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MAKING KNOWLEDGE STRATEGIES BASED ON ORGANIZATIONAL LIFE CYCLE (A CASE STUDY IN AUTOMOBILE INDUSTRY)

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Abstract:
Today knowledge is considered the most strategically important resource for business organizations. a clear link between business strategy and KM strategies is critical (Storey & Barnet, 2000; Zack, 1999, 2002), but researches show this link is often weak (Leinder, 1998; Ruggles, 1998; Storey & Barnet, 2000; Zack, 1999). Also KM strategies are made based on different approaches such as the type of knowledge (explicit and implicit), type of business strategy, organization process, or a combination of these. But no one considered organization life cycle (OLC) for choosing KM strategies. In this paper I provide a framework for setting up KM strategies regarding to knowledge type (*Nonaka* and *Takeuchi*'s model), life-cycle (Adizes model) and business strategy. This survey has done in Pooya Khodro Shargh (PKS) which produce types of wiring harness and electrical parts for automotive industry in Iran. First I made a gap analysis from 2 sides: SECI and OLC models. PKS is in Go-Go stage and they focus on sales products. Next I presented survey results for KM executive team. We defined KM vision. Then for linking to business strategy we used a knowledge–based SWOT. KM strategies were made in consideration to above steps. 8 main strategies were chose. Finally KM strategies were ranked by AHP approach. Developing R&D centre is the most important KM strategy for PKS.

Keywords: knowledge management, knowledge strategies, organization lifecycle.

1. INTRODUCTION

Knowledge Management (KM) has been the subject of much discussion over the past decade. Organisations are told that they will not survive in the modern Knowledge Era unless they have a strategy for managing and leveraging value from their intellectual assets, and many KM lifecycles and strategies have been proposed. However, it has become clear that the term "Knowledge Management" has been applied to a very broad spectrum of activities designed to manage, exchange and create or enhance intellectual assets within an organisation.while many managers intuitively believe that strategic advantage can come from knowing more than competitors, they are unable to explicitly articulate the link between knowledge and strategy (Zack, 1999). One fact that does seem to be agreed on is that different situations require different knowledge management strategies (Haggie & Kingston, 2001).

In this paper we defined some steps for making KM strategies in regards to organization's situation, business and knowledge.

First, we defined KM in this paper as: Knowledge Management can be thought of as the deliberate design of processes, tools, structures, etc. with the intent to increase, renew, share, or improve the use of knowledge represented in any of the three elements (Structural, Human and Social) of intellectual capital.(Seemann et al.,1999).

2. LITERATURE

In this part, we survey various KM strategies that have been proposed. The differentiation between these approaches is that they consider different aspects of knowledge management. Some strategies focus on the knowledge, others on the business .although there is some combination between these methods.

2.1. KM strategies by knowledge: Nonaka & Takeuchi's model

Various knowledge taxonomies exist. Alavi and Leidner (2001) and Jennex and Croasdell (2005) found that the most commonly used taxonomy is Polyani's (1964, 1967) and Nonaka's (1994) dimensions of tacit and explicit knowledge. Tacit knowledge is that which is understood within a knower's mind. It consists of cognitive and technical components. Explicit knowledge also consists of these technical components that can be expressed directly by knowledge representations. Knowledge transfer in an organization occurs when members of an organization pass tacit and explicit knowledge to each other. Nonaka and Takeuchi (1995) propose four modes of knowledge transfer and creation (known as the SECI model).

Socialization

This process focuses on tacit to tacit knowledge linking. Tacit knowledge goes beyond the boundary and new knowledge is created by using the process of interactions, observing, discussing, analyzing, spending time together or living in same environment. The socialization is also known as converting new knowledge through shared experiences.

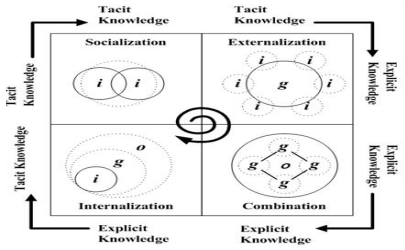
Externalization

This process focuses on tacit to explicit knowledge linking. It helps in creating new knowledge as tacit knowledge comes out of its boundary and became collective group knowledge. This process we can say that knowledge is crystallized. The process of externalization is often driven by metaphor analogy and models.

