

**CHANGING MENTALITY TOWARDS COMMON INTELLECTUAL CAPITAL,
CHANGING THE NATIONAL RAILWAY INFRASTRUCTURE**

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ABSTRACT

These days, the utilization of non-tangible resources because they can be a game changer has huge effect on the achievement and survival of organization such as our own, subsequently the distinguishing proof, estimation, and administration of intellectual capital is of specific significance and makes a real asset for gaining competitive advantages in the national railway environment. The effect of intellectual capital provides us with valuable data to help actual and potential financial specialists and investors in settling on sane choices for the future. Thinking strategically in the new context starts by seeing your organization as nothing but knowledge and knowledge flows. The financial flows result from the knowledge flows, the knowledge flows precede the profits. There hasn't been any significant advancement in organizations activity in increasing their structure around this important asset, past simply talk, and endeavoring to evaluate their intellectual capital. This paper will basically assess the difficulties confronted by organizations in the public railway sector unveiling the most important components and estimation of their intellectual capital value to the business sector.

KEYWORDS: *benchmarking, capability, common intellectual capital, optimization.*

JEL CLASSIFICATION: *O18, O34, R49.*

1. WHAT IS INTELLECTUAL CAPITAL

The Organisation for Economic Co-operation and Development (OECD) described the *intellectual capital* as the economic value of intangible assets from a company: structural capital and human capital. This definition, however, differentiate the two of them by locating intellectual capital as a subset of the overall intangible asset base of a firm. (Richard M. Petty, 2009).

In the years that followed it has been developed a consensus that the intellectual capital can be portrait in terms of a three way model consisting of human capital, external capital and internal capital components, where (Edvinsson & Malone, 1997):

- Human capital: regards the skills, training, education, experience and value characteristics of an organization's workforce;
- External capital: comprises relationships with customers and suppliers, brand names, trademarks and reputation;
- Internal capital: is composed from all the knowledge embedded in organizational structures and processes, including patents, research and development, technology and systems.

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While there is a legal requirement for organizations to disclose in their annually financial statements certain types of acquired intangible assets, companies are not currently obliged by accounting international standards or by national laws to report on their intellectual capital. (Richard M. Petty, 2009)

2. THE CREATION OF COMMON INTELLECTUAL CAPITAL

In order to create new knowledge, all new resources entering an organization must pass through two important processes: combination and exchange.

Combination and the creation of common intellectual capital. Combination is the process viewed as the foundation for economic enrichment. New knowledge can be created via incremental change and development from existing knowledge. Both types of knowledge creation involves making new combinations, either by combining elements previously unconnected or by developing novel way to combine element previously associated (Nahapiet & Ghoshal, 1998).

Exchange and the creation of common intellectual capital. When resources are divided between stakeholders, exchange is a must in order to combine those resources for the organization to create knowledge. Since intellectual capital is created through a process of combining knowledge and experience of different interested parties, that means that in order to develop the needed intellectual capital we must be dependent on those exchanges between those experienced parties. The exchange presumes the transfer of explicit knowledge, individually or collectively detained, or nowadays through social media interaction and coactivity more and more due to interdisciplinary activities of the organizations. (Nahapiet & Ghoshal, 1998)

In order to create new common intellectual capital organizations must meet a number of conditions, such as (Nahapiet & Ghoshal, 1998):

- One of these conditions is that the opportunity exists in order to develop these combinations and exchanges to create common intellectual capital. A fundamental requisite is that for the development of new and common intellectual capital is that there exist interested experienced parties, communities of expertise and that can be engaged freely by whomever is interested.
- Another condition is that the stakeholders involved in these combinations and exchanges in order to create common intellectual capital, must anticipate that from these interactions the results must be worthwhile, even if they don't really know how or what will be exactly produced.
- The third condition required in order to create common intellectual capital is to be able to highlight the importance of motivation. Even if the opportunity reveals for the processes of exchange and combination in order to obtain common intellectual capital and the parties involved anticipate that the value that may be created is remarkably useful in the organization, stakeholders must feel that their engagement in these operations of exchange and combinations of knowledge will be worth their while individually.
- The fourth and most important condition in my opinion is that is absolutely necessary the existence of combination capabilities in order to create new common intellectual capital. Even where opportunities exists, are perceived as worthy and the parties involved are truly

motivated to participate in these interactions, the capability to combine knowledge and expertise must be present among all the interested parties.

