

An overview of the intellectual capital of the organization

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Abstract— Although the literature highlights the contribution of different marketing assets to firm performance, it is still far from reaching a consolidated and exhaustive position on this topic. In that respect, this paper proposes an analysis of the intellectual capital within new business ventures. In this sense, intellectual capital (IC), or knowledge assets, as the fourth factor of production, is replacing the other ones job, land and capital. Businesses with ethical values at the core reinforce ethical conducts and successfully build trust with their various stakeholders, leading to the formation of an ethical and trustworthy corporate culture and a positive corporate environment. Thus, in this reasoning, an ethical approach to business can encourage open communication, problems solving, knowledge sharing and creativity among employees to increase organisational capital; enhance interactions and relationships with suppliers, customers and other stakeholders to increase social capital; attract and retain good talent to increase human capital. The results indicate that firms with higher business ethics have increased intellectual capital.

Index Terms— intellectual capital, organisational capital, business

1 INTRODUCTION

Chia Chin Chang et al in 2013 studied on evaluating the Operational performance of knowledge based industries: the perspective of intellectual capital. Performance evaluation is more than a quantitative concept but should also take industrial characteristics into account in order to form an accurate evaluation. In the past, evaluations of the operational performance of knowledge based industries have missed out a significant factor, which is intellectual capital (IC). In addition, human resource capital and customer capital are the most significant influential factors that deserve digital content firms' attention. It is suggested that enterprises in the digital content industries should focus more on managing their IC. DEA can provide the semiconductor firms' operations with insights into resource allocation and competitive advantage as well as help with strategic decision-making. The main research goal of this study is to measure the operational performance of the digital content industry from the IC perspective. Considering the measurement of overall and individual IC, this study aimed to measure the overall operational performance of the digital content industry. This study has contributed to describing the critical role of IC in the digital content industry. The authors utilized the IC perspective in order to objectively measure the efficiency of the operational performance of firms and to find out what was the most critical element in the industry. Through the measurement characteristics of DEA, the authors integrated more data concerning input and output, containing data on input resources and output performance, in order to

analyze the TE of the operational performance of the firms in the sample.

Esther Hormiga et al in 2011 investigated on The role of intellectual capital in the success of new Ventures. Identifying the factors that contribute to the success of new ventures is a difficult and challenging task. In that respect, this paper proposes an analysis of the intellectual capital within new business ventures. Based on the study of a sample of 130 new companies, for the purpose of this work we have analysed the influence of the proposed intangible assets on the success of newly-created organizations, acknowledging the key role of the human and relational capital in the first few years of the life of the business. This research constitutes one of the first steps towards a better understanding of the importance of intangible assets in newly-created firms. The results reveal the relationship between intangible assets and the success of newly-created firms. One of the principal conclusions reached in this study is the importance of human capital to the performance of firms in the first stage of life. Thus, the results show the importance of the already frequently highlighted role of the entrepreneur, whether because of his/her knowledge or the time and effort invested in the venture. Moreover, if the company is formed by a team, satisfactory intercommunication between the members plays a key role since, bad communication and coordination could lead to an inability to develop the business idea in an appropriate way and represent a liability for the firm.

Eric C. K. Cheng and John C. K. Lee studied on Knowledge Management Process for Creating School Intellectual Capital. This paper explores the predictive relationship between knowledge management (KM) processes and school intellectual capital (SIC). SIC is at the core of what society deems to be the purpose and definition of successful schooling. KM aims to support organizations in creating a mechanism that measures, stores and transforms knowledge into intellectual capital. Results of the factor analysis showed that knowledge creation

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was excluded from the KM processes while internal capital was split into structural capital and routine capital. Results of the multiple regressions showed that knowledge retrieval and knowledge sharing are the predictors of all four components of SIC, while knowledge application predicts human capital alone. These findings reflect that schools in HK have adopted personalization KM processes to develop SIC. School leaders could consider cultivating community of practices in their schools for developing SIC for sustainable development.

Tommaso Pucci et al in 2013 investigated on measuring the relationship between marketing assets, intellectual capital and firm performance. Although the literature highlights the contribution of different marketing assets to firm performance, it is still far from reaching a consolidated and exhaustive position on this topic. Several authors have, in fact, proposed metrics and performance measurement systems related to marketing strategies, but the relationship between specific marketing resources and overall firm profitability needs further analysis and empirical research. This paper proposes a framework to measure the effect of the use and interaction of different marketing assets on firm performances, through their impact on the level of the firm's intellectual capital. We test our framework by adopting a quantitative approach, providing evidence from within the Italian children's clothing industry. The empirical analysis highlights that: (a) there is a positive direct relationship between a firm's intellectual capital value and its performance; (b) the combination and interaction of specific marketing resources affect the intellectual capital value. The results show that the intellectual capital value can be used as a synthetic indicator to evaluate the impact of some specific marketing resources on business performance.