Combination
Combination is a process where knowledge transforms from explicit knowledge to explicit knowledge. The finance department collects all financial reports from each departments and publics a consolidated annual financial performance report.

Internalization
By internalization explicit knowledge is created using tacit knowledge and is shared across the organization. When this tacit knowledge is read or practiced by individuals then it broadens the learning spiral of knowledge creation.

Picture 1: SECI Model



2.2. KM strategies by knowledge: Boisot's I-Space Model

Boisot (Boisot, 1998) proposes a model of knowledge asset development along similar lines to that of Nonaka and Takeuchi. However, Boisot's model introduces an extra dimension (abstraction, in the sense that knowledge can become generalised to different situations) In Boisot's scheme, knowledge assets can be located within a three dimensional space defined by axes from "uncodified" to "codified", from "concrete" to "abstract" and from "undiffused" to "diffused" He then proposes a "Social Learning Cycle" (SLC) which uses the I-Space to model the dynamic flow of knowledge through a series of six phases: Scanning, Problem-Solving, Abstraction, Diffusion, Absorption, Impacting.

2.3. KM strategies by Business strategy

Two rather distinct streams could be identified in the literature debating the role of business strategy in the processes of setting up KM strategy (Imani,2009). first stream, which regard knowledge as a strategic resource and critical to competitive advantage (e.g., Clarke, 2001; Drew,1999; Whitehill, 1997, tend to adopt a 'tool-based approach. they offer managers and practitioners simplistic and generic insights on »how« to set up KM strategies. This »designable« aspect, as Spender (2002) puts it, tends to ignore the influence of contextual factors and as a result oversimplifies the complexity of KM strategizing.

The second stream, contains more sophisticated studies, mainly single or comparative case studies, offering an array of „knowledge strategy models' (see, Hansen et al., 1999; Von Krogh et al., 2001; Zack, 1999, 2002). These debates regard knowledge as contextual and culturally-embedded, hence they offer contextspecificand more complex insights (local and muddled) (e. g., Chakravarthy et al., 2005; Clarke, 2001; Hansen et al., 1999; Lang, 2001; March, 1991; Von Krogh et al., 2001; Zack, 1999, 2002).

2.4. KM strategies by Business Process

Karl Wiig and the APQC (American Productivity and Quality Center), identified six emerging KM strategies The strategies reflect the different natures and strengths of the organisations involved (Wiig, 1997; Manasco, 1996):

1. Knowledge Strategy as Business Strategy;
2. Intellectual Asset Management Strategy;
3. Personal Knowledge Asset Responsibility Strategy;
4. Knowledge Creation Strategy;
5. Knowledge Transfer Strategy;
6. Customer-Focused Knowledge Strategy.

Day and Wendler of McKinsey & Company, identified five knowledge strategies employed by large corporations (Day & Wendler, 1998):

1. Developing and Transferring Best Practices;
2. Creating a new industry from embedded knowledge;
3. Shaping Corporate Strategy around knowledge;
4. Fostering and Commercialising Innovation;
5. Creating a standard by releasing proprietary knowledge.

3. ORGANIZATION LIFE CYCLE (OLC)

Adapting the concept from the biological sciences, a number of researchers has proposed life cycles of organizational development from birth to death (i.e. Chandler, 1962; Greiner, 1972; Galbraith, 1982; Churchill, 1983; Quinn & Cameron, 1983; Miller & Friesen, 1980, 1984; Smith, Mitchell & Summer, 1985; Dodge & Robbins, 1992; Hanks, Watson, Jensen & Chandler, 1993; Kazanjian, 1988; Beverland & Lockshin, 2001; Lester, Parnell & Carraher, 2003) As one of the contributors The Adizes Methodology is reference model for all of the concern structure models gathered for this study, like other lifecycle models, the Adizes organizational lifecycle describes several phases in the life of any organization, from inception and growth through to maturation and decline.

