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## Keynotes – eingeladene Vorträge

### 1 Knowledge Management – Advancements and Future Research Needs – Results from the Global Knowledge Research Network study

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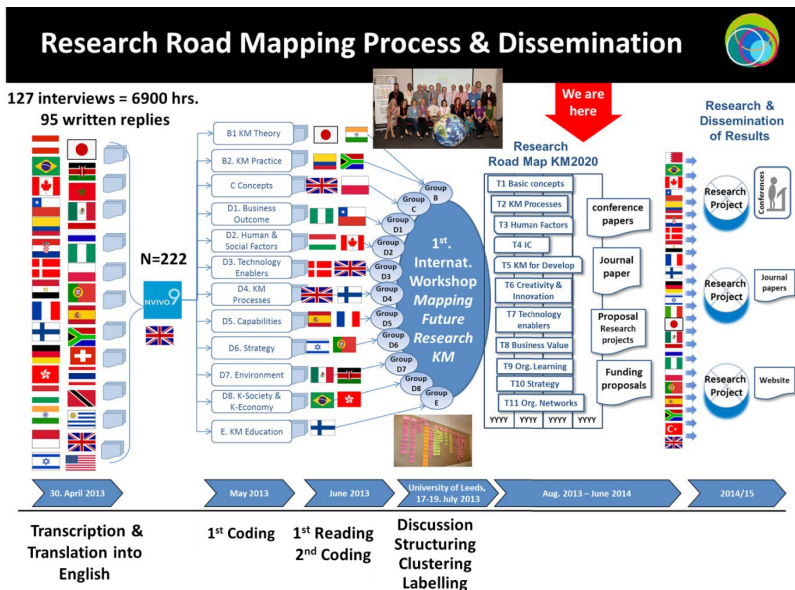
Over the last two decades the role of knowledge in organizations has attracted considerable attention from organizational practice and academia (Beamish & Armistead, 2001; Blackler, Reed, & Whitaker, 1993; Grant, 1996; Jasimuddin, 2006; Nonaka, 1994). A broad research community has emerged around with about 40 peer-reviewed journals (Serenko & Bontis, 2013a, 2013b; Serenko, Bontis, Booker, Sadeddin, & Hardie, 2010) which has attracted scholars from fields such as management, information management and library sciences, psychology and organizational studies, sociology and computer sciences as well as engineering and philosophy (Baskerville & Dulipovici, 2006; Gu, 2004; Lee & Chen, 2012; Martin, 2008; Venzin, Von Krogh, & Roos, 1998; Wallace, Van Fleet, & Downs, 2011). The assessment of the KM field ranges from suggestions that KM is in a state of “pre-science” with different paradigms and disagreement about fundamentals in the field (Hazlett, McAdam, & Gallagher, 2005) while others see a ‘healthy arena with a strong foundation in multiple theories and clear direction for future work (Baskerville & Dulipovici, 2006).

In organizational practice one can hardly find any sector which has not embarked on a project or program to improve the use of knowledge inside the organization. KM projects have been carried out in areas such as aerospace and construction industry, in farming and consumer goods, in medicine and nuclear energy, etc. KM is still among the 25 most popular management tools, but with low satisfaction scores (Rigby & Bilodeau, 2011). It was claimed that KM continues to suffer from an image problem which results from the combination of its overselling by vendors and consultants in the 1990s (Martin, 2008). Nevertheless, a representative study of businesses in Germany (n=3401) concluded that knowledge-oriented management has a significant influence on performance (Peter Pawlowsky, Goezalan, & Schmid, 2011; P. Pawlowsky & Schmid, 2012).

The partners of the Global Knowledge Research Network from 27 countries regarded it a timely effort to explore the assessment of the KM field by academic researchers and organisational practitioners involved in KM research and KM practices. Based

on previous research about the future of KM (Scholl, König, Meyer, & Heisig, 2004), this study aimed to identify the advancements and challenges in KM theory and KM practice as well as to discover the research needs related to the concept of knowledge and the core areas of KM such as relation to dimensions derived from KM Frameworks accepted in Europe (CWA 14924, CEN 2004) and Asia (APO 2009) such as business outcome, human and social factors, technology, KM processes, capabilities, strategy, the organizational environment. The dimension „knowledge society and economy“ was added based on the suggestions by members from emerging economies.

The research partners have gathered the input from 221 KM experts from 38 countries representing 42 nationalities from 16 different industries plus governmental bodies, international organizations and NGO's and 16 different academic disciplines.



The sample's **regional distribution** is 52% from Europe (114), 24% from America (54), 14% from Asia (32) and 10% from Africa (21). We received 111 contributions (50.2%) from KM practitioners from businesses, 7 (3.2%) from governmental institutions, 3 (1.4%) from international organisations, 1 (0.5%) from NGO and 99 (44.8%) from academia.

About a third fulfil an internal **KM role** (24.4%) or work as external KM consultant (6.8%). Director or management roles are held by 13.6% and 10.4% have other roles in the business. 30.8% of experts are professors (including junior or assistant professors), 10.4% are lecturers or researchers (incl. senior) and 6 hold another role in academia.