Wei-Kang Wang et al in 2013 studied on The relationship between bank performance and intellectual capital in East Asia. In this paper, we develop a performance efficiency value by using data envelopment analysis (DEA) to integrate five perspectives of CAMEL (Capital Adequacy, Asset Quality, Management, Earnings, Liquidity), which is used by the Federal Deposit Insurance Corporation to evaluate banking performance. In addition, we utilize a tiered DEA to categorize banks into four groups. One-way ANOVA is used to analyze differences in CAMEL and intellectual capital (IC) variables across the four groups. CAMEL variables are manifested more strongly in highly efficient groups when compared with inefficient groups. The findings also reveal the importance of IC in achieving high levels of bank efficiency. Rapid changes in the economic environment have raised the need to evaluate the performances involved in banking, especially after the Asian financial crisis and the financial liberalization in East Asia. Although bank efficiency has been widely discussed in the previous literature and the DEA technique is frequently used to explore this topic, there are still some important points not touched. The banks that appear to have a better financial ratio performance in the five perspectives of CAMEL form the efficiency frontier. Further investigation would be the examination of performance over time by using the Malmquist productivity change index techniques. Such an approach would allow for a dynamic view of the multidimensional performance of banking performance in East Asian countries. We also hope that the models and methods used in this study will bring

about related research in other industries.

Gregorio Marti'n de Castro et al in 2011 investigated on Towards 'An Intellectual Capital-Based View of the Firm': Origins and Nature. Economic and social activities are undergoing radical changes, which can be labelled as 'knowledge economy and/or society'. In this sense, intellectual capital (IC), or knowledge assets, as the fourth factor of production, is replacing the other ones job, land and capital. This article tries to offer the origins and nature of the firm's IC that can be labelled as 'An Intellectual Capital-Based View of the Firm Competition' This framework tries to highlight the strategic role of different intangible assets like talented and committed workers, cultural values, or long-term relationships among the firm and its stakeholders customers, allies, suppliers and society in general in gaining and sustaining competitive advantages, being the management of IC a key issue in the management agenda. In this sense, the main objective of this study has been to show the origins and nature of firm's IC, signalling two main steps, from a practitioner interest to an academic one, and showing the concept and typology of it. An accepted classification of IC distinguishes among the following ones (Marti'nez Torres, 2006): human capital; structural capital; and relational capital.

B Sebastian Reiche and Anne Wil Harzing and Maria L Kraimer in 2009 studied on the role of international assignees' social capital in creating inter unit intellectual capital: A cross level model. We conceptualize international assignees as informational boundary spanners between multinational enterprise units, and develop a cross-level model that explores how assignees' social capital translates into inter-unit intellectual capital. First, as knowledge brokers, assignees create inter unit intellectual capital by linking their home and host-unit social capital, thereby enabling cross-unit access to previously unconnected knowledge resources. We conclude that individual social capital needs to be explicitly transferred to the organizational level to have a sustained effect on inter-unit intellectual capital. The conceptual framework presented in this paper indicates that the process of knowledge flows across MNE units is complex, is ongoing, and involves multiple levels of analysis. Together, these arguments call for more longitudinal research and multilevel theoretical models to better understand how certain assignee and unit-level characteristics impact on MNE knowledge flows and thus better understand how we can conceptualize, measure and facilitate cross-unit knowledge transfer in MNEs.

Hwan Yann Su in 2014 investigated on Business Ethics and the Development of Intellectual Capital. This paper documents that business ethics has positive impacts upon the development of intellectual Capital Knowledge has become the most important asset of modern businesses, and this study argues that business ethics is associated with the development of intangible knowledge resources intellectual capital. Knowledge has become the most important asset of modern businesses, and this study argues that business ethics is associated with the development of intangible knowledge resources intellectual capital. Businesses with ethical values at the core reinforce ethical conducts and successfully build trust with their various stakeholders, leading to the formation of an ethical and trustworthy corporate culture and a positive corporate environ-

ment. The results suggest that business ethics is associated with increased intellectual capital. Thus, this study demonstrates that the development of intellectual capital is in line with strengthened ethics. It contributes to the literature through combining research on business ethics with intellectual capital theories and extends the extant intellectual capital literature.

