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## Emily Puckett SI 657: Information Technology and Global Development Summary: Brimble and Donner "University-Industry Linkages and Economic Development: The Case of Thailand" February 15, 2010

This article addresses opportunities and challenges for the creation and maintenance of UILs (universityindustry linkages) in Thailand. Through interviews and analysis of historical and current industry, governmental and university trends Brimble and Donner outline the importance of UILs, especially with regard to NIS development within Thailand; however, the authors are not optimistic about the wide-scale adoption of UILs due to several constraints including lack of cohesion in the private sectors (section 4[a]), lack of capacity and interest from the educational and technology institutions (section 4[b]) including finding dedicated staff, changing perceptions of private-educational partnerships, and issues of university autonomy, lack of interest in RTOs (Research Technology Organizations) as sources of innovation (section 4[c]), and finally bureaucratic (section 4[d]) and political obstacles (section 4[e]) including a populist approach to governance and the influence of the private service industry in the government. In order to compete on a global scale, Thailand must focus on strengthening the NIS through UILs that "involve addressing collective action problems among producers, helping to strengthen the position of local manufacturing interests in the present governing coalition, and building on pockets of efficiency within a bureaucracy characterized by ministerial turnover and agency fragmentation" (p. 1023). These priorities are similar to those outlined in Spielman: "focusing the public sector on setting research priorities and mobilizing resources . . ., engaging the private sector in the execution of propoor research, and generating synergies across sectors wherever possible" (p. 201). While Brimble and Donner don't directly discuss knowledge production as Spielman does, it is nonetheless an important concept to apply as a facet of the Thai UIL case; the form of knowledge production "determines the ability of producers, consumers, and society as a whole to appropriate the benefits in a shift in production possibilities that results from the application of knowledge to socioeconomic processes" (p. 194).

However, Brimble and Donner utilize most of the article to outline examples of industry-specific approaches to UILs to outline both opportunity and disadvantaged spaces for industry innovation through such linkages. The King Mongkut Institute of Technology (KMUTT) is an example of an autonomous university that has "worked hard to put in place the systems—financial, personnel, overall governance, etc.—to create a cadre of professional academics that are incentivized to undertake a mix of top-quality academic work as well as reach out more to the community and to business" (p. 1031-1032). Other positive examples of UIL activity (mostly in terms of nascent linkages) in Thailand include the agriculture and agro-industry, namely the sugar (through innovative strategies employed by Mitr Phol, a sugar miller) and shrimp industries (that developed strong linkages with Mahidol University, established Centex Shrimp, and capitalized on a strong, centralized business group and motives, an incentivized academic research base, public sector interest, little intra-industry problems and the support of "a quasi-public facilitator, BIOTEC" [p. 1026]). An example of an attempt at developing UILs that has yet to succeed is the Thai auto industry (p. 1026-1027) and the textiles/apparel industry (p. 1027-1029). A final example of challenges to developing UILs is represented by the microelectronics industry in Thailand (p. 1029-1030). This industry is mostly foreign owned, lacks a champion and is prone to skepticism about the quality and usefulness of university resources (p. 1029). Seagate is, to the authors' knowledge, the only example of UIL initiatives within this industry. Seagate works with five universities to provide curriculum support and development that fosters training toward engineering positions at Seagate. Seagate has also established two R&D centers with partnering universities. A second example of UIL initiative involves the global HDD industry association coordination with several Thai disk drive producers.

Brimble and Donner do not attribute the lack of UILs solely to size or foreign ownership of these industries but to a general "lack of cohesion within and among sectors" (p. 1030). And while Wagner's theories of the Invisible College are intriguing, the Thai case for lack of innovation as presented by Brimble and Donner provide legitimate refutation of the usefulness of this approach that presumes governments are not going to be policy-averse to developing such global networks of research. Additionally, the Brimble and Donner studies illuminate the focus in Thailand on internationally focused, centrally coordinated industries, businesses, and policy efforts that hinge on the silence or inactivity of very locally based or indigenous market efforts in these industries.