



The Third Mission of Central-Eastern European Regional Universities: Two Cases from Romania and Hungary

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Abstract. The presented research investigates the case of non-metropolitan, regional universities in Central-Eastern Europe to understand how their third mission strategy and practice contribute to the societal development of their localities. It intends to fill a gap in related contemporary research, which usually neglects such universities in this part of the EHEA. The investigation is built on a comparative case study design with non-random, purposive sampling on the cases of *Universitatea Transylvania din Braşov* (UTBv) in Braşov, Romania, and *Dunaújvárosi Egyetem* (DUE) in Dunaújváros, Hungary, and employs a mixed methodology of the convergent parallel design (parallel databases). The paper presents an outline of a doctoral research plan with an overview of its preliminary results, the author's related publications, the present state of the research, and its possible future directions.

Keywords: Central-Eastern Europe, regional universities, university third mission, comparative case study

1. Introduction

University¹ third mission (Compagnucci–Spigarelli, 2020) has been expanding and diversifying at an accelerated rate for some decades now (Benneworth et al., 2018; Frondizi et al., 2019; Farnell, 2020; Compagnucci–Spigarelli, 2020) as a result of various pressures on higher education institutions. Recently, the local variations of the 21st-century “grand challenges” and UNESCO’s Sustainable Development Goals on the international level (Trencher et al., 2014; Farnell, 2020), the substantial changes in national higher education policies (e.g. governance and funding model change), and the evolving expectations of a widening circle of university

1 In this paper, we use the terms *university* and *higher education institution* as synonyms meaning any kind of tertiary education providers.

stakeholders on the regional and local levels (Jongbloed et al., 2008; Carayannis et al., 2018; Goddard, 2018; Farnell, 2020) constitute a mix of external expectations that academic communities need to meet somehow. Reactive, proactive, or even pre-active ways of answering these challenges depend on a vast array of factors, many of which relate to the position of the higher education institution in its local-regional environment (Goddard, 2018; Kempton, 2019; Tijssen et al., 2021). This can be detected in the embeddedness of the university in the intricate societal network of its city and region (Jongbloed, et al. 2008; Goddard, 2018; Benneworth et al., 2018) or in what role it plays via its three missions in such subsequent regional policy concepts of the *learning region* (e.g. Kozma et al., 2015), the *quadruple and quintuple helix models* (e.g. Carayannis et al., 2018), the *regional innovation ecosystem* (e.g. Reichert, 2019; Tödtling et al., 2021; Tijssen et al., 2021), the *Smart City* (e.g. Farnell, 2020), or in the solution of local sustainability issues (Trencher et al., 2014; Compagnucci–Spigarelli, 2021).

Indeed, there has been widespread research on the contribution of European higher education institutions to the complex societal (economic, social, cultural, environmental, etc.) development of their localities and regions (most recently: Reichert, 2019; Maassen et al., 2019; Goldstein et al., 2019; Tödtling et al., 2021; Tijssen et al., 2021). However, they have mainly focused on metropolitan institutions and selected only a few Central-Eastern European cases into their samples. Thus, it seems to be worth conducting further research into the case of non-metropolitan, regional universities in Central-Eastern Europe to understand how their third mission strategy and practice contribute to the societal development of their localities.

Especially as on the higher education map of the EHEA, this macro-region stands out as uniquely positioned: its Humboldtian traditions and the Soviet influence on its national higher education systems inform not only the post-1990 neoliberal turns of governance but also the various challenges of its 21st-century present (Pukánszky–Németh, 1996; Polónyi, 2008; Kozma, 2012; Kwiek, 2012; Kováts–Temesi, 2018). For some higher education institutions, this historical background is further enriched by the special municipal heritage of communist economic and social policy: they are located in past *Stalin Towns* (Baranyai, 2016; European Commission, 2016). Therefore, they may be interesting cases for demonstrating how universities based in Central-Eastern European regional industrial cities help tackling the present societal challenges of their localities via their third mission practices. We have chosen two such institutions, *Universitatea Transilvania din Braşov* (UTBv) in Braşov, Romania, and *Dunaújvárosi Egyetem* (DUE) in Dunaújváros, Hungary.