Emma Su and Michael Carney invest in 2013 studied on Can China's family firms create intellectual capital? Intellectual capital is a firm's knowledge and knowing capability that enriches and aggregates the firm's human capital. In so doing, it increases a firm's capacity for innovation and strategic differentiation. Since intellectual capital is a function of the firm's social capital, and because China's family firms tend to exhibit a unique social capital profile, we develop three propositions about the relationship between social capital, capacity for knowledge transfer, and intellectual capital formation. These propositions arise from our cross-case study methodology, based on findings from case studies of intellectual capital formation in fifteen family firms, located in the city of Wenzhou, China. Consistent with the resource-based view of the firm, we show that the processes involved in creating intellectual capital are both socially complex and causally ambiguous, and are distributed heterogeneously among China's growing population of family firms. So to return to the initial question Can China's family firms create intellectual capital? Our answer has focused upon the importance of the relationship between family and organizational social capital and, in this regard, we believe family social capital is a value to be optimized, but not maximized; too much family involvement is likely to inhibit the development of intellectual capital. However, since the process involved in producing this profile is causally ambiguous and socially complex, we believe firms will vary in their creative capacities, and that creativity will be distributed heterogeneously over China's growing population of family firms.

2 RESEARCH DESIGN

2.1 Collection and selection of samples

This was done to ensure the consistency and inclusiveness of the collected data. Moreover, the authors also referred to the Digital Content Industry White Paper published by the Digital Content Industry Promotion Office of Taiwan's Industrial Development Bureau in 2005, which listed the main digital content firms in Taiwan, when modifying the scope of the sample. In the end, information regarding 21 firms was selected and obtained for the data sample for the purposes of this study.

2.2 Selection and definition of variables

The research results of the studies by Wu et al. (2006) and Edvinsson and Malone (1997), in terms of suitable measurement indicators of IC, have frequently been adopted by other researchers. The indicators which they developed vary due to the distinctive IC of different industries. In addition, taking into account the factors of the availability and objectivity of the data and the consistency with the DEA method in terms of the presumed isotonicity, the authors selected four input variables: the number of employees, R&D expenses, administrative expenses and advertisement expenses. The selected out-

put variables are: net revenue and stock of IC. The purpose of selecting these variables is to present in full the operational performance of digital content firms from the perspective of IC. The selected variables, including the input and output variables, are depicted in detail in the following section.

3. FIRM'S INTELLECTUAL CAPITAL: ORIGINS AND CONCEPT

The rise of the knowledge-based economy and society has been attributed to the predominance of intellectual capital (IC) as a key resource for obtaining firm's sustained competitive advantages (Dean and Kretschmer, 2007). Although it has been recognized that economic wealth comes from knowledge assets or IC and its useful application (Kong, 2010; Teece, 1998), the emphasis on it is relatively new, and the management of firm's IC has become one of the key tasks in the executive agenda. Nevertheless, this work is especially difficult because of the problems involved in its identification, measurement and strategic assessment. In this situation, the models of IC become highly relevant, because they not only allow to understand the nature of these assets, but also to carry out their measurement.

4. ACADEMIC EMPHASIS

Starting the new century we can appreciate a significant shift of IC towards the Academia. The emergence of specialized academic journals as 'journal of intellectual capital' in the year 2000, as well as 'special issues' appear in other scientific journals as 'R&D management' in 2005, or becoming a key focus of relevant academic and scientific associations of business administration's like Strategic Management Society, Academy of Management or International Association for the Management of Technology. The interest of academic world on IC is highlighted in the bibliometric analysis developed by Dean and Kretschmer (2007), where they analyse articles focused on IC, as well as other topics related as 'human capital' or 'social capital', published in journals indexed in the JCR-SCCI from 1958 to 2004. Trying to follow this effort, in the next figure we show a bibliometric analysis developed for the first quarter of the JCR-SSCI, Business and Management categories, from 2000 to October 2009. As we can see, a total number of 37 published articles are focused on IC, with an increasing path during this decade (Figure 1). Taking into account the nature of proposals made during this stage, the focus of IC studies shifts towards its strategic assessment and implications for firm effectiveness. In this sense, there are studies that try to link IC with technological innovation (e.g. Subramaniam and Youndt, 2005) or with competitive advantage (e.g. Cabrita and Bontis, 2008) or trying to develop a new theory, of middle range and pragmatic, that tries to overcome the manifested difficulties owned by the resource-based view, which Reed et al. (2006) label "An Intellectual Capital-Based View of the Firm". Subramaniam and Youndt, 2005) or with competitive advantage (e.g. Cabrita and Bontis, 2008) or trying to develop a new theory, of middle range and pragmatic, that tries to overcome the manifested difficulties owned by the resource-based view, which Reed et al. (2006) label "An Intellectual Capital-Based View of the Firm".

