# Modeling transformational relationship between incubator and local government based on knowledge sharing for social capital advocacy

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## Abstract

In recent years, on the basis of development necessities and the framework for the national innovation system in Iran, the science and technology parks and incubators are rapidly growing across the nation. At the same time, local governmental organizations, due to the international circumstances, new theories and policies are growing, developing and moving toward federalism. The existing knowledge sharing tendency in the technology business Incubator, as service provider, and the local governmental organization as service receiver makes the development of new approach necessary to study a new mechanism and structure for knowledge sharing and the replacement of the relationship from transactional to transformation between two entities. This study examines the relationship between knowledge sharing and outsourcing success, using a sample of 120 local governmental organizations in Zanjan. The result of research offers a model for transformational relationship between incubators and local governmental organizations for social capital advocacy.

*Keywords:* transformational relationship, local government, technology business incubator, outsourcing

## 1. Introduction

The expansion of communication technology and the mass of information that has been produced and transferred by such expansion has substantially reduced the revival and reinventing time for many fields in the mankind's sphere of knowledge. This rapid change has made the information, knowledge and technology along with the knowledge-workers to be the primary resources for achieving the competitive advantages for knowledge based organizations' development. On the basis of such necessities and the framework for the national innovation system in Iran, the science and technology parks and incubators are rapidly growing across the nation. The development and expansion of these institutions, their governing principals and the complexity of their configurations, in their relation with the existing markets, academia and governmental institutions are creating the interdisciplinary and bi-systemic interaction issues. When such interactions are conducted in their most effective way, there would be a wide range of opportunities for creating social capital through the gateway of knowledge sharing and organizational capabilities in an atmosphere of trust. At the same time, local governmental organizations, due to the international circumstances, new theories and policies are growing, developing and moving toward federalism. For these organizations to implement ICT services, they need to outsource and for their organizational development need the organizational learning. The existing knowledge sharing tendency in the technology business Incubator, as service provider, and the local governmental organization as service receiver makes the development of new approach necessary to study a new mechanism and structure for knowledge sharing and the replacement of the relationship from transactional to transformation between two entities. In recent years there has been an increasing interest in ICT outsourcing among Iranian public- organizations. Based on this increasing interest and the expansion of communication technology and the mass of information, ICT outsourcing is one of the major issues facing organizations in today's rapidly changing business

environment. ICT outsourcing, which is defined as the process of turning over part or all of an organization's ICT functions to external service provider, is done to acquire economic, technological, and strategic advantages. While a major driver for outsourcing until 2000 was cost-effective access to specialized computing power or system development skill, the growth of ICT outsourcing in the first decade of the 3$^{rd}$ millennium results from the acceptance of quality alliance. Accordingly, increasing attention has been paid to building a successful partnership between the customer and the provider of ICT outsourcing services. Several SME'S in some incubators which are encouraged by their managing team and consulters have established intimate relationships with their customers as in the Zanjan ICT incubator. Mutually, local governmental organizations seek this type of flexible relationship, usually in the form of a partnership with their service providers in ICT incubators after identifying any limitations and stating them in a legal contract. In an overall view, there has been much interest in knowledge sharing through outsourcing partnership and its effect on outsourcing success. The knowledge sharing between the service receiver and provider is considered as one of the major motives of the outsourcing partnership based on mutual trust. However, knowledge sharing among different organizations is not an easy task. That is based on organizational context, and thus that knowledge cannot easily be transferred among organizations with different cultures, structures, and goals. Therefore, for successful knowledge sharing in an outsourcing partnership, both the service receiver and provider should have a clear common vision and goals for partnership as well as a belief that their partners will not act opportunistically; this may be termed partnership quality. Another key source of successful knowledge sharing is an organizational ability to learn or acquire the needed knowledge from other organizations that have been described as an absorptive capability which is an organization's ability to recognize the value of new internal information, assimilate it , and apply it to commercial ends for the organization's innovative capability . To evaluate and utilize outside knowledge, an organization should have the ability to exploit external knowledge that is largely a function of the level of prior related knowledge. As the nature of the outsourcing relationship shifts from a contractual to a partnership-based relationship and the importance of knowledge sharing through the outsourcing partnership is emphasized, the degree of both partnership quality and organizational capability in ICT outsourcing is of fundamental importance.