3. WHY IT IS ADVISED TO MEASURE COMMON INTELLECTUAL CAPITAL IN THE PUBLIC SECTOR

In nowadays business world where for most of the organizations in the public sector the most important values are the ones deriving from the intangible assets, and therefore the ability to acknowledge and quantify the sources of that value became more vital for organizations. In order to become able to manage intellectual assets, organizations must identify the sources from which they protrude and how they can be created further more (Sitar & Vasic, 2004).

Measuring intellectual capital helps to recognize organizational knowledge flows and critical knowledge issues, to accelerate the learning patterns, identify best practices, diffuse them across the firm, and increase innovation and collaborative activities (Kannan & Aulbur, 2004).

When the management from an organization in the public sector decides that it's adequate to measure its common intellectual capital they must keep in mind the primary purpose of the measurement – the internal use oriented towards a greater management of their intangible assets. The external use of the public organizations should come second, in the way that it should be envied by all of the stakeholders and even competitors for the organizations common intellectual capital. When the top management of a public organization decides which methods of measuring should be used to identify the common intellectual capital, they must keep in mind their strengths, weaknesses and usability regarding both external and internal purposes (Sitar & Vasic, 2004).

Measuring common intellectual capital for a public organization provides a comprehensive strategy that can be easily be transmitted to lower levels of the company, pointing out non-financial indicators, obtaining a culture shift and focusing management's attention on topics of strategic importance, and it's imperative that top and middle managers from public organizations pay very much attention to this subject (Sitar & Vasic, 2004).

No matter what methods of measuring are being used, there is the very present problem of reporting common intellectual capital in the traditional accounting systems. A partial solution is to create a special appendix in the annual public companies reports, but furthermore there still is a problem quite big risen from the fact that managers don't know which data to include in this supplements, and how detailed should they be, considering the fact that it's internal common intellectual capital information, that can develop into competitive durable advantage in time, even though that could be critical information for future investments in railway infrastructure.

Quantitative vs. qualitative measures of value

Qualitative measures are typically judgment-based and are used when the item to be measured can't be precisely quantifiable. One of the best example of this kind of measurement can be exemplified using a non-business intangible: love, which can be accurate quantifiable measured because first it must be completed before it can be counted. Companies from the public sector of railway transportation manage their common intellectual capital by defining some grey areas instead of the typical black and white, they can also use vectors because they can provide a vast amount of information regarding the direction and the amount (Harrison & Sullivan, 2000).

Quantitative measures allow the management of a public organization from the railway industry to determine where they have been, where they are going – in terms of distance and time, and where they are situated in a physical sense. Qualitative measures provide a precise image of the firms’ activities and indicate the exact time when measurement should be taken. While quantitative measurement provides information for the management of public organizations from the railway industry of what has happened, the qualitative ones will tell them of what is happening.

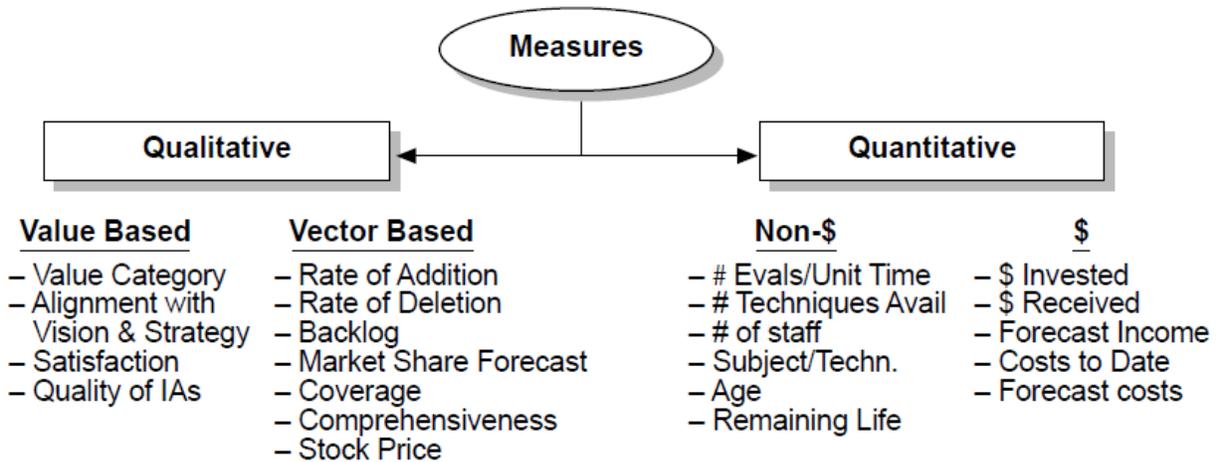


Figure 1. Example measures for common intellectual capital

Source: Harrison & Sullivan (2000)

