



# Intellectual capital management in a South African retail company

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**Key words:** Knowledge management, intellectual capital, retail industry

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## 1 Introduction and problem statement

## **1.1 Introduction**

The balanced scorecard method was introduced by Kaplan and Norton in 1992 and has been used for the past decade as an intellectual capital management tool. However, concerns about the efficiency and effectiveness of intellectual capital assets are evident in questions about the return on investment in such assets. A more important and immediate issue that precedes such concerns is how intellectual capital assets are conceptualized, understood, assessed and measured. It is very important to measure the effectiveness of the intellectual capital management tool, because intellectual capital is an expensive commodity (Davis 2003). Intellectual capital investment should be as much a part of the planning and budgeting process as financial capital (Silverstone 1999). A review of the models can provide insights about improving current measurement frameworks (Malhotra 2003). A critical and comparative analysis of existing measurement models is expected to reveal their strengths and limitations.

## **1.2 Problem statement**

The research aimed to establish whether there is a need for developing an intellectual capital management tool in a retail company in South Africa and which framework would be the best to use.

## **1.3 Objectives of research**

This research commenced with a study of the concepts of knowledge management and intellectual capital to establish a clear understanding of the importance of the management of intellectual assets of a company. In the review of existing measurement models the strengths and weaknesses and primary uses of each model were explored to understand the different goals for using different models. After the need for an intellectual capital management tool was established, different models were considered and recommendations were made for developing an intellectual capital management tool in retail companies in South Africa.

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## **2 Knowledge management defined**

### **2.1 Knowledge**

Knowledge is part of the hierarchy made up of data, information, knowledge and wisdom. Data are raw facts (Bock 1998a) and can be represented as an item or event out of context with no relation to other things (Bellinger 1997). As opposed to data, information consists of facts with context and perspective (Bock 1998a). According to Ash (2000) knowledge is information that has been found or created, processed, distilled and packaged by the human mind. Knowledge exists out of trends or patterns between data, information and possibly other knowledge, where these patterns represent knowledge only when it is understood. It also has an element of predictability to it where it is possible to suggest its past, present and future (Bellinger 1997). According to Takeuchi and Nonaka (1995) knowledge can be differentiated between tacit and explicit knowledge. Explicit knowledge can be expressed in language and encoded in procedures and manuals, while tacit knowledge is a more personal form of knowledge, related to individual experience and involving personal factors such as belief systems, values and culture. This is a very powerful differentiation, which needs to be built into any knowledge management approach (Milton 2000:17). To accommodate the various types of knowledge in the intellectual capital management frameworks, as well as in the intellectual capital management tools, it is important to know what types of knowledge exist. Failure of the company to identify, capture and retain key types of knowledge may

ultimately lead to placing the company at risk (Milton 2000:17).

## 2.2 Knowledge management

Skyrme (1999) defines knowledge management to be the explicit and systematic management of vital knowledge and its associated processes of creation, organization, diffusion, use and exploitation. Baker and Barker (1997:65) view knowledge as being created when information, combined with experience, skills and personal capabilities (intellectual capital), is applied to the content and, more importantly, the context of a problem. This can be paraphrased in the formula:

Knowledge = Information + [Skills + Experience + Personal capability]

If knowledge, therefore, results from the application of an individual's experience, skills and personality to a problem, then it is virtually impossible to manage knowledge. But knowledge management includes people, processes, technology and structure to support it. Accurate knowledge management can be measured by the quality of the resultant output, which is dependent on how each of the components of the knowledge formula is applied to a given situation. For instance, the excellent application of skills, experience and capabilities to poor information is not likely to result in insights or learning that will add value to corporate wisdom. Likewise, the poor application of intuitive skills with high quality information is likely to lead to a sub-optimal outcome. Wiig (1996) is also of the meaning that the purpose of knowledge management is to foster and promote the intelligent behaviour of the company.

## 2.3 Intellectual capital

According to Edvinsson and Malone (1997), intellectual capital can be divided into three basic forms: human capital, structural capital and customer capital.