In this article, we begin with the definition of technology business incubator and conceptualization of local government on three levels, appointive local administration, specific board, and selective local government and also definition and conceptualization of knowledge sharing and organizational capabilities, then determining the reliability of research structure in the framework of statistical analysis from actual field research. Next we examine the effect of knowledge sharing between ICT divisions of local governmental organizations and the SME's belonging the technology business incubator's network, in the areas of improving the performance and fulfilling the expected value from ICT outsourcing which are the result of analysis drawn from the responses gathered from the questionnaires that were distributed among the ICT divisions managers of 120 local governmental organizations in Zanjan province. The result obtained from this research has led us to the development of a model of interaction between technology business incubator and local governmental organizations in development of social capital based on organizational capabilities and knowledge sharing between SME's and ICT divisions.

## 2. Key concepts

### 2.1. Technology Business Incubator (TBI)

Technology Business Incubators are organizations that support the entrepreneurial process, helping to increase survival rates for innovative startup companies. Only entrepreneurs with feasible projects are admitted into the incubators, where they are offered a specialized menu of support resources and services. The resources and services open to an entrepreneur include: provision of physical space, management coaching, help in making an effective business plan, administrative services, technical support, business networking, advice on intellectual property and empowerment on financing, and by training, consulting and other necessary services.

The incubation process is intended to last around 2-5 years. Business incubators can be private or public. Private incubators are for-profit firms which take equity or receive a fee for the business services they provide to their clients. In essence, they are a consulting firm which is specialized in new firm creation. In the last twenty years, many developed and developing countries have started large systems of public business incubators to encourage and assist entrepreneurship. In many cases, public incubators are designed to stimulate the development of new products and services in high-tech industries. For science-based business incubators, an effective collaboration with universities and research institutions is essential to motivate researchers into taking the risk of initiating a company. Incubators have many partners in addition to universities. Since new firms require finance to grow, incubators have close relationships with many kinds of investors. Seed capital and venture capital funds, business angels, and banks provide most of the seed and start-up capital for incubated companies. Since business incubators are powerful economic development tools, they collaborate actively with regional and national government agencies, from which they often receive financial grants. In many countries, business incubators have national associations to represent their interests and organize meetings where best practices are disseminated. Evaluations of business incubators in Europe and the U.S. suggest that 90% of incubated startups were active and growing after three years of operation, which is a much higher success rate than that observed in startups launched without assistance. Science-based business incubators are thought to be particularly useful from a policy perspective because they can simultaneously promote knowledge diffusion, technology transfer and high-tech firm creation. In Iran, along the 10 past years, there have been 40 technology incubators growing around the nation, supporting about 500 SME's , all of which are public incubators and licensed by ministry of Science and Research and Technology.

## 2.2. Local government

There are some different approaches on conceptualization of local governments. But we can find some common characteristic among them. In fact, all of them behave as an "existence as an organized entity", seeking "autonomy" and have "governmental character". Based on these common characteristics we can define them as an organized entity with financial and administrative _not political_ autonomy for public local service providing [1]. Local governmental organizations are defined under the concept of "state" and "government". These organizations are established on special act uniform charter, classified charter, optional charter and home rule. However, we can categorize them on the basis of authority in two types: corporation local government, quasi- corporation local government [4] and based on political approach and responsibility rate, we can categorize them on 3 levels [3],[5]: appointive local administration e.g. province governing administration, specific board e.g. public telecommunication company, and selective local government e.g. Islamic Consulting Board of Cities

## 2.3. Transformational relationship

In the marketing area, the partnership style relationship is based on social exchange theory rather than an economic perspective, such as transaction-cost theory or agent-cost theory. The social exchange theory is used to explain why organizations enter into a closer relationship. This theory sees the relationship as a dynamic process through specific sequential interactions in which two participants carry out activities with one another and exchange valuable resources. This assumes that processes evolve over time as the actors mutually and sequentially demonstrate their trustworthiness while the exchange activities among organizations are enforceable from the economic perspective. [14] According to Blau, social exchange theory is based on the concept of ``trust'' to explain the exchange relationships among participants. It has been conceptualized as the firm's belief that the other company will perform actions that will result in positive outcomes, and will not take unexpected actions that would result in negative outcomes [9]. Trust plays a critical role in the development of a long- term relationship and in facilitating an exchange relationship. Therefore, trust is a basic concept in separating the relationship type into a transactional-style or a partnership-style relationship which

evolves through mutually satisfying interactions and increasing confidence in the relationship. On the basis of the aforementioned facts we can define transformational relationship.

