IMPACT OF EDUCATIONAL CSR ON REGIONAL BUSINESS

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Abstract
The research on business models that incorporates a variety of stakeholders is a recent trend in the field of management. This paper aims to add new insights to this research and analyses the implementation experience of two recent educational CSR projects facilitated by companies, business clubs and a university. This paper describes the underlying mechanisms during the layout phase of these projects and provides an implementation feedback based on a survey performed with executive managers of the regional business environment. Beyond regional considerations this paper is expected to have a general relevance for businesses and governmental institutions operating in regions transforming towards a knowledge driven economy.

Key words: corporate social responsibility, business strategy, stakeholder management, knowledge driven economy

JEL classification: M14, L14, L31, M41

1. Introduction
Corporate social responsibility has been seen as the responsibility - not to say obligation - for companies to give something back to society (N Bibu, Năstase, & Gligor, 2010; Witkoska, 2016). By following this view, companies pursued CSR initiatives primarily from a cost point of view. However, if the company does not have a solid business interest then the motivation to follow through and reach the set goals can fade away over time or get lost between competing CSR initiatives (M. E. Porter & Kramer, 2011).

Starting point for the reviewed educational CSR initiative was the observed lack of qualified people on the regional labour market of West Romania, that limited the growth opportunities for business and lead to high
training costs during the onboarding process as well as high market prices for the salary of rare specialists. The trend of increasing qualification requirements and an observable brain drain of young talents to universities abroad were identified as two significant strategic bottleneck for the growth of regional business:

**Figure 1: Strategic bottlenecks**

![Diagram showing the relationship between requirements and brain drain]

Source: (Laval, 2015)

Increasing qualification requirements - Multinational companies often follow a best cost approach in their global plant site strategy. Regions in a transforming process towards a knowledge driven economy can hardly compete in the field of labour costs for unskilled labour, which can be found cheaper in other areas of Eastern Europe. However due to the proximity to various universities in the region, multinational companies could substitute low skilled workplaces more and more with educated workplaces in the areas of engineering, production or high qualified administrative services in an increasing number of shared service centres ("SSC"). Several multinational companies set up IT SSC which provided worldwide support in SAP customizing and ABAP programming. Also, the number of SSC in the field of Financial Services using SAP is steadily growing. While the demand for SAP proficient applicants grew steadily, there was no university in the region who educated employees or future employees in the field of SAP. The growth perspectives for this SSC therefore slowed down. The multinational companies started "stealing" employees from each other, thus leading to high fluctuation in this business line (Laval, 2015; Popa, 2014a, 2014b).
Brain drain - Regions in a transforming process towards a knowledge driven economy often suffer a brain drain of their most talented young people towards countries with a higher salary level. For example, several high schools in West Romania are teaching in foreign languages and herby generate pupils with advanced foreign language knowledge. Still multinational companies have increasing difficulties when recruiting the number and quality of candidates with advanced foreign language knowledge needed to follow their growth strategy. One reason for this mismatch is that too many pupils with strong language competencies leave the country after high school graduation to continue their studies in western Europe, especially at universities in Germany or Austria. They leave to maintain their foreign language skills, to get a diploma from a university located in Western Europe and in consequence have an easy access to the higher paid jobs abroad. This observation of brain drain can be generalized for pupils with strong language competencies which decide after high school to leave the country to obtain a university education in a higher developed country or region.

2. Project layout and expected results

The described strategic bottleneck could hardly be addressed alone by a single multinational company as “firm competitiveness must be shown as a part of territorial and local competitiveness. The economic development is a cooperation process between government, local administration, firms, research institutes and education” (NA Bibu, Sala, Pantea, & Bizoi, 2008; M. Porter, Hills, & Pfitzer, 2011). The formation of a multi stakeholder cluster including several companies, business clubs and the university was applied to achieve mutual benefits of society and business and to overcome the described strategic bottlenecks. The cluster can include hiring companies, educational institutions and other governmental and non-governmental organizations. By collaborating with these stakeholders, the companies can influence the quality and quantity of potential employees by contributing to the cluster with the company's specific knowledge while integrating the others stakeholders’ potential in a symbiotic approach. In some cases, it will be enough to provide the other stakeholders with "a nudge" to adapt their own core business in a direction beneficial for all stakeholders involved. By creating value to all the involved stakeholders, the CSR initiative will be more successful and sustainable for all the stakeholders (Laval, 2015). The following two
initiatives were launched by regional business with the West University of Timisoara, in the following referred to as the university:

