THE IMPACT OF TRANSFORMATIONAL LEADERSHIP ON UNIVERSITY PERFORMANCE THROUGH KNOWLEDGE AND INNOVATION

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ABSTRACT: This study investigated the range of potential performance implications of transformational leadership to improve the university performance by creativity, knowledge, and innovation. We examine the relationships among innovation orientation, transformational leadership, organizational learning, and university performance using hierarchical OLS regression technique. We found that transformational leadership influences the relationship between leaders’ performance (rectors, deans, and managers) and university’s outcomes (teaching, research, and service) to establish how leader behaviours affect the university performance. Results reveal that transformational leadership may motivate academic staff to work harder, exerting more effort and engaged in higher levels of task performance through inspirational motivation, intellectual stimulation, idealized influence, and individualized consideration. The current study shows that transformational leadership may facilitate higher levels of creativity and innovation through emphasized the knowledge integration mechanisms into university. The moderately positive relationships of transformational leadership with university performance suggest that universities should focus on selecting and promoting individuals for upper-level managerial positions with these characteristics.

Key words: transformational leadership, university performance, organizational learning, innovation, creativity

1. INTRODUCTION

Today, universities are the engines of economic growth and play an essential role in education the next generation of scientists and engineers [5]. The universities are repositories of new knowledge. The academic members generate new knowledge and use it in research activities and disseminate it through teaching activities. The university community also participates in many service activities. Thus, the missions of universities in general are in teaching, research and service. Quality of education service is linked to research and scholarship [7]. Universities face a constantly changing education market characterized by unpredictability and strong competition. They must identify the best solutions to improve their performance. Basically, university performance can be evaluated using three key dimensions such as teaching, research, and services. As a university register better performance, much more it enrol a larger number of students, it can attract more funds from research, and it can be more involved through its service in community. One way by which a university can meet this challenge is leadership, especially, transformational leadership. According to previous studies the transformational leadership has received a great deal of theoretical and empirical evidence [1]. Previous study has shown that transformational leadership is positively related to change, innovation, and performance aims [9]. There is comparatively little research on transformational leadership and university performance, although this leadership provides individualized support, consideration and appreciation which are essential for improvement the research, teaching, and service performance. The importance of transformational leadership has been widely discussed in the management literature, which suggests that understanding its four dimensions is crucial for organizations hoping to increase their competitive advantage. The present study attempts to address these issues and to provide a better understanding of the impact of transformational leadership on academic performance by examining the effects of organizational learning, and innovation orientation. This research reflects an effort to extend the literature on leadership by examining the impact of transformational leadership on university performance. It contributes to this literature in several ways. First, to our knowledge, this is one of the few empirical studies that analyze the influence of transformational leadership on academic performance. The research model is tested using a sample consist of academic members from different Romanian universities. Second, our findings offer some directions to action for academic management to meet current challenges. These guidelines are valuable for those seeking solutions to current problems facing. Third, we include some moderators in our model to understand the mechanism by which the main dimensions of transformation leadership affect the teaching, research, and services performance. Forth, the current study shows that transformational leadership may facilitate higher levels of creativity and innovation through emphasized the knowledge integration mechanisms into university. Finally, the results show that it is necessary to attract and promotion of transformational leaders in the top management positions of universities because they have knowledge worker that achieve tasks with greater intellectual content. Transformational leaders enable the search for new opportunity, creation of a common vision, and motivation and guidance of employees. Both creativity and innovation are major contributions to transform traditional universities. Skilled and flexible academic staffs are one of the key drivers of high education services. A skilled and flexible labour force can play important roles in knowledge transfer. The academic members contribute to stock of tacit knowledge. Human capital is a source of higher performance
for universities and a critical factor for getting competitive advantage. The rest of the paper is organized as follows. First, we review the literature and provide a theoretical background to our research before proposing a set of formal hypotheses. This is followed by a description of our study, research method, and results. Finally, we discuss our findings, examine managerial implications, and identify future research opportunities.