The **industry sectors** most represented as a percentage of the total sample are Consulting & Professional services 16.7%, IT & Software 9.0%, Energy & Raw Material 5.4% , Aerospace 3.6%, Government 3.2%, followed by Electric (2.3%), Banking & Insurance & Finance and Chemical & Pharmaceutical and Engineering & Capital Goods (each 1.8%), Construction (1.4%), and 1.4% each from Automotive, Consumer Goods, Food & Agriculture, Telecommunications, Other services, other manufacturing, and one from Media & Film and Trading.

The sample represents over 17 **disciplines** with 32.4% from Business & Management, 16.4% from Engineering, 9.1% from information sciences, 7.3% from Computer Sciences, 6.4% from Knowledge Management. The remaining 28.3% are distributed among Economics and Sociology (both 3.2%), Philosophy, Natural Sciences, Psychology (each 2.7%), Business Information Systems and Law (both 1.4%), Architecture, Geology, Political Sciences (each 0.9%), Humanities, Languages, Art (0.5%) and other disciplines (4.1%).

The data has been analysed involving over 20 academic partners from Africa, Asia, Europe, Latin America and North America.

The following paragraphs will provide a brief overview of the results from this global study. Further analysis and discuss the implications for KM research and KM practice is currently undertaken and will be presented at the conference.

### **KM Theory & KM Practice: Advancements – Challenges – Approaches (B1-B6)**

A broad majority of experts recognised advancements in organizational KM practice (97%) and KM Theory (87%), but with no clear consensus as very heterogenic themes were mentioned by the experts in their explanations. The only theme which stand out from the multitude of topics mentioned in regards to advancements in theory and practice is ,social networking / social media‘.

A broader consensus among KM experts is shown in regards to the challenges with two thirds pointing towards the *‘link between KM and organisational outcomes, such as performance and value-creation’*.

One out of five experts suggest that *‘interdisciplinary approach (integrating several disciplines such as artificial intelligence, economics, sociology, anthropology, culture studies, OB, ...)’*. (MA-01-HE-PRO-12-BM) Similar, *“(...) that a much more inclusive, expansive, multi-dimensional perspective on what knowledge management involves needs to be used.”* (CA-08-CPS-DIR-13-BM). This result confirms earlier research from a global Delphi study (Scholl, Heisig, 2003; Scholl et al. 2004) advocating for interdisciplinary and multi-disciplinary approaches, too.

### **Core Concept: Knowledge (C)**

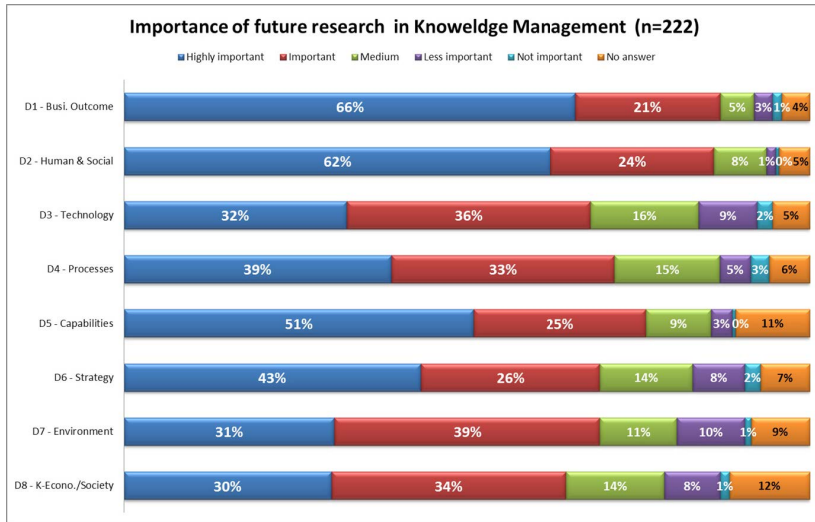
A surprising result from this study is that the majority of KM experts from academia (80%) and practice (55%) support research about the basics of the discipline to improve the understanding of the underlying concepts of KM such as ‚knowledge‘. Advocates would like to (a) avoid misinterpretation, (b) reduce confusion, (c) guide practice and (d) increase the understanding of the complexity associated with the concept of knowledge. The aim is less towards finding *„a consensus, but to open new lines of research in aspects which may be relevant in today’s society.”* (ES-04-CPS-EKM-15-BM).

### **KM Dimensions (D1-D8)**

While the first part of the interviews were very broad open questions to trigger reflection by the KM experts, we used the core dimensions for accepted KM frameworks (CEN, 2004; APO 2009) to elicit assessments regarding the importance of future research in certain topic areas. The ranking which places ‚Business Outcome‘ (D1) first, confirms the results from the section B2/B5 regarding the challenges KM faces in academia and organisational practice.