4. COMMON INTELLECTUAL CAPITAL = COMPETENCE + COMMITMENT

Common intellectual capital – the commitment and competence of workers – is embodied in how all employees from a public organization think and work together and it should reveal more eloquently how the organization creates its systems and policies to get work done. It is critical for the following reasons (Ulrich, 1998):

- Common intellectual capital it’s one of the most important assets that a public organization can have, because the physical assets tend to depreciate from the date they are bought. The managers’ objectives must be towards making knowledge productive and in turning common intellectual capital into customer value.
- Knowledge work is increasing, not decreasing. As the service economy is constantly growing, the importance of common intellectual capital must also rise. Service in the public sector of railway transportation comes from relationships based on the competence and commitment of individuals.
- Employees with the most intellectual capital have essentially become volunteers, because the best employees from a public organization are likely to find work opportunities easily in any private company. Basically they have the choice of where to work, but they commit to one place due to an emotional bond to that organization.
- Many managers ignore ore depreciate common intellectual capital. Due to the dynamic of the business environment employees’ work life hasn’t been so good always. Due to these changes in

worlds economies employees' don't even think of staying with a company long enough to retire, not because of lack of opportunity but because of the enormous stress and higher demands that grow each and every day.

- e) Employees whom detain the most of the common intellectual capital are often the least appreciated. At the time when public organizations invest vast amounts of money to train executives to think strategically and act globally, the impression from the general public come from the employees that serve them, who may not be so committed or competent enough to answer public questions or to meet their newest needs. As a result, the overall image of the entire organization tends to fall.
- f) Current investment in common intellectual capital are misfocused. People should be the defining assets of a public organization, for that we must create a learning culture throughout the entire company in order to grow and to gain competitive advantages in nowadays dynamic markets.

5. OPTIMIZING COMMON INTELLECTUAL CAPITAL

Common intellectual capital became one of the most important asset especially for organization from the public sector of railway transportation, but can be easily devalue if the human and cultural elements of its components are not handled carefully.

One of the difficulties is that emotional consideration of the stakeholders, rather than economic factors, can determine the success of failure or a partnership in creating common intellectual capital. The approach is to be more involved, meaning that individuals from each interested party should start communicating among their peers, and by this way they will recognize that they have many interests in common than they originally thought. There are some practices and common mistakes that should be taken into consideration, such as (Sherman, 2011):

- *Think long term in strategy and approach.* When there was the global economic crisis the world's largest companies changed its leadership every 18 month, and so making it difficult to fix an innovation agenda or to set a clear strategic direction. Innovation is a marathon, not a sprint, and top management must be patient and persistent in adopting a long term view. Fewer thing of value can be built overnight.
- *Invest in gathering, documenting and coding your common intellectual assets.* Many companies fail to retain their best know how, show how and processes that drive their success. Internal best practices are often shared over a water cooler and not captured and codified to be used later on. Don't let knowledge leave the premises of your organization when employees exit the building, because some of it never returns.
- *Don't select project to be implemented on a personal agenda.* Pet projects are resource-draining cats with nine lives, impossible to shut down and always keep reappearing at the doorstep. Project must always be objective and aligned to the public organizations business strategy. Put screens and filters in order to make an objective decision of which project to go further and which should be discarded.
- *Harvesting your common intellectual capital will be proactive, not reactive, strategic not tacit and rewarding not discouraged.* Leaders must serve as mentors and coaches and shouldn't micromanage or be dictators. Managers should ascertain that if something worked in the past doesn't mean always that it could be easily used in the future. They must be able to redefine

brands, business models and customer value proposition. Stagnation and complacency are the enemies of innovation and growth in any public organization.

