

# **Value-Integration Model of Human-Centered “Teaching-Research-Service”: A Case Study of Taxi in Taiwan**

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## **Abstract**

In the research field of general management, it is an approach not taken frequently by studying practical phenomena anchoring on an academic-industrial cooperation program. However, the academic-industrial cooperative research is the most likely to create integrated values among teaching, research, and service activities as a whole. This reflective article attempts to explore, through the value co-creation perspective, that how a faculty in business school can conduct an academic-industrial cooperative research program proceeding from real phenomena in reality. Moreover, how faculty can effectively integrate teaching-research-service activities together in order to generate synergy among them. In conclusion, by demonstrating a systematical taxi research program conducted by author, this article will propose some thoughts for academic professionals to reflect how to keep a balance among three roles, being a teacher, researcher, and service provider.

*Keywords:* Academic-industrial cooperation, value co-creation, and Service science

## **Research Purposes**

In the field of general management, practically oriented industry-based research has long proven unpopular. However, such research integrates teaching, research and

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service, and allows researchers (i.e., business school professors) to work for the benefit of academic knowledge, society, and industry. University professors are expected to fulfill three major responsibilities: teaching, research, and service. To students, a university professor is an educator who delivers knowledge and helps solve problems. To research colleagues, a university professor is a skilled investigator engaged in knowledge creation and the exchange of knowledge within the academic community. To community members, a university professor is an administrator and contributor both within a given academic institution and to the broader external community. In sum, the career of a university professor is composed of teaching, research and service, and the creation and exchange of value within the academic profession. However, finding balance and creating synergies among these three responsibilities has proven challenging for many university professors, and particularly for those professors in the field of management.

This research will demonstrate how a management professor can start with a practical phenomenon to conduct a consistent, long-term collaborative research project with industry and interest group communities from the perspectives of value creation and value exchange. Moreover, it will demonstrate how such a project will, almost undoubtedly, lead to the successful integration of teaching, research, and service, to the overall benefit of the scholar. We will explain how an engaged, cross-sector strategic plan resulted in industry-university value creation and value exchange. In addition, the challenges of integration and implementation will also be discussed.

## **Approach and Methodology**

Although some scholars have identified a need to bridge the gap between industry practice and academic theory (e.g., Antonacopoulou, 2010; Antonacopoulou, Dehlin & Zundel, 2011), the processes by which this gap may be bridged remain largely unexamined. We borrow the diamond framework, with its five strategy elements, from Hambrick and Fredrickson (2005), and the diamond model from the perspective of engaged scholarship from Van de Ven (2007) to discuss the effective construction of industry-university collaborative activities related to research, teaching and service. This study is largely based on the author's 11-year (2003-2013)

longitudinal research on the taxi industry in Taiwan. This long-term qualitative field study has been conducted at the industry, community, team, and individual level of analysis.

## **Findings**

### **1. Value Creation**

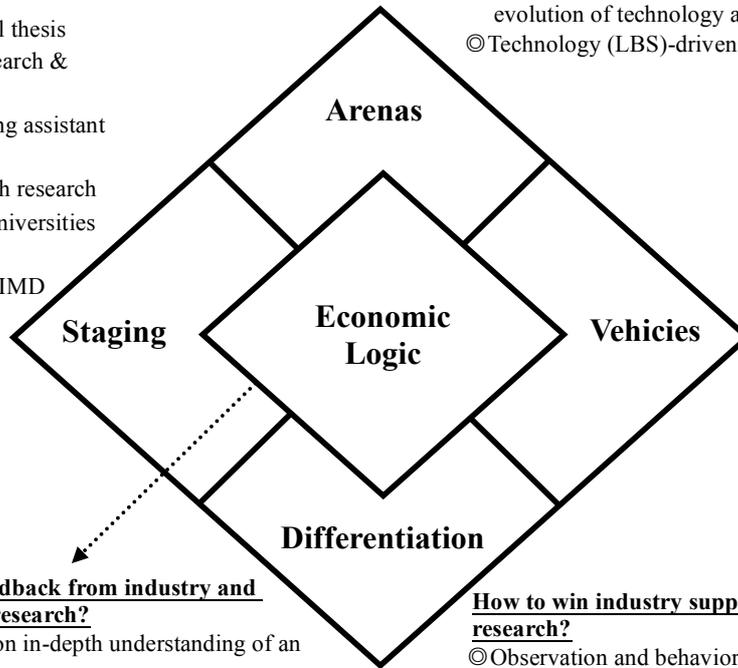
The following ex-post summary, which makes use of the diamond framework (Hambrick & Fredrickson, 2005) and engaged scholarship (Van de Ven, 2007), discusses how to engage in value creation and value exchange via industry-university collaboration. First, we use the diamond framework to explore strategic planning in industry-university collaboration. Figure 1 summarizes the long-term journey of the author's taxi industry research.