- Human capital – the value that the employees of a business provide through the application of skills, know how and expertise (Maddocks and Beany 2002:1–17);
- Structural capital – what is left in the organization when people go home: the supportive infrastructure, processes and databases of the organization that enable human capital to function (Maddocks and Beany 2002:16–17). Because of its diverse components, Edvinsson and Malone (1997) classify structural capital further into organization, process and innovation capital:
  - Organizational capital includes the organization philosophy and systems for leveraging the organization's capability.
  - Process capital includes the techniques, procedures and programmes that implement and enhance the delivery of goods and services.
  - Innovation capital includes intellectual properties and intangible assets, where intellectual properties are protected commercial rights, such as copyrights and trademarks, intangible assets are all of the other talents and theory by which an organization is run; and
- Customer capital – consists of more identifiable items such as trademarks, licences, franchises, but also the less definable, such as customer relationships (Skyrme 1998). Customer capital also takes note of the depth and breadth of customer interactions or relationships (Maddocks and Beany 2002:16).

There are also less well-known views on the classification of intellectual capital but, for the purposes of this article, the classification of Edvinsson and Malone (1997) will be used.

### **3 Knowledge measurement**

Knowledge and the management of all of its elements become the basis for managing the organization's intellectual capital. Through its value to the organization, intellectual capital is then transformed into intellectual property. According to Skyrme (1997), one of the success factors for the successful implementation of an intellectual capital management programme is measurement.

Most definitions describe measurement as the process of acquiring and processing information relevant to objectives. Measurement can be considered a supportive management tool, however it is considered to be the least developed aspect of knowledge management. The main objective of knowledge management is to improve the performance of the organization. A bilateral approach has been recommended that seeks to measure both outcomes and activities. Measuring outcomes focuses on the extent to which a project or a process achieves its stated objectives. In measuring activities, the focus is on how often users are accessing, contributing to, or using the intellectual capital resources and practices that have been set up (Skyrme 2002).

There are a number of approaches that are increasingly being used to measure the value of, and progress in, knowledge and intellectual capital management in organizations. Some of the most common approaches are:

- Measuring the impact of the intellectual capital management on the organization's performance
- Using the balanced scorecard to measure performance
- Measuring the return on investment (ROI)
- Measure progress in the intellectual capital management lifecycle
- Measurement through employee surveys
- Measuring the value of intellectual capital assets (National Electronic Library for Health 2003).

For the organization to have a sound working process where the company gains optimum advantage from the knowledge created and used, certain frameworks need to be developed to manage intellectual capital in an effective and efficient way.

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### **4 Intellectual capital management models**

Intellectual capital management models for measurement were developed to envision the intellectual capital management process and the relationships among its components (Gotcha 1999). According to Malhotra (2000), an effective intellectual capital management model embodies organizational processes that seek a synergistic combination of data and information-processing capacity of information technologies, and the creative and innovative capacity of human beings.

A huge variety of intellectual capital models exist, dealing with the tangible and intangible aspects of intellectual capital management. Measurement models proposed for company level analysis attempt to synthesize the financial and non-financial value-generating aspects of the company for external reporting. The most common models for measuring intellectual capital management emphasize that non-financial measures must complement the financial measures. Two attributes have been identified as vital for contributing to successful intellectual capital management by using an intellectual capital management tool:

- Types of intellectual capital leveraged by an intellectual capital management tool
- Characteristics of the intellectual capital management tool used.

