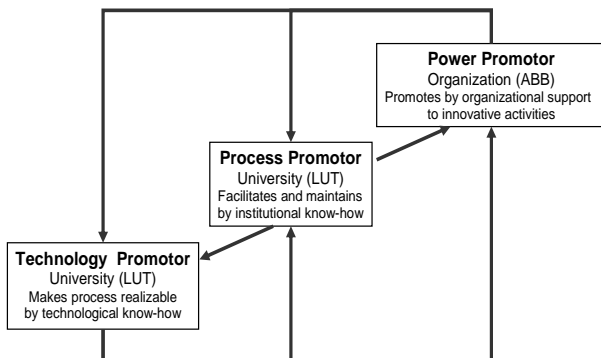


Fig. 2: The troika-promoter model based on the promoter concept developed by J. Hauschildt and based on Witte, as implemented by LUT and ABB in a innovative model of cooperation.

ABB as promoter by power has the organizational resources to support the realization of the innovative mobility process. LUT

has a dual role in the process as the promoter by technology in the academic realization of the mobility programme (higher education, master's theses), and as the promoter by know-how in the maintenance of communication relations between LUT and ABB (training and HR resources) and between LUT and its Russian partner universities involved in the mobility process (Russian student mobility, integration of educational programmes).

RESULTS

Since the mobility programme launch in 2006 LUT has admitted to the programme 39 Russian students who got their education in a special tailored training programme designed to address the HR needs of ABB. Of these 11 students carried out their M.Sc. project work for ABB and after graduation 15 were employed by ABB. ABB recruitment thus made up 38 per cent of the total intake over a three-year period. For the running academic year, 7 Russian students are employed by ABB for the Master's thesis project work, which is 35% of this year's total intake. The total number of work placements received in Finnish companies by Russian students graduated from the mobility programme varies annually from 70 to 80 per cent. In addition to the number of employed graduates and respective to the share of work placements, 20 to 10 per cent of the graduates continue their studies at LUT as postgraduate researchers. This means that the efficiency of the mobility flow, in total numbers of employability and researcher mobility, is here about 80 to 90 per cent.

The positive impact of the mobility programme has been multiple. Academic mobility has got new perspectives because academic engagement with industry has got new dimensions in the dynamics of managing academic mobility to be better exploited for organizational HR purposes. There has also been a steadily growing interest among Russian students towards the mobility programme because of the institutionalized concept that is behind the mobility programme and because of the expectation of mobility in terms of increased employability. This, in the long term, will have a positive impact on the internationalization, reputation and competitiveness of the university.

CONCLUSIONS

The dynamics of the globalizing technology market increases the need for international talents. This study analyses the role of the university as an institution that offers higher education and promotes academic mobility to address international resourcing questions in business. The study might have an impact on how the role of the university as historical and competent promoter of academic mobility is to be rediscovered. The university has the technology and know-how resources to act as key promoter in facilitating functional academic mobility programmes as an innovative management tool for industrial organizations to meet the global organizational challenge that is presented by the intensifying competition for talents.

The paper shows empirical evidence on the functionality of the promoter concept when integrated into the functions of the university as key actor in linking the process of managing academic mobility to organizational human resource requirements. However, the generalizability of the findings presented in this paper is limited because of the single approach in the case study. Long-term survey data are needed to study the causal relation of the implementation of functional mobility management to work placement and human resource solutions of industrial organizations. The concept framework introduced

and the results presented can be applied to managing other mobility projects in which are involved a network of actors.

DISCUSSION

This study aims to open up a new research forum and questions on how the university could more constructively address global business trends and business HR challenges by means of new mobility tools. It also might open a new field of research that will help universities and organizations to better understand the dynamics and challenges that are related to the integration of international graduates in the organization.

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