2. THEORETICAL BACKGROUND AND HYPOTHESES

From the beginning, it is important to clarify some concepts to understand the role of transformational leadership in a university. A mission is why an organization exists, and what it does. A vision is a statement which describes where an organization wants to be in the long term. A strategy states how the organization is going to achieve its vision, and implement its mission.

Universities are a training platform for the next generation of scientists and engineers. Universities need to adapt to the changing market through structural reform to respond actively to diverse demands of society and enhance their capacity. Basically, the missions of universities are teaching, research and service. Teaching refers to content of all programmes of courses through modernizing laboratories and other academic facilities. The teaching performance of university can be evaluated through the number of graduates, the faculty/student ratio, and the number of faculty member with PhDs.

The teaching university is based on education and seeks to increase the rate of enrolment. The research university alongside with teaching activities is engaged in knowledge creation by basic research projects. A professor can devote primary energy and creativity to teaching but he or she is penalized and often looked down upon by peers. It is well known that promotion at universities is greatly affected by a faculty member’s accomplishments in research. Thus, research grants become the driving forces for faculty recognition and promotion. The research performance of university is based on the number of PhDs, number of publications of different kinds, and the number of external research projects and grand obtained. Service is third mission of university. This mission is based on the community engagement activities, creation of new business or spin-offs, participation in an editorial board member of journals or scientific committees of national and international conferences.

Today, in Romania, universities have a dual management system, one academic and the other administrative. The academic leading is realized by Senate. Rector and vice-rectors have administrative tasks and goals. This type of management system presents a major disadvantage, namely between the rector and the head of Senate is possible to arise a conflict. If a big conflict arises between the rector and head of Senate the management efficiency decrease dramatically as academic goals cannot be achieved.

Rector has a key role in managing and providing resources for teaching and research processes of the university. A rector does not have to be a scientist or a teacher remarkable scientific results but he must be a leader able to mobilize resources and have vision to act proactively to achieve the academic goals.

In this paper we attempt to show that a rector that applied transformational leadership will be able to achieve better results for his university. We know that transformational leadership refers to an ability of leaders to motivate, subordinates to achieve performance beyond expectations by transforming the subordinates attitudes, beliefs and values. Transformational leaders (rectors) becomes a key driver of explaining and enhancing competitive advantage, academic performance and opportunity growth by vision, inspiration, stimulation, coaching, and motivates of academic staff.

Bass (1985) conceptualized transformational leadership as comprising four core dimensions [3]. Inspirational motivation allows leaders to set a compelling vision of the future that leaders take initiatives in changing the organization. Basically, idealized influence characterizes leaders who represent a trustworthy role to follow. Intellectual stimulation enables leaders to encourage subordinates to take risk and look for new ways of doing things. Finally, through individualized consideration, leaders help followers on a one-on-one basis, focus on their individual strengths, and help them cope with stressful situations [3], [4]. Hence, we propose that a transformational leadership can improve the academic performance. Therefore, we hypothesize the following.

H1. Transformational leadership has a positive impact on academic performance (teaching, research, and service)

Innovation helps the university to deal with the turbulence of dynamic educational markets and, therefore, is one of the key drivers of economic growth and university success [2]. Transformational leaders can stimulate the innovation through encourage new different ways of thinking, seeking new opportunities or solutions to current problems and adapting the university at new challenges. Innovation orientation refers to all activities which support the teaching, research, and service. In a university is obviously the most important field of activity the research. By developing an innovative culture can be stimulated creativity and research. Innovation can attract additional funds useful to modernize laboratories and other facilities, to better motivate the academic staff and funding development of university through the establishment of new faculties, specializations or departments. The most important result of innovation lies in using new knowledge in teaching process. The transformational leadership enables university to integrate, share and use this new knowledge innovatively. By innovation processes, university can improve its internal dynamic capabilities to create, deploy, sharing and exploit knowledge.