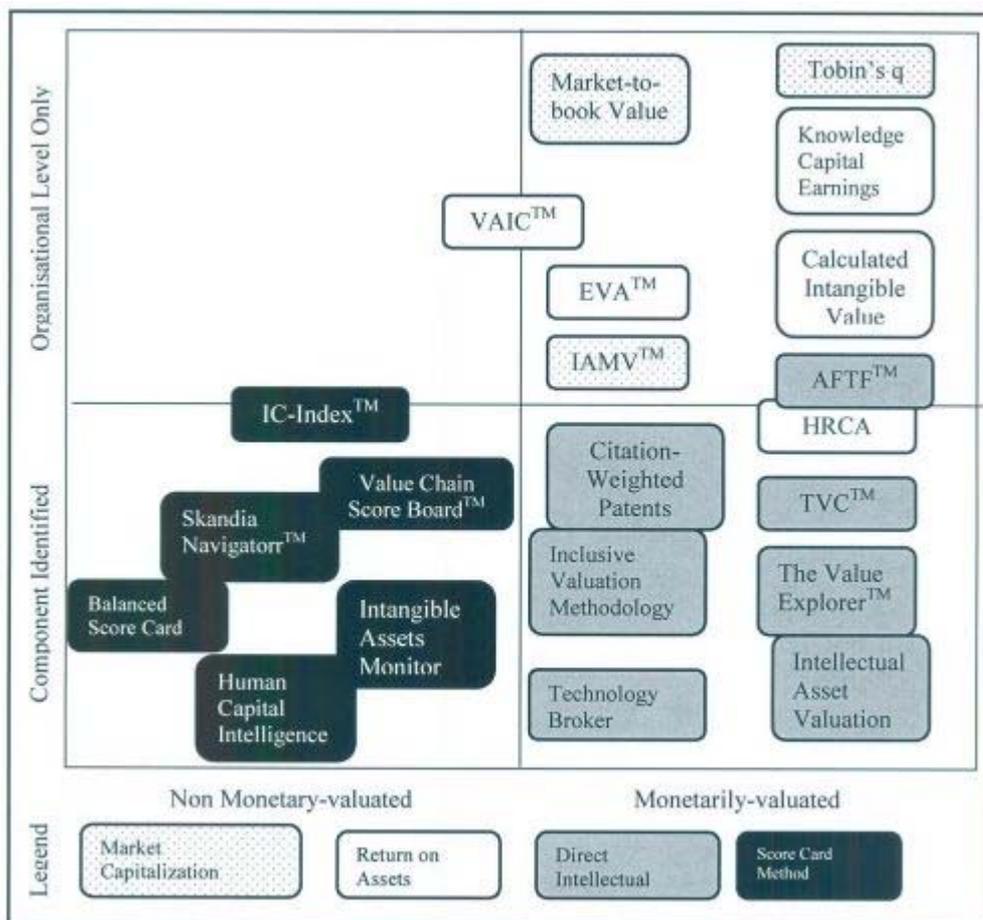
#### 4.1 Types of intellectual capital management measurement tools

According to Sveiby (2002) and Malhotra (2003) there are four basic models used to classify the tools of measurement of intellectual capital management:

- Market capitalization method
- Return on assets method
- Direct intellectual capital method
- Scorecard method.

A summary of these models are depicted in Figure 1.

**Figure 1** Classification of intellectual capital management models (Sveiby 2002)



#### 4.2 Preferred tools for the retail industry

Sveiby (2002) created a comparison of the various models based on which method will be an effective tool to use to measure certain aspects of intellectual capital in the organization. There are five main purposes that these tools are used for:

- Monitoring of performance
- Acquiring or selling of the business
- Reporting to stakeholders; guide investment

- Uncovering of hidden value.

Table 1 summarizes which method can be used for what purpose as well as a recommendation of which models will be less effective to use for these purposes.

**Table 1** Comparison of models based on specific purposes

<b>Criteria</b>	<b>Effective</b>	<b>Less effective</b>
Monitor performance	Scorecard models	Market valuation models
Acquire/sell business	Return on assets models	Scorecard models
Report to stakeholders	Scorecard and return on assets models	Market valuation models
Guide investment	Return on assets models	Scorecard and direct IC models
Uncover hidden value	Scorecard and direct IC models	Market valuation and return on assets models

Scorecard models are effective to monitor performance (control), report to stakeholders (justification), and uncover hidden value (learning). The purposes that scorecard models do not support are acquiring or selling businesses (valuation or to guide investment – decision). The return on asset models is almost as effective as the scorecard models and asset models are good at supporting the following purposes: acquiring or selling of the business (valuation), report to stakeholders (justification) and guide investment (decision). The fact that the return on assets method is only at organizational level, makes it a less effective decision-making tool than the scorecard models which are component identified and permit more versatility. The direct intellectual capital method is only suggested to be effective for learning and the market valuation method is generally not used to measure any of the above purposes. Therefore it can be concluded that the scorecard method would be the most effective intellectual capital management measurement model to aid decision making at organizational level.