6. BENCHMARKING COMMON INTELLECTUAL CAPITAL

The Intellectual Capital Benchmarking System (ICBS) has a strategic view, and focuses on strategy formulation rather than strategy implementation. Building and improving core knowledge require organizational learning capabilities, whom include the appropriate learning structures and systems. Hyper competition set worldwide made strategic competitive benchmarking a essential learning tool. The most valuable knowledge that can be transformed into common intellectual capital into a public organization serving railway infrastructure can be ascertained from frequent comparison with world class competencies and competitors from peer segments (Viedma, 2007). Nowadays competition between organizations is set on the basis of core knowledge and core competencies. As a result, the SWOT analysis framework moves from that shown in figure 1 to that shown in figure 2.

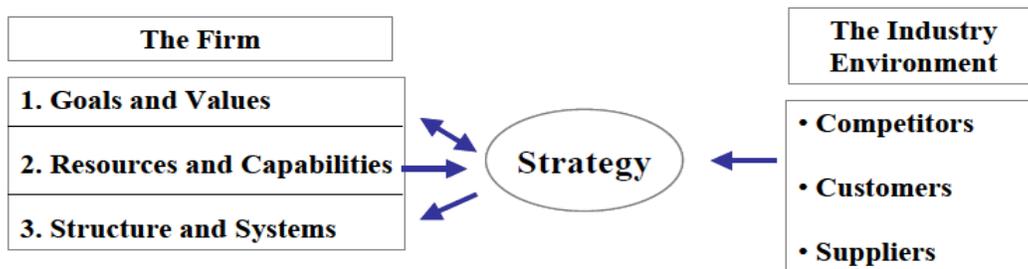


Figure 2. Simple SWOT analysis

Source: Viedma (2007)

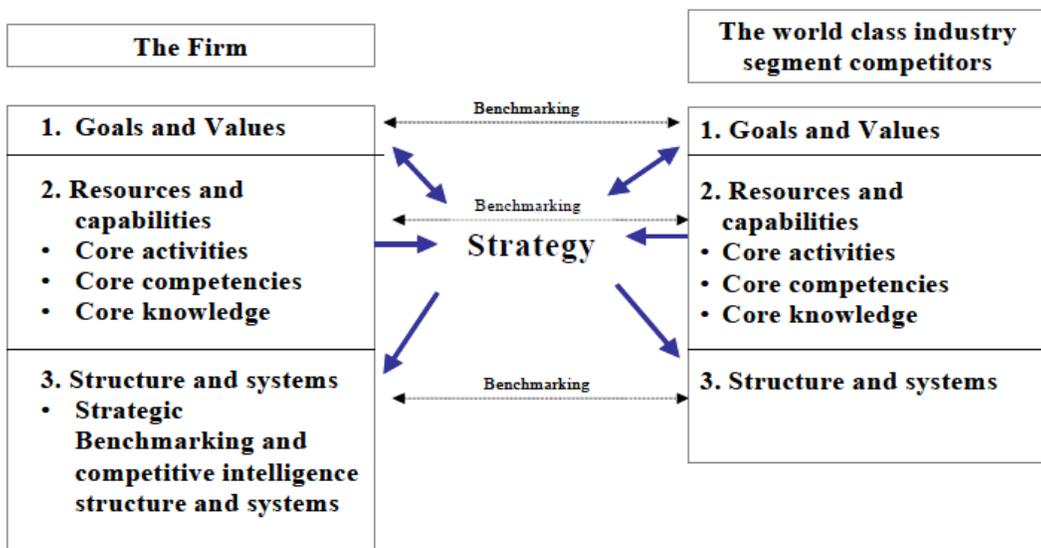


Figure 3. Extended SWOT analysis

Source: Viedma (2007)

The extended SWOT analysis provides the main factors to be taken into consideration when the management from a public organization seeks the best strategies that will ensure future competitive and durable advantages. The main factors from the extended SWOT produce the strategic benchmarking of intellectual capital systems (ICBS). In nowadays dynamic environment core capabilities must be different for the two processes. The innovation process regards new products and services through innovation value chain which base it's consisted from innovation capabilities.

ICBS has a specific system for the innovation process – Innovation Intellectual Capital Benchmarking System (IICBS) (Viedma, 2003b).