Furthermore, this research problem needs a wider scope of investigation to include not only the major political and economic stakeholders of the selected cases but also the rich variety of their other societal partners (Benneworth et al., 2018). Thus, our

research could strengthen that stream in the literature which understands university third mission as one including community engagement (e.g. Benneworth et al., 2018; Maassen et al., 2019; Farnell, 2020) as opposed to the still dominant viewpoint of the *third mission* referring only to the technology and knowledge transfer collaborations of a university with its industrial partners (Compagnucci–Spigarelli, 2020).

2. The Third Mission of Higher Education Institutions

The concept of the *third mission* was born in the late 1980s (Clark, 1998) and has been gradually expanding since then. Especially in the aftermath of the 2008 global financial and economic crisis (Benneworth et al., 2018; Tijssen et al., 2021), since when the range and kind of such activities, the variety and degree of involvement of its participants, and the institutional changes it brings have diversified. From problem-solving applied research with contracted industrial partners (Clark, 1998), it has developed into a rich variety of institutionalized knowledge transfer activities with university's multilevel societal partners, among them the stabilization of its independent, patent-based income-generating practice. Moreover, as a result of the expansion of the knowledge economy and society, the range of university stakeholders has also been extended to include not only its local, regional, national, and international political and economic, then cultural, educational, and civic partners but also the natural environment and its sustainability. This is often described as the expansion of the knowledge triangle of the triple helix model (Etzkowitz–Leydesdorff, 1997; Leydesdorff, 2013) to the quadruple helix and the quintuple helix models (Carayannis–Campbell, 2012; Trencher et al., 2014; Carayannis et al., 2018).

Several systematic literature analyses have investigated the expansion of the understanding of the third mission, for example, Frondizi et al. (2019) and Compagnucci and Spigarelli (2020), but they all confirm that there is still no single, comprehensive, and widely accepted definition for the phenomenon. This is partly due to its complexity of intentions, activities, collaborative partners, and context, partly to the fact that such university practices are in constant movement as a result of the dynamics of actual stakeholder needs, the dialogue between the actors, and the changes in the external environment of the collaborations. Also, every university's third mission portfolio is unique, as the realization of such practices strongly depends on the institution's embeddedness into the social network of its geographically relevant area (e.g. city, region, country), the level of institutionalization of the third mission activities, and the available resources on all sides.

Therefore, it is necessary to put forward our understanding of the term that informs our research. Having reviewed some of the most relevant literature, we use a wide interpretation of university third mission. For us, it refers to all those activities that universities plan, execute, assess, and develop together with their stakeholders from

the political, economic, social, educational, cultural, and civic environment on the local, regional, national, and international levels along the academic functions of teaching and learning, research, and community engagement. The activities spring from some actual need or possibility, and the resulting practices mutually benefit the actors, even if in a different way (Benneworth et al., 2018).

Such collaborations may directly or indirectly serve the growth of the economic competitiveness of their local, regional, national, or international environment, enhance its social development, preserve its cultural values, improve the quality of life of its inhabitants, and promote the sustainability of the natural environment. The third mission is realized in different forms and ways in the various scientific disciplines (Benneworth et al., 2018), which constitutes a versatile and shifting range of activities with “a wide range of motivations” (Hrubos, 2013: 36). The partnerships and collaborations on the different territorial levels may also extend to other higher education institutions (Pusztai et al., 2012; Hrubos, 2013).

