



LITERATURE REVIEW: THE PARADOX OF SOCIAL NETWORK TIES IN CREATING KNOWLEDGE

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In view of increasing globalization and intense competition, knowledge is becoming more and more important for firms competing in a rapidly changing environment. What makes a firm predominant in markets is not the capacity for reducing costs, but the capacity for managing knowledge

(Kogut, Zander, 1996, Grant, 1996, Rutten, 2004, Spender, 1996, Cohen, Levithal, 1990).



Researchers recently have pointed out that social network ties are a key factor in understanding and managing knowledge creation process (Tsai, Ghoshal, 1998, Tsai, 2001, Nahapiet, Ghoshal, 1998, Gulati, 1995, Koka, Prescott, 2002, Owen-Smith, Powell, 2004).

The aim of this conceptual paper is to examine the extant literature concerning social networks and knowledge creation to develop a tentative model which presents the conditions affect the decision of utilizing strong or weak ties.



KNOWLEDGE CREATION

Knowledge is defined as

“a justified belief that increase an entity’s capacity for effective action” (Nonaka, 1994).




Features of Knowledge;

- socially spread and influenced by social settings,
- a social construction, embedding in lasting relationships,
- developed through participation in “communities of practice”,
- catalyzed by the development of network organizational structures,
- continuously changing from individual to social, from tacit to explicit (Shawney, Prandelli, 2000).



Knowledge Creation:

Nonaka and his friends (2000:1179) conceptualize knowledge creation as “the process of making available and amplifying knowledge created by individuals as well as crystallizing and connecting it with an organization’s knowledge systems”.



SOCIAL CAPITAL $\xrightarrow{?}$ KNOWLEDGE CREATION

As Powell (1990: 304) states:

“Networks are particularly apt for circumstances in which there is a need for efficient, reliable information. The most useful information is rarely that which flows down the formal chain of command in an organization, or that which can be inferred from price signals. Rather, it is that which is obtained from someone you have dealt with in the past and found to be reliable. You trust information that comes from someone you know well”.



SOCIAL CAPITAL

In this paper, a definition of social capital offered by Nahapiet and Ghoshal (1998:243) is accepted: “Social capital is the sum of the actual and potential resources embedded within, available through and derived from the network of relationships possessed by an individual or social unit.”



The Dimensions of Social Capital:

- **Structural Dimension:**
- **Relational Dimension**
- **Cognitive Dimension**

Network Ties: The concept of tie strength has been considered as a basic feature of social relationships. Granovetter (1973) identified the strength of ties as “the combination of mutual obligations, intimacy, emotional intensity and the amount of time”.

The Benefits and Costs of Weak/Strong Ties

Benefits

Costs

Weak Ties

- Accessing novel/diverse information
- Searching for new opportunities
- Providing autonomy
- Flexibility to shift exchange sources
- Less Costly
- Transferring of codified knowledge

- Lack of mutual obligation
- Lack of trust
- Inhibiting the transfer of tacit knowledge
- Restricting to build long-term relationships

Strong Ties

- Promote cooperation in an exchange
- Include trust, reciprocity
- Enhance knowledge sharing, joint-learning between firms
- Transferring of tacit knowledge
- Implement strategic initiatives

- Inefficient for transferring codified knowledge
- More costly
- Brings redundant information
- Constrain new knowledge flowing
- Lack of opportunity to shift knowledge sources



THE PARADOX OF NETWORK TIES IN KNOWLEDGE CREATION PROCESS

Today a firm's alliance partners are the most important source of new ideas and information that result in innovations (Argote, Apple, 1995, Lane, Lubatkin, 1998, Dyer, Singh, 1998, Ayvany, Jyrama, 2005, Nielson, 2005).

Research Question: Should firms forge strong or weak ties in their inter-organizational relationship to strengthen their knowledge creation capability?