The balanced scorecard is the most balanced in that it consists of four perspectives called financial, internal process, customer and learning and growth perspectives. These perspectives are relatively comprehensive and include all the elements of intellectual capital. It focuses on the external as well as internal knowledge of the organization. The types of intellectual capital it focuses on include organizational capital (knowledge in processes, knowledge in products and services), customer capital (knowledge of customers and relationships), human capital (knowledge of people) and financial capital (organizational memory).

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## **5 Retail companies in South Africa**

BitPipe (2005) describes the retail sector as being 'comprised of establishments engaged in retailing merchandise and rendering services incidental to the sale of merchandise. The retailing process is the final step in the distribution of merchandise; retailers are, therefore, organized to sell merchandise in small quantities to the general public.' These establishments require huge amounts of skill, and knowledgeable and well trained individuals to market, sell and advise customers about their products and services.

A retailer is defined as an organization deriving more than 50% of its turnover from sales of goods to the public for household use and can be divided into the following categories:

- Non-durables (food, beverages, petrol, electricity, washing material, personal care and reading matter)
- Services (rent, municipal services, medical care, education, short-term insurance, entertainment, communication, domestic workers, lotto or gambling, holidays and funerals)
- Durables (vehicles, furniture, appliances, household equipment and cell phones)
- Semi-durables (clothing, footwear, accessories, linen and curtains).

In South Africa, there are two parts to the overall retailers sector: general retailers, characterized by durable and semi-durable retailers such as Edcon, Ellerines, Truworths, JD Group, Foschini and Massmart; and food and drug retailers, typified by Pick 'n Pay, Shoprite and Spar (Gilmour 2005:85).

Retailing in South Africa is evolving into an extremely dynamic industry, driven by changes in technology, a shift in consumer shopping behaviour, saturating markets, heightened competitive forces and globalization. The immediate retail market in South Africa has outperformed its global counterparts, aided primarily by favourable economic factors, buoyant consumer confidence and the benefits of a competitive currency. The future challenge for the South African retail sector will be to drive profitable growth in an increasingly competitive market (Wilson 2003). The gains of investing in intellectual capital are the reduction of cost of capital, share price stability and a reduction of risk.

The prospects on the short to medium term for retailers, and specifically for furniture retail, seem to be prosperous. A fundamental change has taken place in the middle mass market; it is expected that this cycle will persist until at least 2010. A steady increase in household expenditure in South Africa will support the upholding of this growth. Growth in household value is predicted to increase from R9,8 million in 2005 to R11,2 million in 2008. This growth necessitates an increase in spending to account for new households (Wilson 2003).