**How to implement with ongoing adaptation?**

- ◎ 8-month research and field-study at Singapore University
- ◎ Writing a doctoral thesis
- ◎ Post-doctoral research & reflections
- ◎ Publications during assistant professor stage
- ◎ Collaboration with research teams across universities
- ◎ Research center establishment: SIMD

**Where to do research?**

- ◎ Taxi industry
- ◎ Comfort at Singapore vs. Taiwan Taxi Co.
- ◎ Satellite dispatching technology & dynamic evolution of technology and organization
- ◎ Technology (LBS)-driven service innovation



**How to acquire long-term research project?**

- ◎ Focus on one industry
- ◎ Research project and funding granted by public institutions
- ◎ Taxi drivers' working practices
- ◎ Organize research teams with doctoral students in one or more universities
- ◎ Long-term tracking & commitment with a decisive mind

**How to get feedback from industry and academic research?**

- ◎ Concentrate on in-depth understanding of an industry
- ◎ Research insights from ONE long-term focus
- ◎ Reduce research barriers and cost of data collection by industry reputation
- ◎ Strengthen identity from the support of industry organizations based on research ethics & professionals
- ◎ Take personal interest in taxi drivers and upgrade industry social status in order to balance multiple interests among stakeholders

**How to win industry support on collaborative research?**

- ◎ Observation and behavior recorded through deep involvement in taxi drivers' community with an anthropology approach
- ◎ Acquire research funds from the public sector in order to maintain neutral & independent status of research ethics & professionals
- ◎ Pay attention to minorities and those of low social status through deep involvement with communities on a long-term basis
- ◎ Committed companions to establish trusting relationships with taxi drivers and fleets
- ◎ Personal care demonstrated in individual cases

Figure 1. Industry-University on the Taxi Project: Strategic Analysis via Diamond Framework

## 2. Value Exchange

The value creation and value integration of the "teaching-research-service" call is analyzed using the diamond framework, based on Hambrick and Fredrickson (2005). However, the value exchange associated with industry-university collaboration across sectors is better captured by the engaged scholarship model suggested by Van de Ven (2007). Three characteristics of an engaged scholarship process can be examined by

using the case of the collaborative taxi industry research.

In the case of this research collaboration, the researcher integrates the "teaching - research - service" value activities in a value exchange with the industry in a collaborative manner. Table 1 shows a number of industry phenomena-based research ideas with roots in the long-term process of the industry-university collaborative journey. In addition to the publication of journal articles, many of the ideas were also translated into curriculum design and teaching cases. The outcomes of some ideas are also evident in technology, patents, and software applications. Based on these various forms of output, the researcher can provide further collaborative assistance to firms and communities through training, professional development events, and the design of new teaching materials. Moreover, additional socially oriented services can be developed by duplicating and refining the company- and community-specific training programs.

Table 1: Output from the “Teaching-Research-Service” Model and Value Exchange in Taxi Industry Collaborative Research

Academic Researches	Teaching Cases	Technologies / Practices / Services
<p>Technology Interpretation (Individual Level)</p> <ul style="list-style-type: none"> <li>• Sensitive Cabbies (<i>Information and Organization</i>, 2008)</li> <li>• Evolving Technology Sense-making (<i>Journal of Information Management</i>, 2011)</li> <li>• The antecedents and consequences of negative technology sense-making (<i>Management Review</i>, 2011)</li> </ul>	<ul style="list-style-type: none"> <li>• «Technology Sense-making» (Pearson, 2008)</li> <li>• Taiwan Taxi Fleet(Market Intelligence &amp; Consulting Institute, 2007)</li> </ul>	<ul style="list-style-type: none"> <li>• Technology Patent (1 approved, 2 applied)</li> <li>• Taxi app R&amp;D (2)</li> <li>• “Good Lucky/ Driver Web” taxi service website in operation (<a href="http://www.taxi.org.tw">www.taxi.org.tw</a>) (since 2010)</li> <li>• Association for Taipei Transportation Development, council member (2007-present)</li> <li>• Metropolitan Taxi (2009)</li> <li>• Sunday Movies of Taxi (monthly, 2009-2011)</li> <li>• Publication: CD-voice book titled “Good Luck/ Driver” (2011)</li> </ul>
<p>Job Innovation (Team Level)</p> <ul style="list-style-type: none"> <li>• Time-Place Context, Technology Sense-making, and Work Practice (<i>Management</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sensitive Cabbies in Taiwan)( Market Intelligence &amp; Consulting Institute, 2008)</li> </ul>	<ul style="list-style-type: none"> <li>• Care programs for taxi drivers affiliated with Taiwan Taxi Company (since 2009)</li> <li>• Companion program with</li> </ul>