1. *Courtship:* This phase involves the potential founder of a new project or organization talking to others about the opportunity, building enthusiasm and support for the new idea.

2. *Infancy:* Most new ventures die in Courtship. However, if the results of reality-testing are positive, and if the founders and their supporters make commitments of time, energy and resources to the project, it moves into the extraordinarily busy Infancy stage.

3. *Go-Go:* Following some hard effort, the organization will gain scope and some security of income. The organization will be paying for itself, no longer requiring protection or support from the outside. The founders will be able to lean back and see the organization moving on its own steam, while at the same time opportunities for more work appear everywhere.

4. *Adolescence:* Adolescence is a rebirth and emergence into the phase of maturity. It requires the organization to take an inward turn, to analyze, organize and rationalize their own organizational structure. The previously sales-driven Infant-Go-Go culture must now focus on streamlining procedures, trimming waste and boosting profits even if that means that sales numbers go down.

5. *Prime:* Prime is the target state for any organization. Prime organizations have the flexibility to adapt to change and the control to produce predictable results

6. *Stable:* A stable organization is an organization in trouble. By all metrics the organization is still doing well, and there is a solid history of success behind it. The mood within the organization is self-congratulatory.

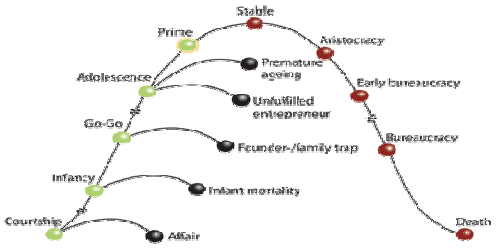
7. *Aristocracy:* If Stable organizations persist in their withdrawal from contact with the outside world, they degenerate further into Aristocracies. Cash piles up in Aristocratic organizations, which unlike Prime organizations have no new ventures lined up and waiting for investment.

8. *Early Bureaucracy:* when the loss of effectiveness in the organization can no longer be hidden, and the momentum of past successes runs out, the united front of Aristocratic denial ruptures, and the hunt for scapegoats begins.

9. *Late Bureaucracy:* If a functioning organization based on client needs was not re-established in the reorganization of the early bureaucracy, all that gets left behind is a network of rules, regulations and practices masquerading as an organization.

10. *Death:* Organizational Death is rarely an event. It is usually a drawn-out process of the slow withdrawal of subsidies, reductions in size of the organization and final client abandonment of the system.

Picture 2: The Adizes organizational lifecycle



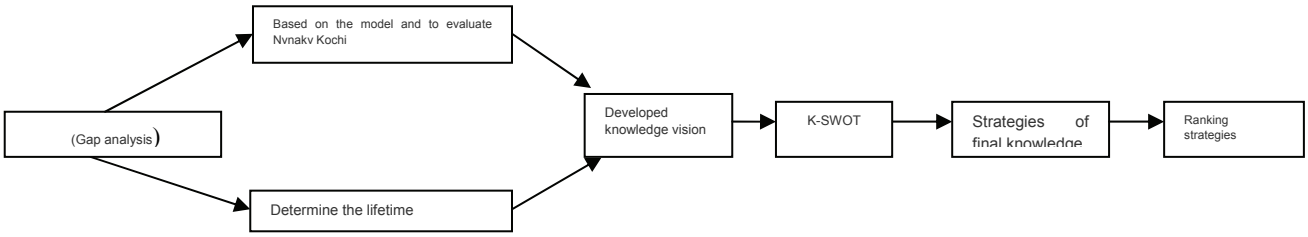
4. RESEARCH METHODOLOGY

This study is based on applied research because of its objectives, using of principals and techniques formulated for basic research to solve operational and real issues in PKS which is a company in automobile industry in Iran. In this survey we tried to answer this question, how we can make KM strategies in an organization which has a clear link with business strategy and situation with regard to organization life cycle. PKS company has 1100 staff, I chose 27 of top managers for this survey. I used 2 questionnaires. First, based on SECI model for identifying the KM situation in PKS. This questionnaire includes 68 questions in 8 division (4 strategies and 4 situations) which is analyzed by SPSS. The validity defined as 89 % at the end of research.