### **5.1 JD Group as a South African retailer**

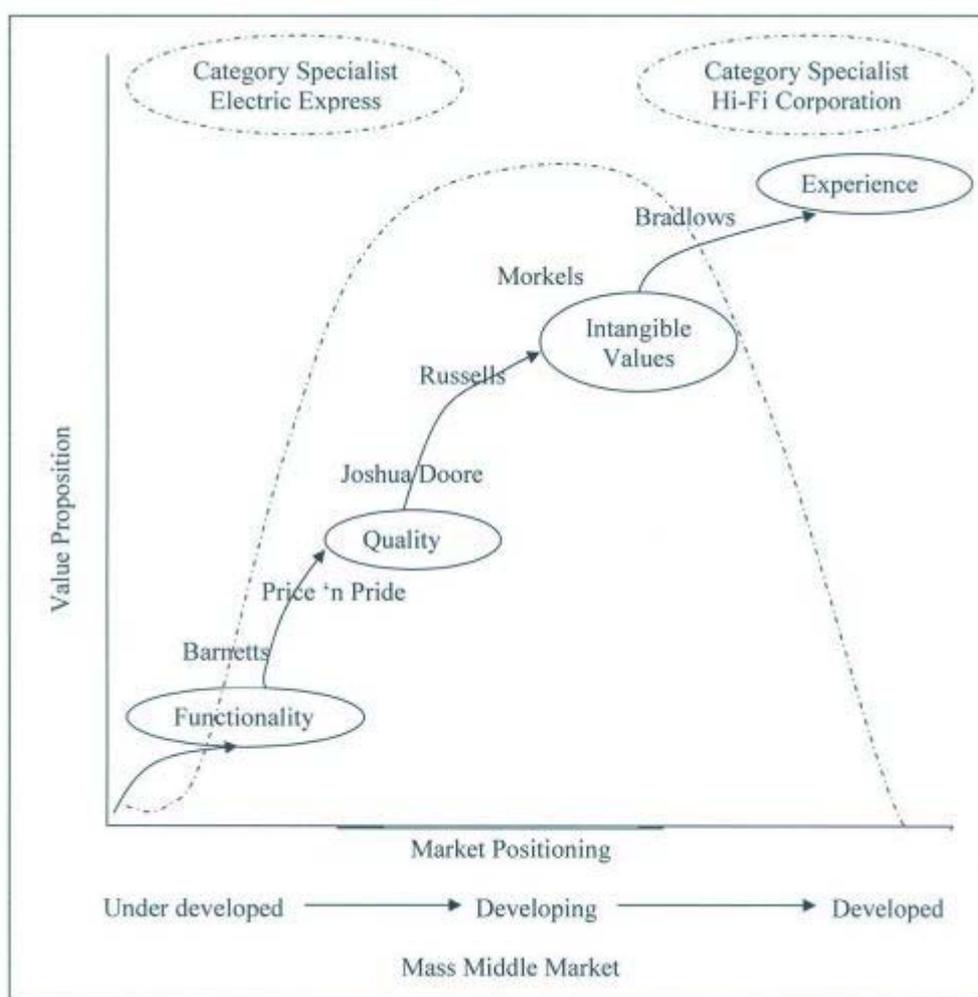
The JD Group was established in 1983, when the first Price 'n Pride store opened. Price 'n Pride was aimed at the very low end of the market for which no one else in the retail industry catered at that time. In 1986, Joshua Doore was acquired by the JD Group. Rural people could participate in the purchase of furniture supplied by the JD Group after introducing catalogue sales. In 1988 Bradlows, Score and World Furnishers were acquired. World Furnishers was absorbed into Score, and Price 'n Pride and the Group's name were changed to the JD Group. In 1993, the JD Group acquired the Rusfurn furniture group with 350 stores. After this merger, the JD Group became the biggest furniture retailer on the African continent. The Rusfurn acquisition included the two brand names Russells and Electric Express.

In 1994, JD Group International was launched to handle the business in Namibia, Botswana, Lesotho and Swaziland. In 1999, the JD Group bought 90% of the shares in the Polish retailer, Abra. In 2001 the Score brand was discontinued and its stores were incorporated in the Price 'n Pride chain. In 2003 the Competitions Tribunal approved the acquisition of the Profurn Group (including the Morkels, Barnetts and Hi-Fi Corporation brands) by the JD Group. With more than 1000 stores, 16000 employees, 2300 vehicles and R4 billion in merchandising, the JD Group can be classified as a giant in the retail sector.