## 2.4. Knowledge management

Knowledge management is the process of capturing, storing, sharing, and using knowledge. Here, a major management issue is how to change individual knowledge into organizational knowledge, since organizational knowledge is inherently created with and resides in individuals. Another issue is how to integrate and manage organizational knowledge so that it results in a successful performance. Here, we define knowledge sharing as activities of transferring or disseminating knowledge from one person, group or organization to another. This definition broadly includes both tacit and explicit knowledge. However, according to the definition of Nonaka and Takeuchi, tacit knowledge is personal, context-specific, and therefore hard to formalize and communicate whereas explicit knowledge can be described as knowledge which is transmittable in a formal, systematic language. [8] Polanyi also asserts the only way to learn tacit knowledge is through apprenticeship and experience. Thus, we have made more concrete and new definitions of tacit and explicit knowledge by using Polanyi's concept. To do so, we introduce the concept of knowledge representatives: the degree to which knowledge can be expressed in verbal, symbolic or written form. That is, we consider the representative ness of knowledge to be a continuum. [7]According to this rationale, tacit knowledge is defined as the knowledge which cannot be expressed in verbal, symbolic and written form while explicit knowledge is the knowledge which exists in symbolic or written form. Then implicit knowledge is the knowledge which can be expressed in verbal, symbolic or written form, but not yet completely expressed.

## 2.5. Organizational capability

In the traditional approach, the attractiveness of an organization and its ability to establish competitive advantage over rivals are major factors of organizational capability. However, with increasing uncertainty and the dynamics of business environments, the internal analysis of the firm rather than the external factors of the industry and its environment become a frequent question of strategic management. This interest reflects dissatisfaction with the static, equilibrium framework of traditional approaches and leads to the resource-based theory of the firm. This view of firm has led to the suggestion that organizational resources and capabilities are key success factors for competitive advantage and its sustainability. Accordingly the organizational capability depends on valuable resources that are inimitable, non substitutable, and durable; it depends on an organization's ability to acquire and use them for competitive advantage. Later, this allows development of a dynamic capability approach. [9], [11], [15]

## 3. Methodology and research process

In this article we want to examine local governmental organizations that outsource ICT functions, their success, and understand how some variables affect this success. The basic model studied the relationship between knowledge sharing and outsourcing success. The effects of organizational capability and partnership quality on this relationship were explored. The research model is drown from interviews in real workplace based on the logical model which is described by Konsynski and McFarlan [17], partnerships can create a competitive advantage through the strategic sharing of organizations' key information and knowledge. Closer relationships result from more frequent and more relevant information and knowledge exchanges among high performance partners [7]. By sharing knowledge between service receivers and providers, they are able to sustain a more effective outsourcing relationship over time. This successful relationship will create social capital advocacy.

| Item | Cronbach's alpha | Convergent validity | Discriminate validity |
|------|------------------|---------------------|------------------------|
| Knowledge sharing | | | |
| Explicit knowledge | 0.903 | | |
| business proposal and reports | | 0.752 | 0.861 |
| Business manuals and models | | 0.756 | 0.862 |
| Success and failure stories | | 0.776 | 0.873 |
| Newspaper, magazines and journals | | 0.833 | 0.916 |
| Implicit knowledge | 0.752 | | |
| Know how from work experience | | 0.595 | 0.744 |
| Know where and know whom | | 0.688 | 0.876 |
| Education and training | | 0.615 | 0.836 |
| Organizational capability | 0.894 | | |
| Scanning | | 0.896 | 0.944 |
| Acquisition | | 0.673 | 0.802 |
| Assimilation | | 0.658 | 0.797 |
| Exploitation | | 0.892 | 0.948 |
| Partnership quality | 0.816 | | |
| Trust | | 0.662 | 0.811 |
| Business understanding | | 0.671 | 0.808 |
| Benefit and risk sharing | | 0.602 | 0.763 |
| Compatible culture and policy | | 0.711 | 0.773 |
| Pre specified | | 0.741 | 0.835 |
| Outsourcing success | 0.902 | | |
| Focus on core business | | 0.583 | 0.672 |
| IT competence | | 0.683 | 0.744 |
| Skilled personnel | | 0.609 | 0.729 |
| Economies of scale in human resources | | 0.644 | 0.692 |
| Economies of scale in technical resources | | 0.725 | 0.783 |
| Control of IS expenses | | 0.759 | 0.785 |
| Avoidance of obsolescence risk | | 0.714 | 0.814 |
| Access to key IT | | 0.682 | 0.765 |
| Overall satisfaction | | 0.713 | 0.788 |