Second, I defined PKS organization life cycle based on a questionnaire with 27 questions with 90 % validation. These findings helped for making KM strategies in PKS company. This research does not contain the relation between each step of SECI model in PKS company. It

maybe will survey for next researches. Also we did not make any hypothesises for this research we just used statistical information for identifying PKS situation.

Picture 3: Steps in order to develop a knowledge strategy



4. RESULT AND DISCUSSION

4.1. Pooya Khodro Shargh (PKS)

Pooya Khodro Shargh company manufacturer automotive electrical parts. This company was established by EZAM holding. PKS has 1100 staff and 50MD turnover yearly.

4.2. Company vision

PKS company intends to 3 years by attracting and developing human resources and the efficient participation of the companies, while increasing the quality and quantity and variety of its products, be among the best in wire harness industry and export market share provide for themselves. The key business strategies: Product and Market Development, Export Product, Policies to reduce the outsourcing of some activities.

4.3. Knowledge situation in the PKS

For making KM strategies the first step is finding the present KM situation. I made a questionnaire based on SECI model includes 8 stages (4 types and 4 transition between them). 27 top managers answered this. After analysing, socialization (individual tacit knowledge to individual explicit knowledge) got the minimum value.

Table 2: SECI Model Analysis

markers transformation individual tacit knowledge to individual explicit knowledge	markers transformation individual explicit knowledge to organizational explicit knowledge	organizational Explicit knowledge	organizational Explicit knowledge into organizational tacit knowledge	Individual tacit knowledge	markers transformation organizational tacit knowledge into individual tacit knowledge	individual Explicit knowledge	organizational tacit knowledge
2.146	2.255	2.313	2.493	2.896	2.919	2.955	3.169

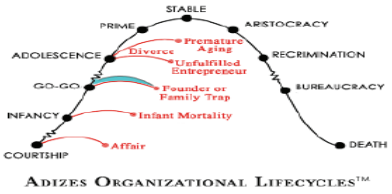
4.4. PKS knowledge vision

Becoming a knowledge-based organization that produces up to 2014, sharing knowledge is part of the culture of the organization's business knowledge workers.

4.5. Determine the location of the curve of its life

For finding PKS stage on OLC we used Adizes questionnaire. PKS is in go-go stage.

Picture 4: PKS Organization lifecycle



4.6. SWOT matrix

We used SWOT matrix for making a clear link between KM strategies and business strategy. it also helps us for comparing PKS knowledge with other competitors.

Table 3: PKS SWOT

	Strength 1- Good interaction with customers 2- Organization of interaction with identified competitors and their knowledge is appropriate. 3- The staff of the organization have a good education. 4- readiness and willingness to accept knowledge management issues among staff 5- Knowledge of the system manifested in the form of individual and organizational procedures and guidelines have been prepared in line with quality management system. 6- Familiarity with software experts in their field of work 7- in the IT department's ability to implement knowledge management software 8- Senior management supports the organization of project management 9- Development of training per	**weakness** 1- individual tacit knowledge doesnot transform to individual explicit knowledge 2- The perfect solution for converting tacit knowledge into explicit knowledge in organizations is not organized. 3- a culture of knowledge transfer between organizations is weak. 4- The employe of the organization are not aware of knowledge and experience gained in the organization. 5- There is no organizational knowledge management process. 6- Lack of knowledge of optimal mining 7- manuals, maps, brochures and articles on a regular basis does not exist in the organization. 8- The experiences of successful and unsuccessful projects in the organization is not registered..
Opportunity: 1- the parent company (as announced) of the project 2- to-date and applicability of knowledge management issues 3- making culture in the society of knowledge management	SO1: Use of IT infrastructure in order to maintain and publish organizational knowledge SO2: Cultural knowledge	WO1: Strategy to detect and convert WO2:The use of capacity in order to optimize the mining group WO3: Documentation of process knowledge and its affiliated organizations WO4 :Strengthen IT infrastructure
threat 1- Providing false information to the organization's customers 2- Lack of customer cooperation with units of	ST1 :Documentation of methods and processes of knowledge transfer	WT1: Recorded using organizational knowledge to evaluate the customer's knowledge WT2 :R & D department and join with the holder of a student (the student leader)