The JD Group is South Africa's leading furniture retailer operating through eight chains in

southern Africa and one in Poland. The JD Group is listed on the JSE Securities Exchange South Africa in the Cyclical Services: General Retailers – Hardlines sector, and on the Namibian Stock Exchange – Retail sector. Each chain has its own identity, merchandise range and market profile concentrating on offering customers a wide range of value for money. When a graph is drawn with the focus on affordability and user functionality as the two axes, as in Figure 2, the brand names inside the JD Group form a staircase, starting with Barnetts in the lower left corner and end at the top right with Bradlows. The rest of the staircase consists of Price 'n Pride, Joshua Doore, Russells and Morkels. Hi-Fi Corporation and Electric Express, the JD Group category specialists, are the two brands that are not included in the staircase. Abra, the brand name trading in Poland, is also not included in the staircase (Lowies 2004:2). With an extensive scope of business such as the JD Group (Hughes and Foulds 2004:65), the measurement of intellectual capital becomes vital in the competitive retail environment for future strategic advantages.

**Figure 2** JD Group brand names by market positioning and value proposition (Lowies 2004:2)



## 5.2 Intellectual capital management in the JD Group

There was a need to investigate the establishment of an intellectual capital management programme within the JD Group. Even though the prospects for the future seem exceptional, the need for sustainable growth exists. This can only be done if all the assets' value in the company is unlocked, that is, employees, customers, processes, culture and more. The JD Group is very conscious of its intangibles and recognizes that the organization is not viable without these inputs. However, no formal company-wide process has been implemented to

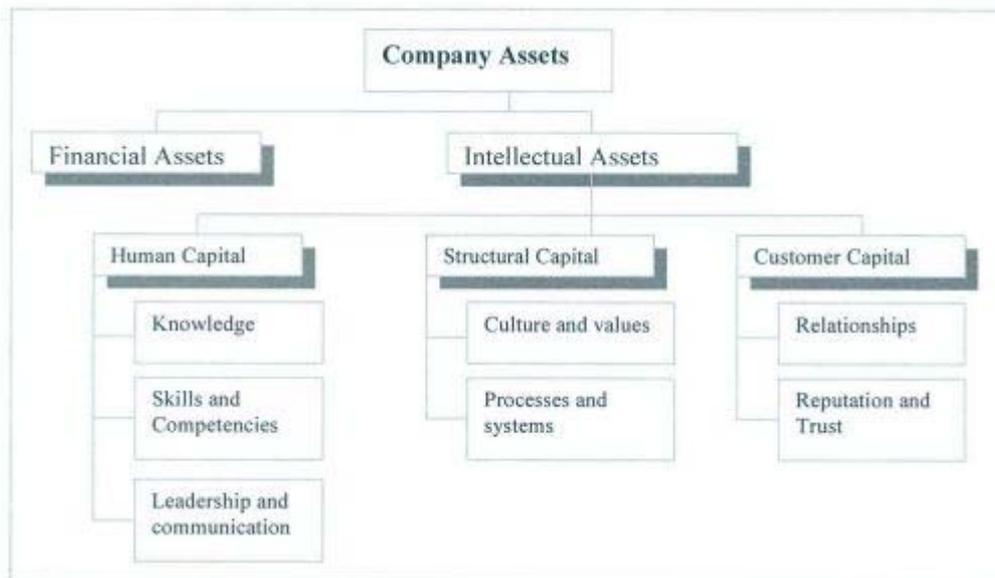
measure, track and manage the value of the intellectual capital in the company.

Attempts were made to measure intellectual capital within the JD Group, where projects were identified that might partially measure some of the intangible assets in the organization. For the purposes of this study, certain intangible assets were identified to uncover a starting point for an intellectual capital management framework that could be implemented in the JD Group. The following seven areas were identified:

- Relationships
- Knowledge
- Leadership and communication
- Culture and values
- Reputation and trust
- Skills and competencies
- Processes and systems (United Kingdom, Department of Trade and Industry 2001).

From the perspective of existing intellectual capital management models the model in Figure 3 was proposed.

**Figure 3** Intangible assets/intellectual capital framework for the JD Group as adapted from Marr and Adams 2004:20–21



The common thread running through all of the challenges facing retail is the need for business agility – anticipating or responding to changing conditions. Business agility encompasses three major areas:

- Empowering employees through knowledge management (human capital) – empowered employees to grow an organization's intellectual capital when they have the information and the tools to make better, faster decisions.
- Connecting customers and integrating business partners (customer capital) – multi-channel retailing and more efficient supply chains combine to develop deeper and richer relationships with customers and suppliers.
- Operational excellence in business operations (structural capital) – establishing and maintaining fluid organizations allow companies to transform strategies quickly, as well as to respond rapidly to new business opportunities.