**Table1,Reliability and validity measuring**

Since tacit knowledge is hard to formalize and communicate, this study focuses on explicit and implicit knowledge shared between the service receivers and providers. The dependent variable, outsourcing success, can be viewed as the level of fitness between the customer's requirements and the outsourcing outcome. The first set of hypotheses explores the base relationship between the degree of knowledge sharing and outsourcing success. The degree of knowledge sharing will have a positive effect on outsourcing success, the degree of implicit knowledge sharing will have a positive effect on outsourcing success and the degree of explicit knowledge sharing will have a positive effect on outsourcing success. Knowledge sharing refers to the extent to which critical or proprietary information is communicated to one's partners. It is widely accepted that one of the key sources of successful knowledge sharing is an organizational capability to learn or acquire the needed knowledge from other organizations: the higher the degree of organizational capability, the greater the outsourcing outcome. However, organizational capability in knowledge sharing is dependent on the ability of an organization to acquire or create, integrate, and leverage knowledge. The service receiver's absorptive ability to recognize and assimilate the service provider's knowledge may lead to a successful outsourcing outcome, regardless of the degree of knowledge sharing between the service receiver and provider. Therefore, we expected organizational capability to influence the base relationship between the degree of knowledge sharing and outsourcing success. While the degree of implicit and explicit knowledge sharing may or may not have a significant relationship with outsourcing success, the relationship would be stronger under a higher level of organizational capability. This leads us to another Hypothesis. The association between the degree of knowledge sharing and outsourcing success is moderated by the level of organizational capability. The association between the degree of implicit knowledge sharing and outsourcing success is moderated by the level

of organizational capability. The association between the degree of explicit knowledge sharing and outsourcing success is moderated by the level of organizational capability. As the nature of the outsourcing relationship shifts from relatively independent to tightly coupled, organizations consider the outsourcing partnership as a strategic alternative, allowing them to obtain outsourcing benefits more effectively. Lee and Kim considered partnership quality to be a critical success factor of ICT outsourcing. Therefore, the base relationship between the degree of knowledge sharing and outsourcing success should be affected by the degree of partnership quality. However, since the quality of the partnership is a process-oriented variable and not an outcome-oriented variable, they consider it as a mediating one; in other words, the partnership quality is an intervening variable between the degree of implicit and explicit knowledge and outsourcing success. This leads to a 3rd Hypothesis: The association between the degree of knowledge sharing and outsourcing success is mediated by the quality of the partnership. The association between the degree of implicit knowledge sharing and outsourcing success is mediated by the quality of the partnership. The association between the degree of explicit knowledge sharing and outsourcing success is mediated by the quality of the partnership. [17], [22]

The unit of analysis for this study is the outsourcing relationship between a service receiver and one of its service providers. In this study, because of the importance of costumers on survival of incubator and SME,s we focus on the service receiver's perceptions of the outsourcing relationship. However, after developing the research framework, we conducted a series of personal interviews with ICT outsourcing professionals to assess the external validity of the model. Then we developed a questionnaire based on the previous literature and the comments gathered from the interviews. When developing the measurement, the multiple-item method was used and each item was measured on a five-point Likert scale from `strongly disagree' to `strongly agree'. Knowledge sharing, the independent variable in the research model, refers to the activities of transferring or disseminating knowledge between the service receiver and provider. As we intended to examine the effect of implicit and explicit knowledge sharing on the success of outsourcing, I introduced the concept of knowledge representative ness to classify knowledge into either implicit or explicit. By reviewing the previous literature on knowledge sharing, we decided that the knowledge that exists in symbolic or written form as explicit knowledge (business proposals, reports, manuals, and models). Implicit knowledge, on the other hand, was defined as the material expressed verbally, symbolically, or in written form but not yet expressed as know-how, know-where, and know-whom from work experience. Outsourcing success, the dependent measure of this research, refers to the overall organizational advantage obtained from ICT outsourcing. Outsourcing is motivated by the strategic, economic, and technological benefits. Thus, the success of outsourcing can be assessed in terms of attainment of these benefits. To capture these advantages of outsourcing, we adopted Grover instrument to assess the degree of achieving the strategic, economic, and technological benefits of outsourcing. [18] This instrument has been used to measure outsourcing business performance and has been validated by other researchers. Refer to an organization's ability to scan for valuable knowledge, acquire the needed knowledge, assimilate the found knowledge, and exploit the gathered knowledge for the organizational objectives, these four dimensions were adopted as our measure of organizational capability. For the quality of partnership, we adopted the measure developed by Lee and Kim.[15] They considered five factors from the literature on inter-organizational relationship and partnership that make up partnership quality: trust, business understanding, benefit and risk sharing, conflict, and commitment.