H2: The innovation orientation has a positive impact on academic performance

Transformational leadership stimulate the organizational learning. The academic members are influenced positively to learn through creating a climate that support and enhance the learning processes. Transformational leaders encourage academic staff to transfer knowledge, good practices, and improve the teaching process by conferences, papers published in various journals and very good and active internal communication. A learning organization can acquire and use new and relevant knowledge better, develop critical capacities and skills. In this case, rector is a catalyst, mentor, and facilitator for organizational learning. The academic members learn through experimentation, communication, dialogue, and publishing [6]. Academic members are identified in this study through the control variable - academic status (1=professor, and 2= reader or lecturer). This leads us to the following hypotheses.

H3: The organization learning has a positive impact on academic performance
H4: The academic status has a positive impact on academic performance

Figure 1 provides a full overview of our hypotheses as presented above.

3. RESEARCH METHODOLOGY

Our hypotheses were tested empirically using a field survey of academic members from different Romanian universities during the year 2012. The sample consists of 34 academic members. The present study employs a personal interview, using a structured questionnaire, to collect data. The study’s dependent variable is university performance. We measured the academic performance as a multidimensional construct. We developed a scale with three items to measure and evaluate university performance. Our scale reflects academic staffs’ perceptions of teaching, research, and service outcomes of university. Respondents were asked: the university’s performance measured by teaching outcomes is high, the university’s performance measured by research outcomes is high, and the university’s performance measured by service outcomes is high. The scale was validated and presented high reliability.

Transformational leadership was measured by using a scale designed by Podsakoff, MacKenzie and Bommer (1996). We used the scales which has five items to determine transformational leadership [11]. Respondents were asked: the university’s management is always on the lookout for new opportunities for the university, the university’s management has a clear common view of its final aims, the university’s management always act as the university’s leading force, and the university has leaders who are capable of motivating the rest of the university, the university’s management succeeds in motivating the rest of the university, and the university’s performance measured by service projects in the organization has grown rapidly.

Organizational learning. Using scales established by Kale, Singh and Perlmutter (2000), we drew up a three items scale to reflect academic staffs’ perceptions of organizational learning in the university [8]. Respondents were asked: the university has acquired and used much new and relevant knowledge that provided competitive advantage over the last three years, the university’s members have acquired some critical capacities and skills that provided competitive advantage over the last three years, and the university was a learning organization.

Innovation orientation. We adapted our scale on Miller and Friesen’s work (1983). We drew up a two-item scale to reflect academic staffs’ perceptions of innovation orientation in the university [10]. Respondents were asked: the rate of introduction of new courses, laboratories in the university has grown rapidly, and the rate of introduction of new teaching methods, specializations, new service and attract the research projects in the organization has grown rapidly.

We used the academic status (professor, reader or lecturer) that control variable reflecting the characteristics of academic staff. Previous studies have indicated that this factor may affect the influence of transformational leadership on academic performance. The questionnaire contained questions in the form of a 7-point Likert-type scale (1=strongly disagree, 2-disagree, 3-somewhat disagree, 4-neutral, 5-somewhat agree, 6-agree, and to 7= strongly agree) regarding the various aspects of transformational leadership, innovation performance, organizational learning, and university performance. The questionnaire provides the perception about academic performance of university, innovation orientation, and organizational learning.

4. ANALYSIS AND RESULTS

All measurements of the construct are based upon the respondent’s opinions. SPSS 20 for Windows was employed for determining relationships among the constructs. Our model examines whether the transformational leadership has an impact on university performance and the effects of innovation orientation and organizational learning on university performance.

Moderation multiple regression was used to test the hypothesized model. The predictor variable (transformational leadership) was regressed against the moderator variables (innovation orientation and organizational learning) and dependent variable (university performance) to establish whether there are effects on university performance. Linear regression is used to specify the nature of the relation between variables.

All these effects must be significant, with the significance of each association between the transformational leadership as predictor and university performance to indicate support for our hypotheses. The results of different hypothesis along with the value of the regression coefficient for our independent variables are presented in Table 1.