The operations process, which can produce ordinary products and services through repetitive operations value chain, require as well that the core competencies and core capabilities to be competitive, but they are different from the ones mentioned above. ICBS has a specific process for this operations value chain – the operations intellectual capital benchmarking system (OICBS) (Viedma, 2003a). The next figure will point out the two constituent parts, and specific methodologies which go on each.

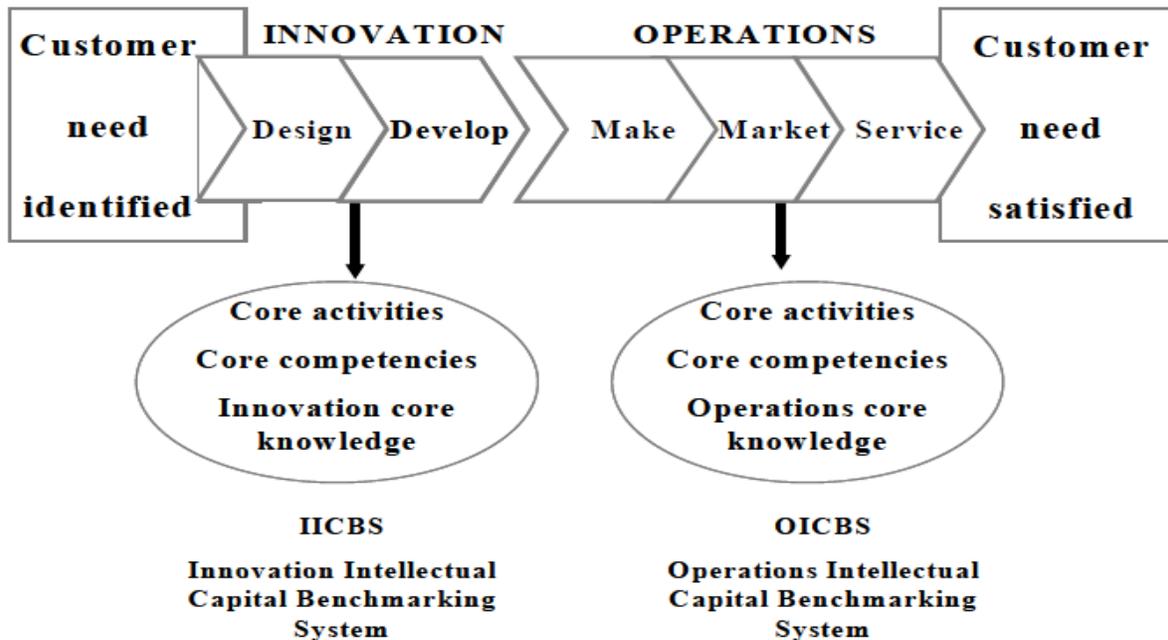


Figure 4. Business process value chain

Source: Viedma (2007)

Both models have a similar structure and work in a similar way, but there is a fundamental difference. The IICBS model refers to core activities and core knowledge of different project regarding common intellectual capital that is transformed into innovative services for the public organizations from railway industry. In contrast OICBS is referring to core activities and core knowledge of different business units common intellectual capital that are transformed into operations process for the public organizations in the railway industry.

7. THE IMPORTANCE OF TIME IN DETERMINING THE VALUE OF COMMON INTELLECTUAL CAPITAL

When the management from a public organization decides to differentiate their common intellectual capital as being either tactical or strategic, they also have decided of the impact for the entire company to a current time of a future dimension. For the organization whose intellectual properties are a source of current revenue, they usually represent current value which are considered a tactical move. Common intellectual assets, are less currently defined and are viewed as part of future revenue. Extracting value from these kind of assets is considered as thinking strategically into the future (Harrison & Sullivan, 2000).

Common intellectual capital may be the source for either one-time transaction value or ongoing, cash-flow producing value. Public organization from the railway industry should be focused on obtaining an ongoing cash producing value of their common intellectual capital, even if often intellectual capital is sold individually and not as a common asset of knowledge (Harrison & Sullivan, 2000).

One-time value. It is typically achieved by a public organization from the railway industry by doing a sale, one-time value can be determined for the market conditions existing at the time of a the sale.