The sampling frame of this study was all of the 120 ICT managers of Zanjan province's local government. The survey questionnaire was sent to all of the 120 ICT managers of these organizations. Finally, 107 responses were received, representing a response rate of about 90%. Among them, 9 responses did not have an ICT outsourcing or insufficient data .Thus 98 responses were used in the final analysis. Validity of the survey instrument was established through the adoption of validated instruments by other researchers in the literature and the pretest using outsourcing professionals

| | Coefficient interaction | Significanceinteraction | $R^2$ model | $R^2$ difference |
|---|---|---|---|---|
| Implicit knowledge sharing | - | - | 0.193 | |
| Implicit knowledge sharing + organizational capability + interaction | 3.610 | 0.014 | 0.256 | 0.063 |
| Explicit knowledge sharing | - | - | 0.215 | |
| Explicit knowledge sharing + organizational capability + interaction | 7.100 | 0.000 | 0.343 | 0.128 |
| Overall knowledge sharing | - | - | 0.244 | |
| Overall knowledge sharing + organizational capability + interaction | 5.290 | 0.000 | 0.338 | 0.094 |

**Table 2,Testing the moderating effects of organizational capability**

Since each factor was measured by the multi- item constructs, item analysis and factor analysis were performed to validate the scales. Internal consistency (Cronbach's alpha) was calculated in order to assess the reliability of all constructs. The Cronbach's alpha values ranged from 0.764 (for implicit knowledge) to 0.911 (for outsourcing success). Convergent validity, the degree to which multiple attempts to measure the same concepts are in agreement, was evaluated by item-to-total correlation (the correlation of each item to the sum of the remaining items). All of the correlations are positive and significant at the 0.001 level. Discriminate validity is the degree to which measures of different concepts are distinct. To test this, a principal component factor analysis with varimax rotation was performed for each domain of the proposed model. [8], [15], [18], [22]

| | Without partnership quality | With partnership quality | R2 difference | Beta difference |
|---|---|---|---|---|
| Implicit knowledge sharing R2 | 0.167 | 0.340 | 0.173 | |
| Beta for implicit knowledge ( p value ) | 0.108 (0.000) | 0.117(0.005) | | -0.291 |
| Beta for partnership quality ( p value ) | - | 0.532(0.000) | | |
| Explicit knowledge sharing R2 | 0.197 | 0.368 | 0.171 | |
| Beta for explicit knowledge ( p value ) | 0.444 ( 0.000 ) | 0.184(0.000) | | -0.260 |
| Beta for partnership quality ( p value ) | - | 0.610(0.000) | | |
| Overall knowledge sharing R2 | 0.230 | 0.374 | 0.144 | |
| Beta for overall knowledge ( p value ) | 0.479 (0.000 ) | 0.220(0.001) | | -0.259 |
| Beta for partnership quality ( p value ) | - | 0.364(0.000) | | |