### Table 1. Results of regression analysis

<table>
<thead>
<tr>
<th>Control variable:</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic status</td>
<td>0.669***</td>
<td>0.191</td>
<td>0.191</td>
</tr>
<tr>
<td>Direct effects:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformational leadership</td>
<td>0.336*</td>
<td>0.336*</td>
<td></td>
</tr>
<tr>
<td>Innovation orientation</td>
<td>0.423*</td>
<td>0.423*</td>
<td></td>
</tr>
<tr>
<td>Organizational learning</td>
<td>0.05</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Indirect effects (interactions)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformational leadership x Innovation orientation</td>
<td>0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformational leadership x Organizational learning</td>
<td>0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>0.669</td>
<td>0.883</td>
<td>0.883</td>
</tr>
<tr>
<td>Overall R²</td>
<td>0.448</td>
<td>0.78</td>
<td>0.78</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.430</td>
<td>0.75</td>
<td>0.75</td>
</tr>
<tr>
<td>Overall model F</td>
<td>25.92</td>
<td>25.72</td>
<td>25.72</td>
</tr>
<tr>
<td>ΔR</td>
<td>-0.214</td>
<td>0.021</td>
<td>0.021</td>
</tr>
</tbody>
</table>

*p<.05; **p<.01, ***p<.001
The data were examined using moderated hierarchical OLS regression techniques. Control variable (academic status) is entered in Model 1, followed by the three independent variables (transformational leadership, innovation orientation, and organizational learning) in Model 2. The indirect effects were analysis through the interaction terms in Model 3. We predicted two interaction terms such as the transformational leadership x innovation orientations, and transformational leadership x organizational learning.

The inspection of the transformational leadership showed that it has a positive impact on university performance. The relationship between transformational leadership and university performance was positive and significant (b= 0.336; p<0.05). We used the standardized coefficients (beta), for example, b is the value of the regression coefficient associate the transformational leadership. Thus, Hypothesis 1 is supported.

Hypothesis 2 states that the innovation orientation has a positive impact on academic performance. The results indicate that innovation orientation is positively related to university performance (b=0.423, p<0.05), providing full support for Hypothesis 2.

Model 3 provides the results for Hypothesis 3. The organization learning was positively but no significant effect to academic performance (b=0.05, ns). Therefore, the Hypothesis 3 is not supported. Surprisingly, the results show that the organizational learning provide the capabilities as the transformational leaders encourage the academic staff to transfer knowledge create new knowledge and integrate them in teaching processes to develop critical capabilities and skills.

The results also indicate that academic status has no significant effect on university performance (Hypothesis 4). In addition, our research didn’t identify indirect effects of transformational leadership on university performance. That is, the interaction terms are not significant, indicating that university performance can be improved by the direct effects of transformational leadership.

As you can see in Table 1, the multiple regression coefficient, R, is amount of variation to the response that is explained by the three models. We can see that R square range from 0.448 to 0.780 (Model 3). The change in R square is a way to evaluate how much predictive power was added to the model by the addition of other variables.

5. CONCLUSION

This paper developed an integrative framework of transformational leadership and university performance. Our findings present a range of issues that reveal that transformational leadership may motivate rectors, deans, and managers to work harder, exerting more effort and engaged in higher levels of task performance.

We found support for three out of four hypotheses. These results suggest that transformational leadership and innovation orientation can improve the teaching, research, and service performance of university. The current study shows that transformational leadership may facilitate higher levels of creativity and innovation through emphasized the knowledge integration mechanisms into university.

The moderately positive relationships of transformational leadership with university performance suggest that universities should focus on selecting and promoting individuals for upper-level managerial positions with these characteristics (rectors, vice-rectors, deans, and managers).

This result is consistent with prior research that indicates that transformational leadership is associated with organizational performance. We did not find support for Hypothesis 3, that organizational learning has a direct effect on academic performance (possible a sampling error). Transformational leadership interaction ties did not indirectly influence the academic performance.

Our results suggest that universities if they want to cope with rapid changes to adapt to internal and external requests must promote into leadership position the transformational leaders. They have capabilities, vision and skills needed to produce the necessary changes to improve the performance university. Research activities have a critical role to support excellence and academic performance. Without research activity universities risk to fall behind and attract increasingly more difficult students.

Overall, the results of this study provide guidance for rectors and academic staff considering how to identify, design and apply the dimensions of transformational leadership to improve the academic performance.

6. REFERENCES

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