3. The Aim of the Research

Inspired by a recent EUA study (Reichert, 2019), its follow-up research into the regional innovation impact of European universities (Tijssen et al., 2021) and Zoltán Gál's work (2013, 2016; Gál–Páger, 2017; Gál–Ptáček, 2019), the aim of our research is to explore and assess what role UTBv and DUE play via their third mission strategy and practice in the societal development of their cities and regions as based on the needs of their external stakeholders in the quadruple helix model. Thus, partnerships, expectations and offers, the variety of collaborations, the supporting factors and barriers, the realized benefits and future plans will be explored on both the university and the stakeholder sides. Then, by a critical comparison of the experiences of the two universities, similarities and differences will be highlighted, good practices will be offered, and the common features of their third mission practice will be related to the relevant literature on Central-Eastern European regional universities' contribution to regional development (e.g. Bowen et al., 2010; Gál, 2013, Gál–Páger, 2017; Gál–Ptáček, 2019).

Therefore, our main research question is: How do UTBv and DUE contribute to the societal development of their city and region? To investigate it in detail, we set up three groups of research questions: one for the institutions, one for the stakeholders, and one set for comparison.

Research questions for the two universities:

1. What local-regional external stakeholder expectations and needs has the university faced? Which ones have been relevant for its educational profile and capacities?

2. How has it answered these needs as part of its third mission strategy and practice? (collaborations with external stakeholders and their results)
3. What benefits have these collaborations brought to the university?
4. What factors have the collaborations promoted?
5. What difficulties and barriers has the university faced in the collaborations?
6. How would the university develop its external collaborations in the future?

Research questions for the stakeholders:

1. How did their partnership with the university start?
2. What were the areas of their collaborations with the university and what are their major results?
3. What benefits have the stakeholders realized from these collaborations?
4. What factors have the collaborations promoted?
5. What factors have the collaborations hindered?
6. How would they develop their partnership and collaborations with the university? (future needs)

Research questions for comparison:

1. What similarities are there between the two universities in RQ 1–6?
2. What differences are there between the two universities in RQ 1–6?
3. How have these universities contributed to the complex societal problems of their localities?
4. What seem to be common Central-Eastern European features of regional universities' contribution to the development of their city and region?

4. Methodology

The research is built on a comparative case study design of two institutional cases based on a non-random, purposive sampling. The selection criteria are the similarities of the two universities. They are both located in a non-metropolitan region of their countries with an Emergent Innovator status by RIS 2021 (EC 2021). They are the only higher education institutions in their region, have a similar educational profile (UTBv's offers include the educational fields of DUE), and share a similar historical origin (foundation in the Communist period). However, there are considerable differences between the two in terms of their region's stage of development (Regional Competitiveness Index 2019 for RO12 (Centru): 13.18, for HU21 (Közép-Dunántúl): 40.57, Annoni–Dijkstra, 2019) and in terms of their type and size: UTBv is a comprehensive university with a strong research profile and over 20,000 students in 2021 (Transylvania University of Braşov 2021), while DUE is a specialized university of applied sciences with less than 2,000 students

(DUE 2022). This warrants the careful analysis and comparison of our research results along the various dimensions of the enquiry (Farnell–Šćukanec, 2018; Farnell, 2020; Tijssen et al., 2021).

We employ a mixed methodology of the convergent parallel design (parallel databases) (Király et al., 2014). On the one hand, we apply non-reactive and quantitative measures, namely qualitative content analysis, on the integrated regional development strategies of the two cities, on the websites and available institutional documents of the two universities, and on the institution's UASiMAP Self-Assessment Report (DUE, UTBv). This will be complemented by a secondary analysis of relevant official statistical data (Eurostat, KSH, INS, Erdélystat, RCI 2019, RIS 2021) to triangulate our qualitative data. On the other hand, we use qualitative measures, namely semi-structured interviews with university senior management, key people, and the representatives of as many external stakeholder groups of the two universities as we can to cover the widest range possible.

As for our definitions, we have already stated our understanding of the *third mission*. Here we only mention another term, *region*, which we interpret as a city and its immediate surroundings in a 50-km radius (Tijssen et al., 2021).