**Table 3 ,Testing the mediating effects of partnership quality**

## 4. Research's results

Testing the base model shows the correlation matrix for all the research variables.  As proposed in hypotheses, the implicit and explicit knowledge sharing between the service receivers and providers was significantly related to outsourcing success. In addition, overall knowledge sharing shows a significant positive relationship with outsourcing success, which supports Hypothesis 1. This means that the higher the degree of knowledge sharing, the greater the accomplishment of the strategic, economic, and technological benefits of ICT outsourcing. By sharing knowledge about each other's organization, the service receivers and providers are expected to reap the greatest benefit of outsourcing. Testing the moderating effects of organizational capability indicated that organizational capability has no significant relationship with the degree of implicit and explicit knowledge sharing as well as the degree of overall knowledge sharing. Accordingly, the condition that organizational capability should not vary systematically with the degree of knowledge sharing is supported. When the interaction between the independent variable (degree of knowledge sharing) and the moderating variable (degree of organizational capability) is significant in the relationship of the independent variables on the dependent variable (outsourcing success), a moderating effect exists. This effect of organizational capability on the base relationship was assessed using the degree of the difference in R squared between the restricted model and full model. The results show that, organizational capability plays a significant role in increasing the amount of variance explained in the relationship between explicit knowledge sharing, implicit knowledge sharing, overall knowledge sharing and outsourcing success.
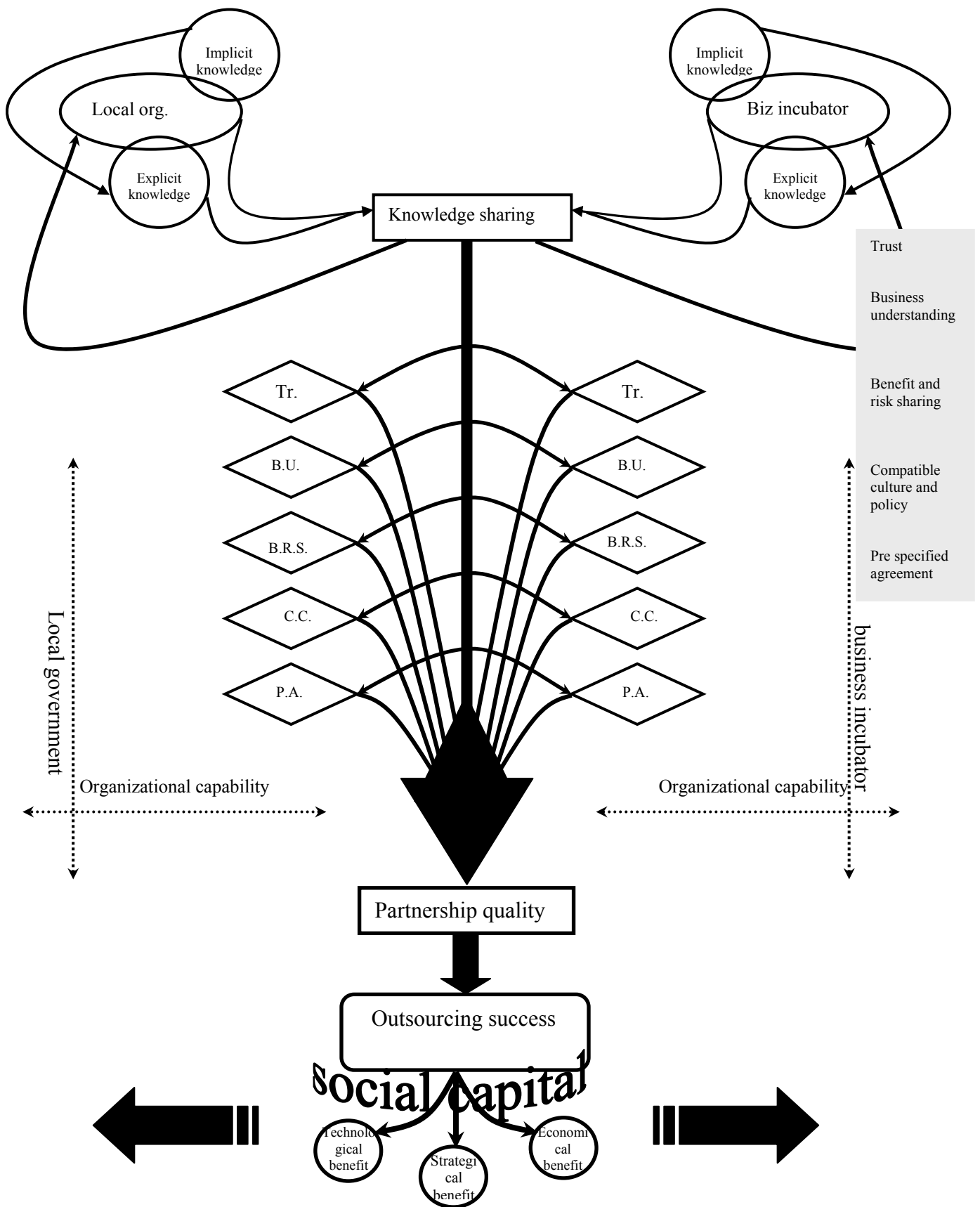
**Fig.1. Modeling transformational relationship between incubator and local government based on knowledge sharing for social capital advocacy**