This study highlighted the need for the JD Group to look beyond its existing financial statements to consider how a wide spectrum of excluded intangibles contribute to its current and future potential to create value. It is the overall mix of tangible and intangible investments that differentiate one organization from another, and with this mix a spectrum of intangibles are identified as the key components of brand and competitive advantage.

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## **6 Empirical survey**

The literature study emphasized that the measurement of intellectual capital in an organization is very important for sustainable growth. With the current South African economic climate in mind, the question was raised as to the status of intellectual capital management in retail companies in South Africa and if it would be viable to implement an intellectual capital management tool to aid these companies in growing their value.

With the empirical survey, the status of intellectual capital management in the JD Group, a retail company in South Africa, was investigated. Focus was placed on establishing an understanding of intellectual capital management by retail companies and determining whether the necessary knowledge enablers were in place to take an intellectual capital management programme forward.

There was limited literature available regarding intellectual capital management in retail companies in general. The grounded theory was chosen as research methodology because of the limited research done in this field of study. The suggested sample signifies that the respondents that were chosen were knowledge-rich individuals and would contribute valuable insights to the study (Walker 1985:30). Information was collected through personal interviews, where semi-structured questions were mainly used. Individuals from all levels in the retail company that were directly involved with everyday creation or use of intellectual capital, for example people working with the human, structural and customer aspects of the company, were selected for interviews.

### **6.1 Analysis and interpretation of findings**

#### **6.1.1 Role of intellectual assets relative to financial assets in the corporation**

Innovation, customer relationships, brand value and employee knowledge, along with other knowledge and intellectual assets are the drivers of future corporate wealth. Financial measures are still viewed as the most important area to be measured in the company. However, the perception of the importance of intangible assets is well developed in the company across all departments. A very clear understanding of the concept of intellectual assets already exists, even if the terminology is not very pronounced.

#### **6.1.2 Reasons to measure intangibles in order to manage intellectual capital effectively**

Some respondents instinctively suggested the balanced scorecard approach for measurement of intellectual capital and another respondent suggested that the portal would be an ideal point to collect input for intellectual capital measurements. Most of the gaps that were identified are in terms of measuring the human capital and the process capital of intellectual capital. Most leaders in the organization are embarking on programmes to measure intellectual capital in their field of expertise.

#### **6.1.3 Considerations used to build a sound business case for intellectual capital management in this company and the potential pitfalls of trying to implement**

## **intellectual capital management**

Innovation should be one of the building stones of a business case for intellectual capital. Previous experiences and lessons learnt should be taken into consideration and the change of culture to accept the measurement of intellectual capital would be one of the biggest challenges in the JD Group.

### **6.1.4 Detection and correction of errors needed to align inputs and processes with outputs and outcomes to monitor performance**

Formalized routines aid in being pro-active and prevent huge errors from occurring. Proper testing, watertight specifications and thorough training are part of business processes optimization. It is very important to have a constant focus on validation to maintain credibility. User input is also an important aspect in the detection of errors. If business processes are working optimally, but the perception from users is skewed, the outputs and outcomes will be unsuccessful.

### **6.1.5 Uncovering of hidden value of innovation capital in the organization**

Exposing the hidden value of the JD Groups' innovation capital already proved to be very advantageous. The differentiation process opened small niche markets for the JD Group that its competitors have not explored yet. A tremendous amount of hidden value has already been uncovered. By means of the people differentiation project there is much more hidden value to uncover in the future.

### **6.1.6 Major criteria used for policy making in the organization**

There exists a strong culture of control because of a strong culture of performance. Policies are decided upon to enforce good business processes and practices and are filtered through tactical and operational structures. Bigger policies are generally gleaned by looking at performance-based or internal data, also by gathering external data to see the potential that the market has and by making a cost benefit decision on policies that need to be changed. Communication was definitely identified as a tremendous weakness of the JD Group and a shared framework might be a possible solution to this frustration. A shared framework would give knowledge workers the improved ability to make better decisions. Lots of time is wasted on verifying decisions that have been made.