The first measure was to introduce SAP to the IT master curriculum of the university. To especially increase the practical competencies of the university professors in SAP an extensive train the trainer program was set up, which included 1500 hours of training inside the company. "Every teacher has an professional expert who becomes practically their shadow or guides them for four months, teachers become familiar with the system and they are getting help to prepare teaching materials, so that our professionals can share with them practical experience" (Popa, 2014a). During the first two years’ experts from the multinational company also supported the professors in providing the practical seminars as those seminars require a higher amount of practical experience than the more theoretic classes. The train the trainer program, as well as the support during the classes were planned and controlled using a project plan with dedicated milestones, specific to a strategic approach to CSR (Popa, 2014b; M. E. Porter & Kramer, 2002).

![Figure 2: “Connection between financial performance and CSR”](source)

Source: Based on (Laval, 2015)
The second measure supported the university management to set up a double degree pathway with a prominent German university to address the desire of students to obtain a foreign diploma without leaving the region for a longer period and hereby to reduce the brain drain. German executive managers contributed their network to leading universities in Germany to arrange this partnership, consulted the university the modernization of their curriculum and offered native speaking business executives to support the classes. To increase the job chances and additionally promote to the success of this program the curriculum was enriched by highly appreciated study contents such as controlling, purchasing, international accounting standards and a solid SAP knowledge. The German Business Club “DWC” and Rotary supported this project by granting scholarships for selected students (Tari, 2015; Thiel, 2015).

In the Figure 2 the expected cause and effect relationship between the educational CSR initiatives and the financial performance of the participating companies is illustrated:

The educational CSR initiative represented measures with three direct targets. The first direct target of the initiative was to eliminate the identified educational constraints by improving the quality of education. The second direct target was to position the participating companies within the local labour market as an attractive employer by accompanying employer branding. The third direct target was to stop the brain drain of young talents by offering a double diploma in Romania. By reaching the three direct targets the availability of qualified workforce can increase.

**Figure 3: “The measurability of CSR value contributors”**

Source: Authors own processing / survey 2016
An increased availability of qualified workforce can trigger a set of value contributors. The impact of a CSR value contributor on the financial performance depends on its proximity to the company’s value chain. "Value chain of social impacts" are related to the ordinary course of business such as training expenses, energy consumption or worker’s safety. The "competitive context factors" relate to external aspects which can influence the company's competitiveness (M. E. Porter & Kramer, 2006; Rangan, Chase, & Karim, 2015).

The Figure 3 illustrates how the measurability of a CSR value contributor depends to which extend the contributor is part of the value chain or has the quality of a competitive context factor.

As an example, the reduction of internal training costs is close to the value chain and can be measured by costs for external or internal training providers as well the costs for the training time, in which the employees are not as productive as wanted. The reduced price and the specialist’s profiles are comparable but less measurable. It still can be assumed that recruiting comparable skilled young professionals from the university will be possible at a considerable lower price than to steal young professionals from other employees. The reduction of fluctuation on the market as the need to steal from competitor’s workforce eases is a competitive context factor. Although, the beneficial impact of reduced fluctuation on financial performance can be argued logical, a specific measuring is relatively unreliable. All value contributors can reduce the competition for well-educated specialists in the local job market and thereby support the growth of high qualified jobs in general (Reiche & Herrhausen, 2010; Schmidpeter & Günther, 2013). In the following survey the cause and effect relationships are further analysed and validated by the executives and hiring experts of the regional job market.

3. Validation based on survey with regional business environment

The first measure to introduce SAP to the IT master curriculum of the university was implemented starting with winter semester 2014/15. The second measure started with the signing of a double degree contract between the Romanian university and the German university was signed in January 2015 and the new curriculum started shortly after in September 2015.

To validate the cause and effect relationship after the first year of operation we conducted interviews with 19 managers form 15 important multinational employers in the region. The managers had authority to hire and
evaluate the graduates and their skills and capabilities. Of total 19 representatives, 10 representatives are owner or CEO, 4 are department head, 1 is director and 4 are specialists in their companies. Each interview was made face to face for about two hours and was based on a structured questionnaire. To reflect the perspective of the educational field we also interviewed two professors from the university. In the case two representatives of one institution were interviewed the name of the institution appears more than once in below figure:

**Figure 4: Overview of performed interviews**

<table>
<thead>
<tr>
<th>Company name</th>
<th>Interview date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dräxlmaier</td>
<td>10.06.2016</td>
</tr>
<tr>
<td>PKF Econometrica SRL</td>
<td>10.06.2016</td>
</tr>
<tr>
<td>Corpstrat Consulting SRL</td>
<td>10.06.2016</td>
</tr>
<tr>
<td>West University of Timisoara</td>
<td>13.06.2016</td>
</tr>
<tr>
<td>Helpline Romania</td>
<td>14.06.2016</td>
</tr>
<tr>
<td>KPMG Timisoara</td>
<td>14.06.2016</td>
</tr>
<tr>
<td>DWC</td>
<td>14.06.2016</td>
</tr>
<tr>
<td>Netex Consulting</td>
<td>14.06.2016</td>
</tr>
<tr>
<td>Accenture</td>
<td>15.06.2016</td>
</tr>
<tr>
<td>Netex</td>
<td>15.06.2016</td>
</tr>
<tr>
<td>Dräxlmaier</td>
<td>16.06.2016</td>
</tr>
<tr>
<td>West University of Timisoara</td>
<td>16.06.2016</td>
</tr>
<tr>
<td>INTERPART PRODUCTION</td>
<td>20.06.2016</td>
</tr>
<tr>
<td>Linde</td>
<td>21.06.2016</td>
</tr>
<tr>
<td>Bosch</td>
<td>22.06.2016</td>
</tr>
<tr>
<td>F&amp;F IT Services</td>
<td>22.06.2016</td>
</tr>
<tr>
<td>Mattig Expert Swiss Partners</td>
<td>23.06.2016</td>
</tr>
<tr>
<td>Continental Automotive</td>
<td>24.06.2016</td>
</tr>
</tbody>
</table>

Source: Author’s own processing / (Laval, 2016)
The reduction of internal training costs was the first expected value contributor. Following our survey, the productivity level of fresh graduates in traditional education before the start of the collaboration was estimated to be 37%. The reason for this rather low competence appreciation was seen in the fact, that the teaching content appears to be, in some parts, outdated and the teaching approach does not train independent problem solving techniques. Based on this limited competence level at graduation the necessary amount of training on the job required a big amount of time and money to be invested by the multinational companies.

![Figure 5: Number of participants by activity type](image)

Source: Author’s own processing / (Laval, 2016)

The participants of our survey estimated that the company relevant competencies will increase because of the updated curriculum, the internship opportunities and the possibility to participate in the international exchange program. The field of expected competency improvements was hereby differentiated as follows.

According our survey, the companies expect the implemented CSR measures to facilitate an 170% increase in the general programming/ SAP skill of fresh graduates, which is the most significant expectation followed by 108% increase in controlling technical knowledge and 91% increase in understanding business culture. Moreover, they anticipate the exchange program to have a major effect on improving German language proficiency, professional attitude, problem solving, and other capabilities as well.

The participating companies believe that the measures will contribute to the practical relevance of university education in Timisoara. The exchange program is a good option to be exposed to multicultural environments and to mature for students. It will allow students to focus more on important subjects
like controlling, SAP, purchasing which were job profiles so far not covered in the curriculum.

**Figure 6: Expected increase in level of each competency area**

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Current</th>
<th>Growth</th>
<th>Expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. English language proficiency</td>
<td>75</td>
<td>6%</td>
<td>79</td>
</tr>
<tr>
<td>2. German language proficiency</td>
<td>54</td>
<td>66%</td>
<td>89</td>
</tr>
<tr>
<td>3. Proficiency in Microsoft Office…</td>
<td>60</td>
<td>39%</td>
<td>83</td>
</tr>
<tr>
<td>4. SAP and general programming…</td>
<td>27</td>
<td>170%</td>
<td>72</td>
</tr>
<tr>
<td>5. Professional work attitude, especially…</td>
<td>48</td>
<td>54%</td>
<td>74</td>
</tr>
<tr>
<td>6. Understanding of foreign business…</td>
<td>39</td>
<td>91%</td>
<td>74</td>
</tr>
<tr>
<td>7. Accounting technical knowledge</td>
<td>50</td>
<td>35%</td>
<td>67</td>
</tr>
<tr>
<td>8. Controlling technical knowledge</td>
<td>26</td>
<td>108%</td>
<td>54</td>
</tr>
<tr>
<td>9. Purchasing technical knowledge</td>
<td>28</td>
<td>34%</td>
<td>38</td>
</tr>
</tbody>
</table>

Source: Author’s own processing / (Laval, 2016)

