

Social Inclusion in the Information Economy: The Context of University-Industry Collaborations for Regional Innovation

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ABSTRACT

Land grant universities in the 21st century must broaden their scope by facilitating economic growth through innovation in the new information economy. Doing so also broadens the social inclusion goal beyond labor force diversity to include legacy industrial era firms that are vulnerable to exclusion in the new economy that is based on knowledge and innovation. An exploration of barriers to leveraging research universities for revitalizing legacy industrial regions is in process at a midwestern land grant university. It is focused on understanding challenges associated with knowledge exchange between university researchers and legacy industrial era businesses in order to increase the innovation capacity in the region. Preliminary results indicate that communication and culture are two key factors that hold potential barriers to successful industry-academic relationships.

Categories and Subject Descriptors

K.4.2 Social issues; K.4.3 Organizational impacts

General Terms

Economics, Management

Keywords

Economic development, information economy, innovation, social inclusion

1. INTRODUCTION

The original 19th century mandate of land grant universities to improve agriculture evolved in the 20th century to promotion of regional economic development through improvements in industry [6][9][13]. In the 21st century land grant universities must

broaden their scope by facilitating economic growth through innovation in the new information economy [17]. Doing so also broadens the social inclusion goal beyond labor force diversity [16] to include legacy industrial era firms that are vulnerable to exclusion in the new economy that is based on knowledge and innovation. Consequently, universities are engaging in regional development collaborations with industry to support economic growth through innovation [11][3] so as to impact both the regional economy and the health and sustainability of the university [4][11].

In today's economic environment, and especially within economically depressed regions, many small and medium enterprises (SMEs) face immediate issues that must be addressed to remain competitive and in many cases solvent. This raises the question of how universities can best work with industrial era SMEs to address such issues. Specifically, how does the context and nature of this type of relationships change the expectations and behaviors of individuals within both organizations?

While there is much research focusing on issues impacting university-industry relationships with regard to technology transfer, knowledge exchange, and open innovation [1][2][8][12][14], few have focused on the dynamics that present themselves within contexts designed to find answers to specific technical or design issues [5][10]. Relationships where universities and industry are working towards finding a solution to a recognized or specific need present different challenges and issues than "basic research" that extends the understanding of a specific area of study [13]. Because establishing ties to local firms is often considered the "basic building block" of higher education's outreach within a region [3,p.15], creating successful relationships with individual firms is an important first step for regional university-industry collaboration. This is especially important for SMEs and regional economies [3][11].

2. METHODS AND FINDINGS

The literature shows that collaboration in industry-academic partnerships is often complex and difficult to manage [3][7] [14]. The project described here (), is focused on developing a better understanding of the challenges associated with knowledge exchange between university researchers and legacy industrial era

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businesses in order to increase the innovation capacity in the region. A midwestern land grant university worked with three SMEs in an effort to better understand knowledge transfer barriers and facilitators. All three SMEs were seeking solutions for issues currently impacting their ability to remain innovative within their industry while also using cost effective solutions.

Phase I of this project was the period during which the knowledge transfer activities in support of innovation were enacted (2008-2009). During Phase II of this project, which began in 2009, interviews with the industry and university partners are being conducted to examine barriers to leveraging research universities for revitalizing legacy industrial regions. The research question governing this phase of the project is: *What are the barriers to leveraging research universities for revitalizing legacy industrial regions?*

These cases represent a unique opportunity to examine specific behaviors that may signal potential issues within such collaborations. Focus groups conducted with industry and economic development agencies while the grant was being developed produced a set of themes that were explored during interviews with industry and academic partners in Phase II of this project. These themes are: effectiveness of academic-industry partnership, communication between academic and business communities, barriers to the flow of scientific knowledge from the university to industry, and barriers to human resource diversity. Interpretive thematic analysis of interviews with industry and university representatives as well as project documentation (e.g., proposals, contracts) identified specific project management processes used throughout the collaboration. Themes related to communication, industry/academic culture and project management were identified with the aim of defining both synergies and potential disconnects between parties in terms of achieving stated objectives within this specific context.

While data collection and analysis is still underway, preliminary results indicate that communication and culture are two key factors that hold potential barriers to successful industry-academic relationships. First, open and ongoing communication is essential to clarifying goals and maintaining a consistent understanding of project objectives over time and changes in circumstances and personnel. In addition to formal communication channels, informal communication is achieved through alumni networks, student internships and placement at the company sites, and industry partners lecturing part time in the university. Second, differences in academic and industry cultures, with related differences in objectives, measures of performance, and time frames can impair industry incentive to remain committed to the relationships, despite the potential benefits. Finally, it was found that unexpected externalities such as the economic recession need to be incorporated into the enactment of the industry-academic collaborations.

3. CONCLUSION

Understanding the key collaborative areas where potential disconnects may develop between diverse organizations as well as the contexts in which they develop can help land grant universities to better fulfill their 21st century outreach mission. Understanding and managing expectations related to project management processes such as timelines and updates, and open communications are avenues requiring further investigation in order to clarify the unspoken assumptions that often lead to misunderstandings and failed collaborations.

4. ACKNOWLEDGMENT

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