### **6.1.7 Existing programmes that are measuring aspects such as customer satisfaction, employee value, innovation, processes or company culture that report to stakeholders**

There are many programmes that measure intellectual capital aspects in the JD Group, but they tend to be discreet interventions and to be a snapshot in time. There are no systems in place to measure customer satisfaction or innovation or employee valuation consistently.

### **6.1.8 Usefulness of implementing a single tool that would help to monitor performance, report to stakeholders and uncover the hidden value of things that are difficult to measure with current processes and systems**

An investment needs to be made now in order to become an intelligent organization. Although there is a little trepidation noticed in the respondents, most are positive and realize the value of such a tool and realize that the current company culture will probably not receive such a tool very well. There are also various opinions regarding what would be the best tool to use. The JD Group as a retail company has made progress in the intellectual capital arena, but several immense gaps were identified.

## 7 Conclusion

It was found that, although the JD Group already measure several elements of its intellectual capital, it does not have a proper intellectual capital management mechanism in place. The significance of intellectual capital management for future excellence was comprehended, yet the relevant tools to interpret and share knowledge were not in place. It would be advisable to invest time, money and other resources to determine the appropriate tools at present to derive maximum value from intellectual capital management practices in future.

The following suggested changes are intended to provide an indication of what is needed for a company to remain competitive by means of intellectual capital management, but also to work towards a future, sustainable position.

*Organizational culture:* Based on the knowledge enablers discussed, there should be attempts to create a culture that is sufficiently flexible in accepting change and the speed with which change occurs. This has already been partly addressed with the introduction of a change management behavioural programme.

*Leadership style:* Complementary to a change in organizational culture, there should be a change of leadership style. A leadership model and framework was agreed on during 2003 and is utilized as the core benchmark in terms of developing leadership capacity in the Group. This has further resulted in the introduction of a number of development programmes.

*Technology deployment:* In terms of technology as a knowledge enabler, an electronic learning environment will be introduced that will be utilized as a supplementary resource in imparting skills to employees.

*Human capital:* Human capital plays an enormous part in the future and success of any company. The following aspects should be considered when implementing an intellectual capital management tool:

- *Capability focus:* The JD Group can no longer just hire, train or reward individuals but must rather undertake these activities in the interest of creating a set of organizational capabilities. HR must begin constantly to seek the capabilities necessary for success.
- *Successful change:* HR professionals within the JD Group facilitate in the creation of a JD Group that responds faster to its competitors by learning to handle both predictable and unpredictable changes and thereby become a winning organization.
- *Attracting, retaining and measuring competence and human capital:* Securing human capital involves sharing ideas and information through the company and becoming a learning organization. New policies and practices must be created that encourage such learning and the creation of a learning organization and culture within the JD Group. An organization must be created in which intellectual capital is constantly updated. All metrics must be tied to organizational strategy in order to ensure that traditional measures of success (economic) are coupled to intangible measures (intellectual/people) capital.

*Structural capital:* World-class/business performance improvement/differentiation: In future, the JD Group must be assisted in creating models and processes for attaining world-class agility, effectiveness and competitiveness, within the context of underpinning and supporting a chain and the JD Group's differentiated position. Thinking globally, but acting locally.

*Customer capital* (value chain for business competitiveness): Business practices must be refocused towards customers, community and the value chain (employees and suppliers) and less on transactional activities within the company. This will create training opportunities with a value-chain perspective and will weave suppliers, employees and customers into value-chain teams.

*Financial capital* (profitability through cost and growth): Profitable growth will require rethinking organization and decision-making tools so that growth aspirations can be realized through organizational actions. It is an ongoing task of intellectual capital management to find new ways in conjunction with business management in designing and delivering organizational practices that deliver profitable growth.

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