Ongoing value. This value comes from the public's organization ability to produce a sustainable cash flow. In common intellectual capital terms, it summarizes the total value of the tacit knowledge the employees from a public organization from the railway industry have obtained and is being used to carry out business operational functions. That means the value will still come even after the evaluation is being made (Harrison & Sullivan, 2000).

8. COMMON INTELLECTUAL CAPITAL A DRIVING FORCE FOR REGIONAL COMPETITIVENESS

Knowledge is being recognized as the main driving force behind economic development and gaining sustainable advantages in nowadays global markets. The factor knowledge is responsible for more than 80% of a public organization in the railway industry. Being so it is important for management to be able to identify and develop more and more its knowledge core – it's regional common intellectual capital. This can further nurture the interest for new methods and tools to analyze and promote the common intellectual capital of a certain region. Tools that can be used to:

- Support research and academic institution as a common knowledge source;
- Improve the public management as interface units;
- Advance the technological base as facilitator of innovation;
- Support productive system as a competitive force.

9. CONCLUSION

The important challenge ahead is not the adoption of public organization from the railway industry of voluntary disclosure in an attempt to create a critical mass, but rather consensus by stakeholders of the type of disclosures that they believe will be meaningful. Once this hurdle is overcome, and there is a greater standardization of common intellectual capital identification and reporting in an unambiguous quantitative non-discursive format, then the next step of the valuation of common intellectual capital

can be reliably straddled by firms. This pathway will ensure a higher degree of utility to stakeholders; and, uniformity in disclosure practices, will allow a reliable comparison of intellectual capital values between firms.

In today's dynamic industrial environment which is characterized by intense competition, managements must renew themselves consistently and concentrate on performance increasing which are the key success factors. Currently, the thing that makes the managements successful is not only to use the monetary assets and to manage them, but also to use the Common Intellectual Capital, so, brain power factors efficiently.

Common intellectual capital plays a vital and inevitably significant role in the functioning of the organizations and giving more importance to this sort of capital in the organizations will contribute to the achievement of success by public companies in the railway industry in many different ways.

Recognizing the importance of benchmarking as a strategic tool allows early identification of virtuous and vicious circles, and facilitates the management of common intellectual capital in accordance with the new views and contributions outlined thus far.

REFERENCES

- Edvinsson, L., Malone, M.S. (1997). *Intellectual Capital*, Piatkus, London.
- Kannan, G., Aulbur, W.G. (2004). Intellectual capital: measurement effectiveness. *Journal of Intellectual Capital* 5(3), 389-413.
- Nahapiet, J. & Ghoshal, S., (1998). Social capital, intellectual capital, and the organizational advantage. *The Academy of Management Review*, 23(2), pp. 7-8.
- Petty, R.M., Cuganesan, S., Finch, N., Ford, G. (2009). Intellectual Capital and Valuation: Challenges in the Voluntary Disclosure of Value Drivers, *Journal of Finance and Accountancy*, pp. 2-7. Retrieved from <http://www.aabri.com/manuscripts/09177.pdf>
- Harrison, S. & Sullivan, P. H. (2000). Profiting from intellectual capital: Learning from leading companies. *Journal of Intellectual Capital*, pp. 33-46.
- Sherman, A. J. (2011). Business RX: Best practices and common mistakes in optimizing your intellectual capital. *Washington Post*, 25 December.
- Sitar, A. S. & Vasic, V. (2004). Measuring Intellectual Capital: Lesson Learned from a Practical Implementation. pp. 337-351. Retrieved from <http://www.fm-kp.si/zalozba/ISBN/961-6486-71-3/337-351.pdf>
- Ulrich, D. (1998). Intellectual Capital = Competence x Commitment. Retrieved from <http://sloanreview.mit.edu/article/intellectual-capital-competence-x-commitment/>
- Viedma, J. M. M. (2003a). OICBS: Operations Intellectual Capital Benchmarking System. An operations intellectual capital strategic. Retrieved from <http://intellectualcapitalmanagementsystems.com/>
- Viedma, J. M. M. (2003b). IICBS: Innovation Intellectual Capital Benchmarking Systems. An innovation intellectual capital strategic management methodology. Retrieved from <http://intellectualcapitalmanagementsystems.com/>
- Viedma, J. M.M. (2007). In search of an intellectual capital comprehensive theory. *The Electronic Journal of Knowledge Management*, 5(2), pp. 245-256.