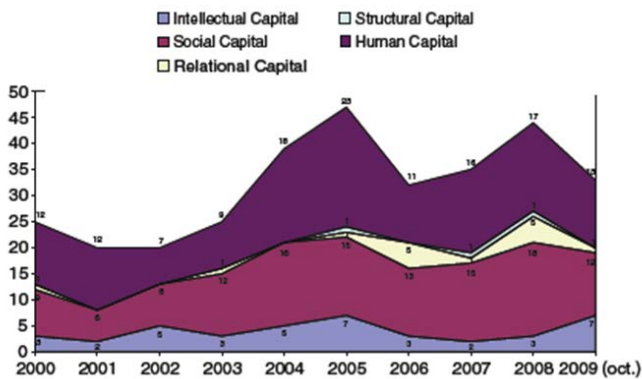


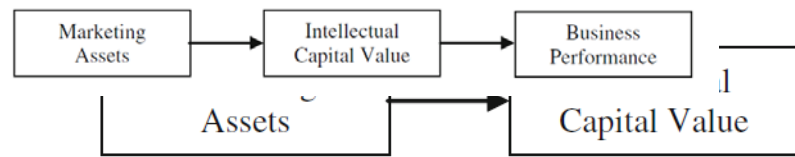
Figure 1. Intellectual capital evolution on JCR-SSCI, management and business categories, first quarter.

5 CONCEPTUAL FRAMEWORK AND HYPOTHESES

In accordance with the literature reviewed (Hooley et al. 2005), firms can effectively and efficiently adopt marketing practices if they have or can obtain certain marketing resources (relationships with clients, reputation, innovation capability, human resources, marketing culture, commercial and managerial capabilities). Moreover, in mature industries with an increasing concentration of firms, where the most competitive gain market shares, distancing them from their weaker rivals (Malerba and Orsenigo 2002), the possession of difficult-to-imitate or difficult-to-acquire resources has a more positive impact on firm's profits (Acquaah and Chi 2007). We thus propose a process through which the combination and interaction of different marketing assets affect the firm's performance through their contribution to the intellectual capital value (Fig. 2). In the literature, some authors suggest that there may be a positive relationship between intellectual capital and performance (Seggie et al. 2007), while others show that research carried out in different industries led to contradictory results (Ittner 2008). We therefore test our first hypothesis: Based on the model proposed by the literature, reputational assets, such as brand and company name (Hooley et al. 2005), the capability to develop close and strong customer relationships through the control of distribution channels, as well as the capability to effectively manage the communication and promotion process (Vorhies and Morgan 2005) are marketing resources that affect firm performance. Moreover, the Davey et al.

Hypothesis 1 Intellectual capital value is positively associated with economic performance. (2009) framework, besides providing a battery of indicators that can be used to investigate intellectual capital disclosure, suggests the opportunity to verify the possible link between some more relevant indicators and the effective level of a firm's intellectual capital. In fact, the authors include the following items in their framework, as components of relational capital disclosure: boutiques and stores, licensing agreements, franchising agreements. The authors also propose the hypothesis that "brand promotion through sponsorship, brand development through advertisement and brand development through fashion shows give

additional detail to the intellectual capital associated with brands and their value to companies"



CONSOLIDATION:

This research constitutes one of the first steps towards a better understanding of the importance of intangible assets in newly-created firms. The results reveal the relationship between intangible assets and the success of newly-created firms. One of the principal conclusions reached in this study is the importance of human capital to the performance of firms in the first stage of life. Rapid changes in the economic environment have raised the need to evaluate the performances involved in banking, especially after the Asian financial crisis and the financial liberalization in East Asia. The conceptual framework presented in this paper indicates that the process of knowledge flows across MNE units is complex, is ongoing, and involves multiple levels of analysis. We argued that individual social capital needs to be explicitly transferred to the organizational level to have a sustained effect on inter-unit intellectual capital. The mere movement of staff across organizational units is thus an insufficient condition for initiating knowledge transfers. This study has addressed the question of how business ethics is associated with the development of intellectual capital in businesses. This study argues that business ethics is associated with the development of all three components of intellectual capital organizational, social and human capitals and shows the importance of business ethics in their development. A structured questionnaire survey was adopted as the research method, and the sample was firms in the high technology industries listed in the TSE and GTSM. The results indicate that firms with higher business ethics have increased intellectual capital.

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