The participants of our survey estimated that the company relevant competencies will increase because of the updated curriculum, the internship opportunities, the improved training possibilities with trainers from the corporate world as well as new IT laboratories and the possibility to participate in the international exchange program. In overall the competencies are expected to increase from 37% up to 65% with all described CSR measures implemented:
The reduction of prices for specialized profiles was the second expected value contributor. Per our survey the average monthly salary of newly graduated SAP/IT specialist is €554 and tends to increase 12.5% per year after onboarding, consulting companies offer €608 which is highest amount and highest increase rate, 13.3%, among other companies. Audit consulting bookkeeping company offers €417 which is lowest amount, however, annual increase is 13.0%. Production of industrial goods companies offer €571 per month but annual salary increase is 11.4% which is lowest percentage increase among companies.

Most the interviewed companies think that since there’s high demand for well-educated work force, it’s highly unlikely that the salary will decrease. They think if the new study line produces graduates with good quality, the graduates will pull demand and its profiles further and local graduates can take over more advanced tasks in multinational companies. Furthermore, the more
successful the graduates are in multinational companies with such advanced tasks, the more Romanian companies will be interested in the study line.

The reduction of fluctuation was the third expected outcome. Our survey indicates that the fluctuation percentage reaches high levels in the case of most of the interviewed companies. According the survey, 47% of the company representatives observed a fluctuation above 15% per annum. Our survey indicates that the average fluctuation in the field of auditing/consulting/bookkeeping is 20.0% and in the field of back office/SSC to be 23.1%.

Figure 9: Tendency of salary decrease in SAP / IT

Source: Author’s own processing / (Laval, 2016)

Per our survey, the average fluctuation percentage per year is 16.9%. Auditing consulting bookkeeping (20.0%), back office/ SSC (23.1%) and consulting (21.0%) companies have high fluctuation rate of work force. Production industrial goods companies have 10.8% fluctuation rate which is the lowest comparing to other companies.
To understand how and if the new study line could have an impact on work force fluctuation our survey asked for the most important fluctuation factors:
The strongest factors that affect employee fluctuation are high salary at other employers and companies between employers/companies are headhunting which are external factors. Change for career step, including more responsibility is one of the strongest internal factors.

Moreover, some factors related to company’s HR management such as different level of employers branding, high workload and pressure in the current job and missing feeling of belongingness and work satisfaction tend to have moderate effect on fluctuation.
53% of companies think that new study line will have no correlation or any effect on work force fluctuation rate. 11% of the companies answered that the new study line will decrease fluctuation and increase stability. The rationale behind this assumption is, that the increase in work force supply that was generated by new study line will soften the competition between employers and opening the possibilities to bay higher salaries due to the increased competencies. In consequence, these companies assume a decrease the fluctuation by 8.5% on average.

On the contrary, only 5% of the companies think there will be 5% increase in fluctuation rate because higher educated work force will draw competition from outside Romania such as Germany with high salary level. Nevertheless, most companies think that there will be no change because the new study line will have less effect on changing situation and mentality in the company. Moreover, the number of graduates was seen too low to make impact on the regional fluctuation rate.

4. Cluster benefits
To maximize not only the financial success of the company but also of the entire cluster the benefit of the other stakeholders has to be kept in focus and maximized (Pfitzer, Bockstette, & Stamp, 2013; M. E. Porter & Kramer, 2002). In the following the impact on the university and the involved business and philanthropic institutions is analyzed.
The university could pursue its business strategy to improve their ability to attract students through these collaborations. The study line will be taught completely in German language and the language requirements to German proficiency were set very high. Never the less in already in the first year all 30 places were filled by young Romanians proving the attractiveness of the double diploma pathway and support from the local business environment. The university could further increase its political influence by being visible to the business environment (UVT_Timisoara, 2015) as well as other members of the cluster: "Through this initiative, the university strengthens its business relationship with multinationals present in the local market. We answer to their requests of preparation of specialists in computer systems business. It is an added value brought by the university and is part of an ongoing strategy to develop educational offer" (FEAA Timisoara, 2014). The new programs became a pathway for their future career and by this a core business interest for the students (Popa, 2014b). The positive integration of the university program within the requirements of the local industry is reflected by the number of internships offered by local business environment to the students of the new business line:
In fact, in 2016 the number of internships offered by local business environment out passed the number of internship places needed. Each student was offered more than one internship. The fact that the local business environment offers more internship places than requested is unprecedented at the university and can be seen as indication for the improved job chances of the future graduates.