5. Preliminary Results

We have published nine papers and compiled a yet unpublished report for the EURASHE UASiMAP project as a piloting institution (UASiMAP Self-Assessment Report: DUE, 2021) in connection with the present research. Three theoretical papers discuss the phenomenon of university third mission as presented in the European and Hungarian literature (Sitku, 2019b), its relation to university social responsibility (Balázs et al., 2021) and to service learning and social innovation (Sitku, 2021c). An institutional self-assessment tool for a widely interpreted community engagement, the TEFCE Toolbox (Farnell et al., 2020), has also been analysed in terms of its potentials for building a learning community of the assessing university–stakeholder team (Sitku, 2022).

The other six works are research papers on various aspects of the third mission practice of the University of Dunaújváros or the available European assessment tools for university third mission. They explore the range of third mission collaborations (Sitku, 2019a; Balázs et al., 2021), their results and limitations (Sitku, 2019a; Sitku, 2023b [forthcoming]) and analyse the university–municipality partnership along the research questions presented above (Sitku, 2021a). Students' experience with participating in the university's third mission events has also been investigated (Sitku, 2020), of which find there is a summary below. Moreover, the possibilities of introducing the methodology of service learning to certain courses at the Institute of Social Sciences have been explored, as it is the major manifestation of the third

mission in the teaching and learning function of a university (Sitku, 2021b). Finally, an analytical paper is under publication, which takes the university management's viewpoint on choosing between the institutional self-assessment tools presently available in the EHEA for a developmental evaluation of their existing strategies and practices in the field of the third mission (Sitku, 2023a [forthcoming]). Our research data on the rest of DUE's stakeholders and on UTBV's institutional data are still being processed for the dissertation.

To zoom in on an important aspect of our research, the realized benefits of university–external stakeholder collaborations, let us now present the student side of the third mission practice of the University of Dunaújváros (Sitku, 2020). We conducted a qualitative research based on structured face-to-face or online interviews with students who had joined in the organization and execution of the various activities, temporary or recurring, relating to the third mission of the university between January 2016 and April 2019.² Among others, we asked the question as to what added values they gained by participating in the realization of the various annual and occasional events. The rationale was the position of third mission activities being considered extra-curricular activities, which may result in various cognitive, social, and affective learning outcomes, and thus increase student satisfaction and retention (Duque, 2014). Our research results provide an insight into the fieldwork and actual impact of university community engagement activities on the participating students.

Students typically get involved with the activities due to their membership in the Students' Union or their internship at the Communication Office. The range of tasks in the organization and execution of the events include brainstorming, the sourcing of necessary materials, decoration creation, venue preparation, marketing, hosting the events, orientation, giving short presentations, distributing marketing material, liaising with partners of the university, charity work, postproduction works on media material, etc. Those participating in the recruitment campaign of the university even receive a two-day sales training and are involved in various thematic groups addressing and orienting visitors, operating the promotional tools, and documenting the events.

Among the motivations for involvement, most students hope for the increase of their social and relational capital, a job opportunity, the emotional gratification of working in a team, self-realization, or have altruistic feelings. Their work's

2 Researchers' Night (every September), Science Week (every November), Santa Claus visiting the university kindergarten (every December), "Jószolgálati Karácsony" (December), fundraising (twice a year), blood donation (twice a year), open sports programmes (several times a year), roadshows of the Recruitment Campaign (several times a year), Open Days (November–February), DUDIK Festival (June), DUE conferences (several times a year), OTDK 2017 (April), TDK and Talent Day (November and May), ISZC Project event (several times a year), MaTech Competition 2018, 2019 (April), Week of Electromobility, 2018 (September), Freshmen's Camp and Freshmen's Ball (every year).

possible contribution to their individual academic aims is less of a motivating factor. Accordingly, expected benefits of the participation focus on gaining work experience and developing workplace skills, self-realization, earning money, and taking part in social activities, while advantages in their studies are not expected. As for the realization of the benefits, students report the improvement of their communication, time management and “employee skills”, as well as the ability to handle people and difficult work situations. Their emotional and altruistic needs are also met; they gain practical experience supporting their theoretical studies, earn some money, and increase their personal prestige on campus.