	<ul style="list-style-type: none"> <li>Review, 2009)</li> <li>• With the Good We Become Good (<i>NTU Management Review</i>, 2014)</li> </ul>		<ul style="list-style-type: none"> <li>taxi drivers based at rural regions, Hualien and Taitung (collaborate with Alliance Foundation since 2011)</li> </ul>
Service Innovation (Organizational Level)	<ul style="list-style-type: none"> <li>• Service Inventory (<i>NTU Management Review</i>, 2010)</li> <li>• Psychological Ownership and Franchise Growth (<i>International Journal of Entrepreneurial Behaviour &amp; Research</i>, 2009)</li> <li>• Empirical Study of Service Inventory (Working paper)</li> <li>• Accumulation and Interaction of Intellectual Capitals (<i>Management Review</i>, 2013)</li> </ul>	<ul style="list-style-type: none"> <li>• Taiwan Taxi's Social Influences (Ministry of Science and Technology, 2008)</li> <li>• Taiwan Taxi's iCall system (Ivy/NCCU Case Collection)(2010)</li> </ul>	<ul style="list-style-type: none"> <li>• Companion program for participating taxi drivers of Eastern Taiwan Private Trip (since 2012)</li> <li>• Strategic Consensus Camp for managers at Taiwan Taxi Company (2011 &amp; 2013)</li> <li>• Taxi Driver Service Training Camp (two times in 2011)</li> <li>• SIMD at Feng Chia University (since 2012)</li> <li>• <i>Taiwan Taxi Academy Association</i> (since 2014)</li> </ul>
Technology Transfer (National Level)	<ul style="list-style-type: none"> <li>• Cross-border Technology Adoption (Working paper)</li> </ul>	<ul style="list-style-type: none"> <li>• Comfort Taxi in Singapore)( Ministry of Science and Technology, 2008)</li> </ul>	

### 3. Value Integration of "Teaching - Research - Service": People at the Center

Van de Ven (2007) argued that a collaboration-oriented value exchange in an industry-university collaboration is superior to an attitude exchange-oriented collaboration. In keeping with this argument, we contend that a trust-based collaboration-oriented value exchange can further enhance the integration of "teaching- research- service" for a university researcher. However, our research proposes a human-centered integrative model of "teaching – research – service." This sets us apart, to some extent, from Van de Ven (*ibid.*) as we seek to correct a history of overly academic publications and move toward a more human-centered approach, as shown in Figure 2.

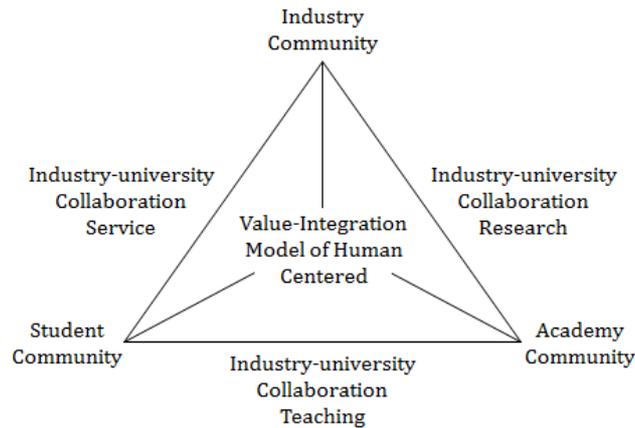


Figure 2. Value-Integration Model of Human-Centered “Teaching-Research-Service”

## Implications

Value creation is the primary outcome demanded by cross-sector collaborations (Austin, 2010). Researchers play a key role in determining how value is created and exchanged via the process of industry-university collaboration. Hambrick and Fredrickson (2005) provided a diamond framework of strategic analysis that allows us to make plans and decisions that integrate "teaching-research-service" into a single role. In addition to intra-organizational strategic analysis, we further adopt the engaged scholarship concept based on Van de Ven (2007) to examine the value exchange of inter-organizational relationships (namely, industry-university collaborations) with an emphasis on how researchers and practitioners can explore phenomena-based issues in academic research (Van de Ven & Johnson, 2006). However, these analyses still demand a value integration model with humanity at the center to comprehensively explain value exchange and creation, as shown in Figure 2.

## Contributions

Lindblom and Cohen (1979) asked: *Why are academic researchers not satisfied with limited responses from practitioners regarding knowledge based on academic research outcomes?* The problem of a disconnection between academic research and industry practice stems from the distinct interests and domains of the two communities, as well as from significantly different communication styles, which may hamper understanding and familiarity (Antonacopoulou, 2009; Austin, 2010).

Industry-university collaborations can help to bridge the gap, providing a new opportunity based on a particular industry-based research program. However, such an approach is far more easily taken in theory than in practice, as it requires the determination of a (likely lonely) researcher over the course of years and decades. As the American poet Robert Frost (1874-1963) pointed out in “The Road Not Taken,” we choose our own roads and set out on lives of unknown directions and futures. As we reach the crossroads of our academic careers, the direction we choose should be that which enhances our professional standing along our chosen path. Particularly in the field of general management, phenomena-based industry-university collaborative research is a relatively unpopular option, but a lonely road might lead to value creation and value exchange through the creation of a single “teaching-research-service” identity, creating, through determination and commitment, a wise and powerful traveler.

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