The **business and philanthropic institutions** supported the CSR measures as part of their core business strategy. The German Business Club “DWC” could promote this initiative as a service for their member companies and thereby increasing the importance of the association for its member companies. Further the DWC could use its involvement to brand itself as valuable partner in the cluster and thereby gaining access to leading politicians and business representatives. The following figure shows the recognition of the philanthropic involvement of DWC / Rotary in the educational CSR measures:

*Figure 14: Recognition of CSR involvement*

Source: Author’s own processing / (Laval, 2016)

Our survey indicates, that 46% of the survey participants heard of Rotary/ DWC scholarship for talented students from poor regions and that
70% seemed it possible to further support joint scholarship program at Rotary/DWC level.

A positive impact on regional development was another expected outcome. According our survey most companies (62%) believe that the new study line will have a high impact in increasing competitive advantage of IT shared services in West Romania. But those who answered that it will have low impact (30%) think that the number of graduates might be too low to effect. Survey participants estimate that an significant effect on regional competitiveness would require an increase of graduates from 30 to 100 graduates per year.

Figure 15: Impact on regional competitiveness

Source: Author’s own processing / (Laval, 2016)

5. Outlook and lessons learned

Based on the interviews with local business environment after the first year of collaboration the following SWOT of the educational CSR measures can be summarized in Figure 16.

To further develop the efficiency of the program, the representatives of the business environment in the survey made the following recommendations:

1. Involving professors and teachers more in business culture. It’s important that teachers can teach and transport the modern business culture and skill requirements. Therefore, initiatives to further involve teachers directly into business activities for certain time periods would help them
update and adapt teaching materials to current and future business requirements.

**Figure 16: SWOT of implemented CSR measures**

<table>
<thead>
<tr>
<th>STRENGTH</th>
<th>WEAKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The program has strong support from the regional business environment, especially the German business club and several multinational companies. Very high expectation and aspiration to have skilled employees and positive and supportive overview of the success of this initiative.</td>
<td>Education system still lacks business representative inclusion in university teaching and sharing of practical experience. The role of purchasing experts increases, however, the such competences are not included yet in the curriculum.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPPORTUNITY</th>
<th>THREAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>High demand and capacity for new graduates in the market. High potential to attract companies to collaborate in the future and to offer many internship programs and joint scholarships. Positive impact on increasing competitive advantage of West Romania as preferred location for Shared Service Centers.</td>
<td>Due to significant difference in salary amount the brain drain to Western European countries might still occur after graduation.</td>
</tr>
</tbody>
</table>

Source: Author’s own processing / (Laval, 2016)

2. Increasing the period of obligatory internships. Students will receive practical knowledge from internships. It usually takes a minimum of two months to understand the basics of business.
3. Internships can partly compensate missing courses which were made optional or taken out of curriculum, such as purchasing and controlling knowledge.

4. Problem solving tools and techniques. In business, problem solving and critical thinking skills are important to make decisions. Therefore, it’s highly beneficial to teach and embed modern problem solving tools and techniques in courses and internships.

5. Business leader gained valuable experience over the years. Sharing this experience with students will bring many benefits including choosing the direction of their career. Therefore, it’s crucial to initiate further projects that include experts from various sectors to share their experience and insight.

6. Increasing number of graduates of new study line per year. The demand for educated and skilled workers is high. 30 graduates each year are not expected enough to keep up with this demand. Therefore, expanding the collaboration with other universities and increasing the number of universities that teach in the new study line will support the supply of workforce greatly.

6. Conclusion
The usage of “multi stakeholder clusters” can help to increase the performance of CSR projects. The implemented CSR projects demonstrated, how such multi stakeholder clusters can be used to significantly reduce the workload of individual companies engaging in CSR initiatives. Important precondition for the contribution of other stakeholders however is to enable those stakeholders to reach their complementary goals in the CSR measures.

The survey confirmed, that the impact of CSR value contributors on financial performance depends on their proximity to the companies’ value chain. All company representatives expected a significant increase of the qualification level of future graduates and hereby a reduction of onboarding and training costs. In comparison, the expected impact on competitive context factors such as fluctuation and salary levels was seen comparable low, mainly because of the limited number of such graduates reaching the job market in the next years.

Following the performed survey with the representatives of the regional business environment it can be concluded, that described CSR
measures are expected to be a value added for the contributing stakeholders and that the measures will have a positive impact on regional development.

The author expects, that the results of the outlined educational CSR measures can be realized also in other regions which are in a transforming process towards a knowledge driven economy.

7. References