In regards to the ‚Business outcome‘, KM needs to demonstrate its positive influence on organisational outcomes in order to gain relevance in practice and academia. While practitioners and academics recognise the challenge of such an endeavour, both agree that the outcome needs a broader understanding (e.g. Intellectual capital, maturity models) than in financial terms only. Case studies, multidimensional and longitudinal research approaches are suggested.

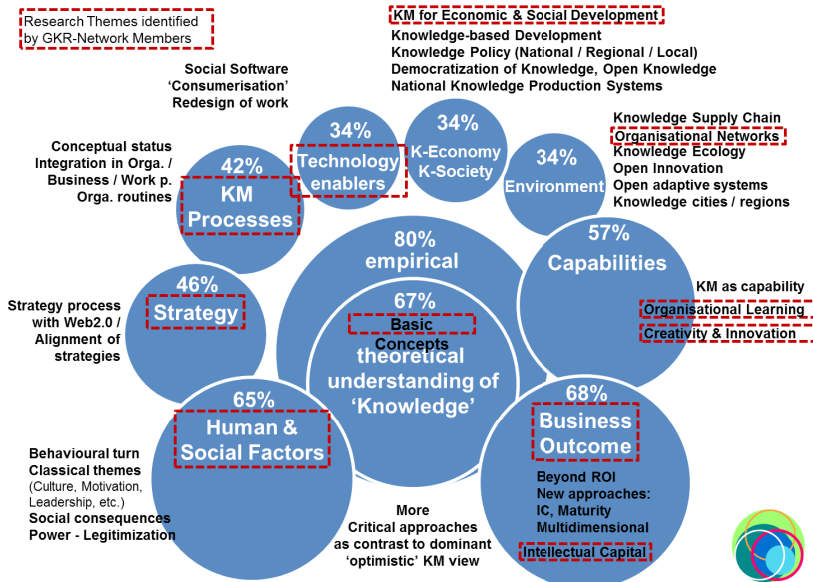
In terms of ‚Human and social‘ dimension (D2), an optimistic view of KM still dominates, and the interviewees did not articulate any novel themes. Experts suggest that KM could profit from systematic review of research results in basic disciplines such as psychology, sociology, organisational behaviour in order to derive research propositions to be tested in further research. Surprisingly, the aspect of power in KM was only mentioned by one single interviewee.



KM experts suggest to emphasise research into KM as an organisational capability (D5), which has been previously mainly addressed from an IT systems and organisational learning perspective. A second major research area identified is the relationship between KM and innovation including the role of creativity.

In regards to 'Strategy' (D6), future research should further clarify the relationship between organisational strategy and KM strategy including instrumental questions about how to achieve the alignment between both strategies. A second major research strand should focus on the process of strategy development and implementation. Here questions on how new technologies (Web2.0) or direct participation could help to broaden the knowledge base by incorporating a broader range of different stakeholders.

### Importance of KM research areas and selected research themes



A core element of KM Frameworks are KM processes (D4) such as ,create, store, share and apply knowledge. According to the experts, KM research needs to clarify and verify the role of KM processes, and provide answers to questions about their relationship to process concepts and approaches. Design research in KM could provide design propositions to practice about how to integrate these processes into organisational processes or working processes. Surprisingly, this result reiterates the emphasis identified by the previous Delphi study a decade ago (Scholl, Heisig, 2003; Scholl et al. 2004).

KM experts regard technological advancements as mainly driven by technology firms, but advocate for future research in technological enablers (D3) which should mainly focus on the human side of the application of the new technological tools, its implementation and the consequences of its use and misuse with its current focus on social media and the up-coming technologies under the label of 'big data'.



This study shows that KM reaches beyond organisational boundaries (D7) and organisations should be conceptualised as open adaptive systems. Future research should use the concept of a knowledge supply chain, which includes also public institutions and external knowledge via open innovation. A third research strand suggested should address KM on a local and regional level for “knowledge cities” or “knowledge clusters”.

Finally, experts regard relevant research about the knowledge-based development (D8) and the role of the formal and informal educational sector to provide the “right” skills for the knowledge society. The role and use of knowledge in the political system by governments should be addressed. Social aspects related to open content such as democratisation of knowledge, cultural openness, political freedom and consequences for privacy are valuable research topics. Finally, does the knowledge economy require new measures of wealth such as a national intellectual capital index?

### **KM Education – E**

The *‘systematic instruction to KM’* is ‘highly important’ (53.1%; 78) and ‘important’ (37.4%; 55) while only one single expert claimed that it is ‘not important’. KM Teaching should be part of teaching on Master (70%; 106) and Undergraduate level (47%; 71) in all disciplines from Management and Engineering but also part of Law and Medicine.

### **Conclusions**

The global study involving over 200 experts from 38 countries demonstrated that knowledge-related challenges and research topics are requiring further research even the need to revisit the understanding of the basic concept of the field such as *‘knowledge’*.

It is suggested that multi-disciplinary research needs to address the *‘value contribution’* of the Knowledge Management practice in organisational life and focus even more on the human and social factors which are related with the way actors create and exploit knowledge in organisations and society.

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