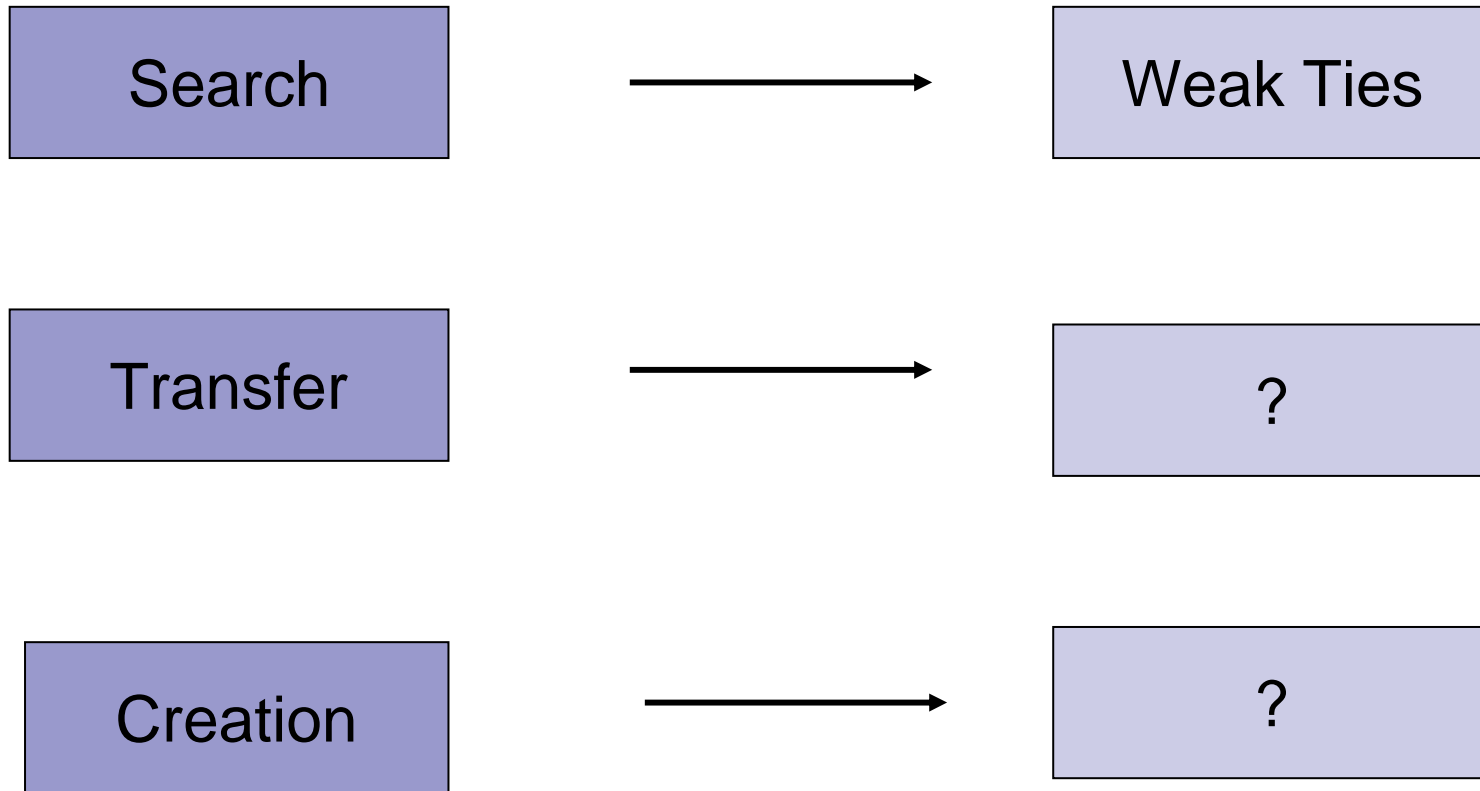


To follow a contingency approach is more conducive to utilize social ties in knowledge creation process.

Some important factors have to be examined in building the optimal network structure:

- *The Process of Knowledge Creation*
- *The Type of Knowledge*
- *Knowledge Creation Strategy*
- *The Life-Cycle of the Firm*