As for added values, students highlight the growth of their social capital and the sense of belonging to a small community, values relating to personality development and the gratification of emotional motivations. The connection between the achieved benefits and their academic studies is rather less characteristic, though. According to the majority, there is no correlation between the participation in the organization and the execution of university third mission activities and students’ study aims, i.e. their academic studies on a given programme.

Students also provide negative experiences: the frequent disinterest and passivity of their fellow students, the difficulty of finding “the right person for the job”, and the agreement on a mutually convenient time for the tasks. Furthermore, the explanation of their participation in the events for the missed lessons on their courses is not acceptable for some teachers, and students feel that “what is everybody’s business is nobody’s business”. Furthermore, low public interest in the events and missing empowerment in the recruitment campaign also have a disheartening effect, yet they report an overall intention for future participation.

We also invited students’ suggestions for the improvement of the third mission activities. They advised the expansion of the range and number of activities and to make them more open and involve “external students”. The scheduling of the events and the internal communication of the university are two areas for improvement. They would emphasize “the right marketing that can raise people’s attention”, would follow the trends more and harmonize the “CSR activities” of the university. The financial aspect of the activities should be strengthened; they would improve their work–life balance and would like to spend sufficient time on their studies.

From the perspective of the institution, many of the discouraging factors in the way of the sustainability of third mission activities may be overcome or may at least be alleviated by involving university students into their realization. Low HR resources, fluctuating financing, lack of time, the need for institutionalization, and the embedding of these activities into university strategies (Gál, 2016; Reisinger–Dános, 2015; Sitku, 2019a) may be fully or partly solved by students’ well-planned and directed participation.

However, we consider it a shortcoming that DUE's third mission activities have not been planned along deliberate student learning outcomes. Hence, we suggest their reconsideration along the dimensions of professional knowledge, skills, affective learning outcomes, autonomy, and responsibility and then their linking to the relevant theoretical and practical courses. It is also worth emphasizing in what terms these activities and students' long-term participation might increase future student employability. Although they only mentioned a few professional skills, students had developed several "employee soft skills" such as team work, taking responsibility, time management, communication skills, and conflict management. These are such added values that are worth conscious development by the institution and that may also contribute to the popularization of the educational offer and colourful campus life of the university.

6. Conclusions

We started our doctoral research in the autumn of 2018 with the finalization of the research plan in the spring of 2020. Over the years, we have conducted an extended literature review and some smaller, related research (as presented earlier), which enrich the main pathway of the doctoral research. We have analysed the subsequent institutional strategies of DUE (2016, 2021, 2022) together with various other internal documents, as well as the integrated urban development strategies of Dunaújváros (2016–2020) (Sitku, 2021a). As for the third mission practice of DUE and its assessment, we have conducted 26 interviews with 22 senior managements, university key people, and available external partners. This dataset has been complemented by the collection of related institutional data and a self-assessment when piloting EURASHE's UASiMAP Self-Reflection Tool and Self-Assessment Report in 2022. The secondary data and the UASiMAP SRT and SAR are ready for further analysis; however, some of the interviews are yet to be processed.

As for Universitatea Transylvania din Braşov, our cooperation on the present research started in late 2020 and has been quite successful. We have collected the major institutional and municipal documents related to the university's present third mission strategy and practice, and some further institutional data are on the way. In terms of empirical data collection, nine interviews have been conducted with various vice-rectors and key people at the university and some of their major external partners (county council, municipality, businesses, cultural organization), which a recent visit to the university has completed. The interviews have all been analysed to be followed by the assessment of the secondary data.

Possible future directions of this research include impact studies on universities' community engagement activities to detect their direct and indirect results and effectiveness on their environment (Tijssen et al., 2021). It is also important to

investigate how they contribute to the solution of local sustainability challenges, and what innovation, especially social innovation, they make possible in the relevant communities (Kozma, 2017, 2019; Kozma–Márkus, 2019). Finally, the recent Hungarian university governance and financial model change might warrant changes in the third mission strategy and practice of universities – what might be their impact on the institution and its stakeholder environment?

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