4.7. Strategy knowledge

We defined KM strategies that resulted from SWOT. It helps us to make a clear link between KM and business strategy.

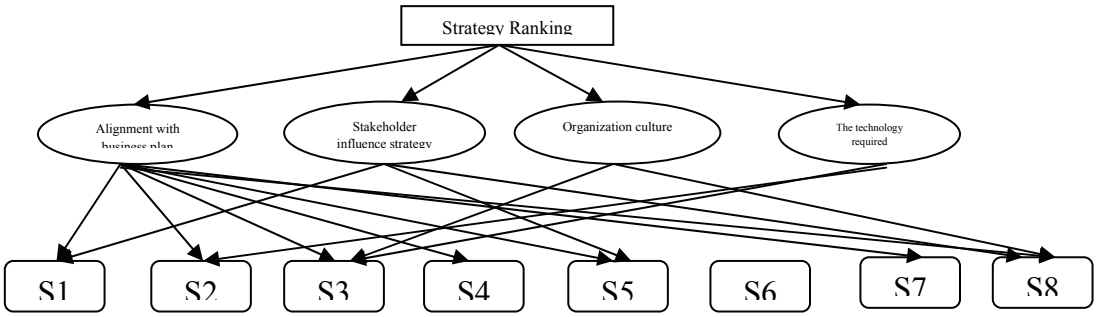
Table 4: PKS Knowledge Strategies

		KM strategies
S1	So1	Use of IT infrastructure in order to maintain and publish organizational knowledge
S2	Wo4	Strengthen IT infrastructure
S3	Wo1	Strategy to detect and convert
S4	So2	Cultural knowledge
S5	Wo2	The use of capacity in order to optimize the mining group
S6	ST1	Documentation of methods and processes of knowledge transfer
S7	Wt1	Recorded using organizational knowledge to evaluate the customer's knowledge
S8	Wt2	R & D department and join with the holder of a student (the student leader)

4.8. Rating knowledge strategies

AHP is a reliable tool to facilitate systematic and logical decision making process and determine the significance of a set of criteria and sub-criteria.i made 4 criteria for ranking 8 strategies.

Picture 5: AHP Chart



Picture 6: AHP Results

5. CONCLUSION

Today knowledge is considered the most strategically important resource and learning the most strategically important capability for business organization. However many initiatives being undertaken to develop organizational knowledge are not explicitly linked to organization's business strategy or organization life cycle. In this paper we have presented a framework for making knowledge strategies in PKS company. We first made gap analysis based on SECI and adizes models. The first evidence shows markers transformation individual tacit knowledge to individual explicit knowledge is the most knowledge weakens for this company. Since automobile industry has been traditionally focused on documentation. Also we have determined OLC place. PKS company is located in go-go stage. In this stage company focused on sales and they do not think for innovation. It might causes some crises in next stage. On the other hand this company competitors have designing knowledge and they can change and develop products so designing is so critical. In the second step the knowledge team established knowledge vision which is linked with PKS mission and vision. After that we have used SWOT approach for linking business strategies with knowledge strategies. After determining weaknesses, strengths, opportunities and threats (we used Adizes model as one of the inputs for SWOT. We have made 8 strategies such as using IT facilities for maintain and sharing knowledge.

Finally, we ranked these strategies with AHP approach. First we made 4 indicators we considered industry situation, such as technology required or stakeholder satisfaction. Based on this ranking developing R&D department and knowledge got the first priority.

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