A) The Process of Knowledge Creation

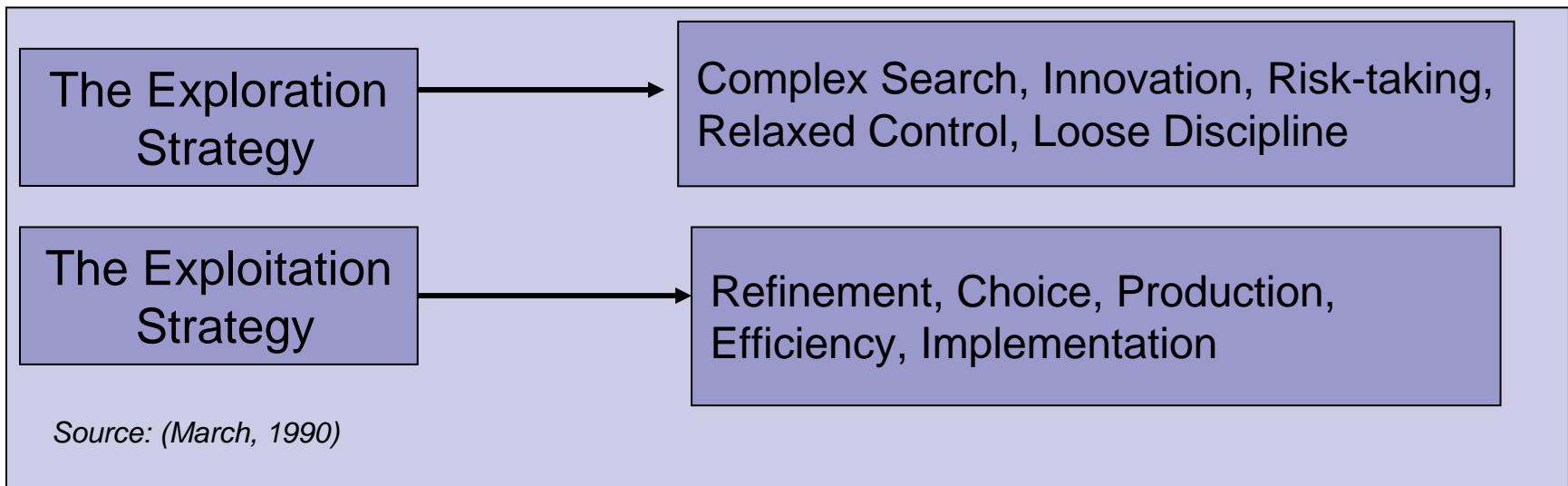


B) The Type of Knowledge

	Codified	Noncodified
Search	Weak Ties	Weak Ties
Transfer	Weak Ties /Strong Ties	Strong Ties

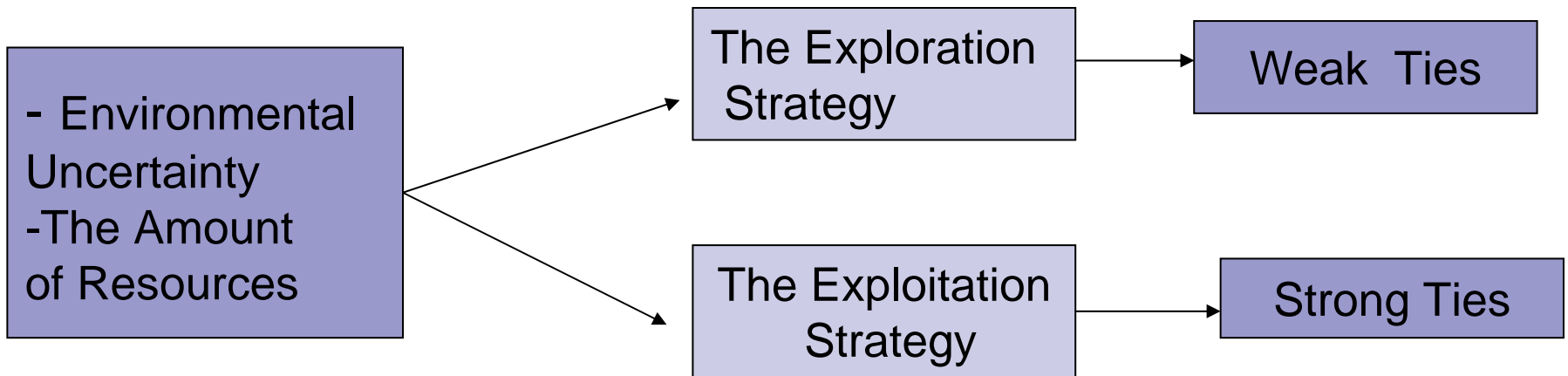
Adopted from : Hansen, 1999, Uzzi&Lancaster,2003, McEvily&Reagans, 2004, Kauffeld-Monz, 2005, by the author.

C) The Knowledge Creation Strategy



This exploration-exploitation dilemma assumes a strategic choice according to environment turbulence. Firms require these two types of knowledge; exploitation brings the use of current knowledge, whereas exploration brings the use of historical knowledge that is unforgotten or uncovered. The sine qua non point is to balance these two strategies in knowledge creation process (Nerkar, 2003, Lewin, Carroll, 1999, Levinthal, March, 1998, March, 1991).