Testing the mediating effects of partnership quality must indicate that there are four criteria to assess if a mediational model is or is not valid : the independent variable should be significantly correlated to the intervening variable; the independent variable should influence the dependent variables in a regression of the independent variables on the dependent variable; the intervening variable should affect the dependent variable in a regression of both the independent variable and the intervening variable on the dependent variable; and the effect of the intervening variable on the dependent variable in a regression of both the independent variable and the intervening variable on the dependent variable should be higher than the effect of the independent variable. The first condition to be a mediational model is upheld; i.e. all correlations between implicit knowledge sharing, explicit knowledge sharing and overall knowledge sharing and partnership quality are significant. The rest of the conditions are tested and the results show that all three conditions are satisfied and all models have strong mediating effects of partnership quality. In details, all models provide the strong evidence of the mediating effect of partnership quality as it significantly reduces the degree of relationship strength between knowledge sharing and outsourcing success. The noticeable thing in the results is the fact that the correlation between partnership quality and outsourcing success is high, in the other words; we can consider partnership quality as a critical factor to directly influence the success of outsourcing. Based on these results of the research we can offer a model for transformational relationship between incubators and local governmental organizations for social capital advocacy.

## 5. Conclusion

The objective of this study was to assess the impact of knowledge sharing, organizational capability, and partnership quality on ICT outsourcing success. This study confirms the widely held belief that knowledge sharing is one of the major predictors for outsourcing success, organizational capability to learn or acquire the needed knowledge from other organizations is a key source of successful knowledge sharing, and partnership quality is a significant intervening factor between knowledge sharing and outsourcing success. Although the research findings provide meaningful implications, this study has some limitations. First, the results are only one side of the story, from the service receiver's perspective. The success of outsourcing through knowledge sharing is also enjoyed to a significant extent by the service provider. Second, we surveyed one individual in each organization who was the ICT manager in charge of the firm's operations. While effort was made to minimize it, selection bias could still exist. Finally, the results may include some bias since the sample was selected only in local governmental organizations of Zanjan province. Therefore, the results of our study may have to be carefully interpreted.

## Acknowledgements

## Appendix

Questionnaire items' arrangement

Items measuring knowledge sharing
Explicit knowledge sharing

1. Our service provider and we share business proposals and reports with each other.
2. Our service provider and we share business manuals, models, and methodologies with each other.
3. Our service provider and we share each other's success and failure stories.

4. Our service provider and we share business knowledge obtained from newspapers, magazines, journals, and television.

Implicit knowledge sharing

1. Our service provider and we share know-how from work experience with each other.
2. Our service provider and we share each other's know-where and know-whom.
3. Our service provider and we share expertise obtained from education and training.

Items measuring organizational capability

1. We have the ability to scan for the valuable knowledge in external organizations.
2. We have the ability to acquire the needed knowledge from other organizations.
3. We have the ability to assimilate the found knowledge in our organization.
4. We have the ability to exploit the gathered knowledge for our organization.

Items measuring partnership quality

1. Our service provider and we make beneficial decisions under any circumstances.
2. Our service provider and we understand each other's business objective and process each other.
3. Our service provider and we share the benefits and risks that can be occurred in the process of business.
4. Our service provider and we have compatible culture and policies in the process of business.
5. Our service provider and we perform pre-specified agreements and promises very well.

Items measuring success of outsourcing

1. We have been able to refocus on core business.
2. We have enhanced our IT competency.
3. We have increased access to skilled personnel.
4. We have enhanced economies of scale in human resources.
5. We have enhanced economies of scale in technological resources.
6. We have increased control of IS expenses.
7. We have reduced the risk of technological obsolescence.
8. We have increased access to key information technologies.
9. We are satisfied with our overall benefits from outsourcing.

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