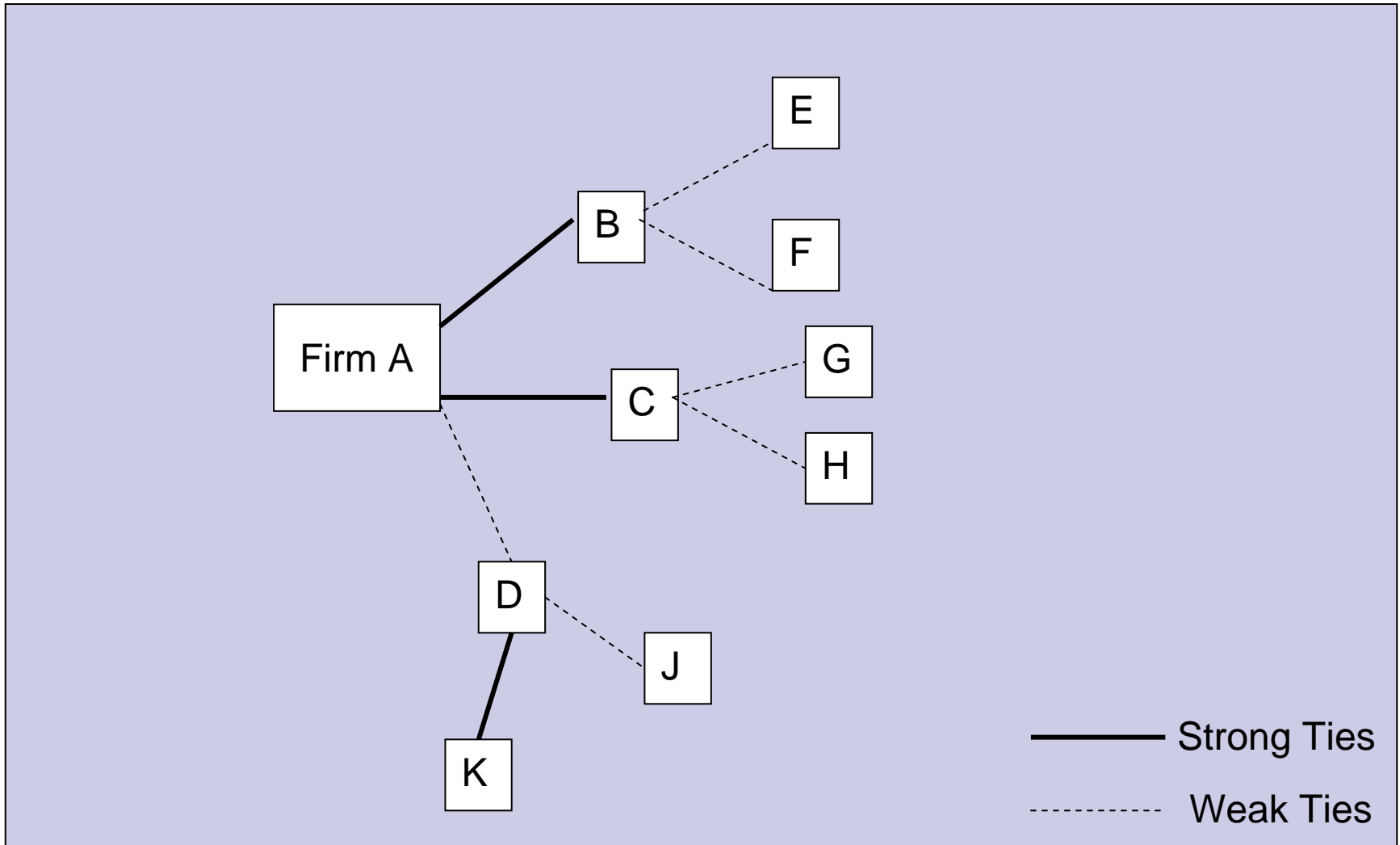
Relationship between Knowledge Creation Strategy and Weak/Strong Ties



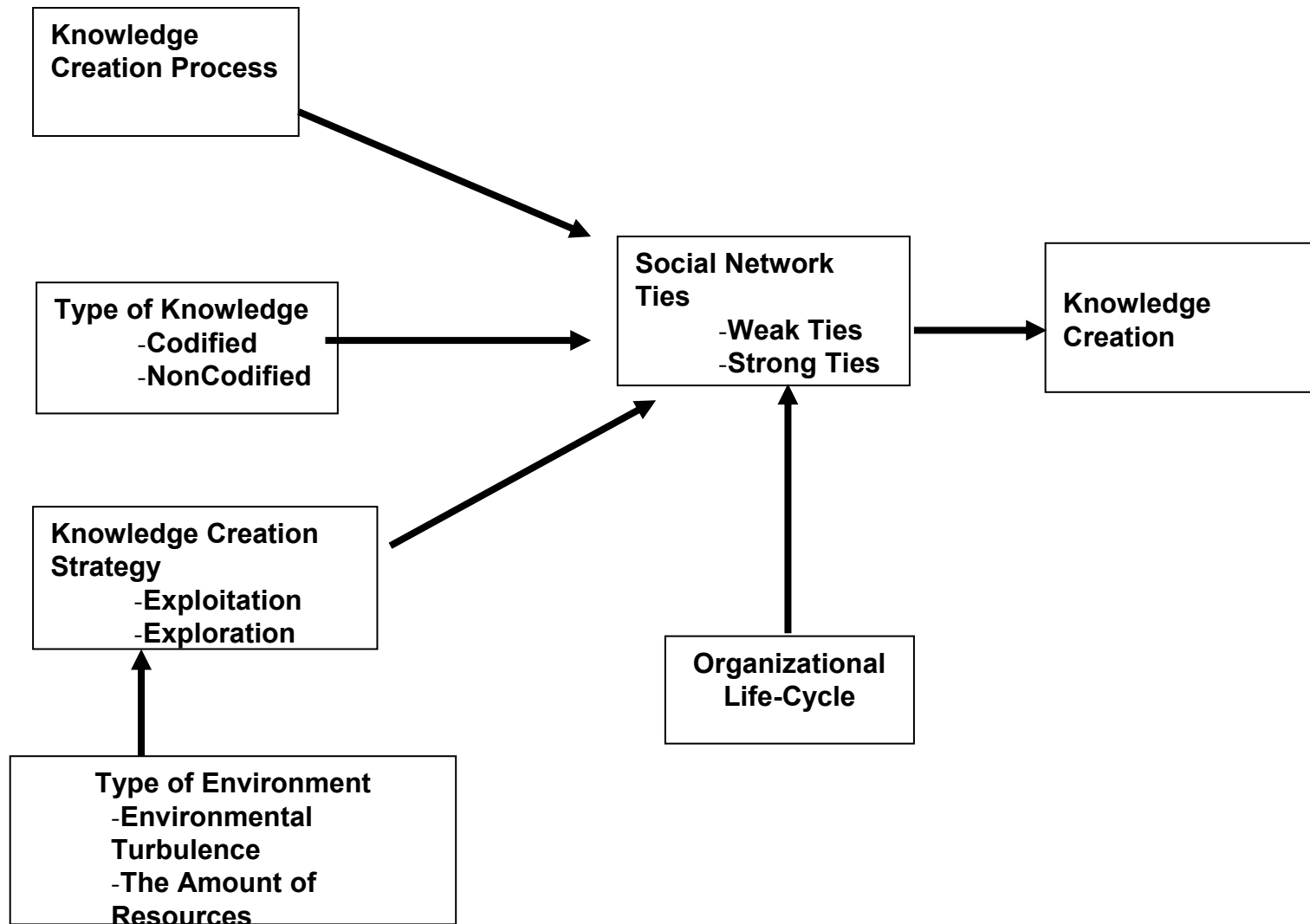
D) The Life-Cycle of the Firm:

Emerging firms need strong ties since they have less reputation and less power. When emerging firms began to grow and come to an early grow stage, and then weak ties become important according to access a wide range of resources (Jensen, Koenig, 2002, Lechner, Dowling, 2003, Hite, Hesterly, 2001).

** The Optimal Network Structure:



E) Development of a Tentative Model of Knowledge Creation and Weak/Strong Ties





IMPLICATIONS FOR PRACTICE AND RESEARCH

According to the literature of social networks and knowledge creation, network ties provide benefits associated with knowledge acquisition and creation. However, the relationship between strength of tie and knowledge creation has been exposed to contradictory findings. As some scholars suggest, weak ties are more beneficial in providing novel and diverse information; whereas strong ties are more beneficial in transferring tacit and specialized knowledge due to trust and reciprocity they consist of. Since different benefits are embedded in each type, to develop a model that shows the conditions to adjust the mix use of weak and strong ties can enhance the ability of performance of knowledge creation.