Multicultural Collaborative Team Working as a Driver for Innovation in the Slovak Automotive Sector

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Abstract. The accelerated trend towards globalisation, facilitated by the expansion of the European Union in the Slovak context has led to a rapid influx of foreign direct investment into the country. In particular, numerous automotive manufacturers have relocated to Slovakia in order to capitalise upon a lower cost base and the advanced infrastructure. Despite achieving lowering manufacturing costs, the overarching requirement for automotive manufacturers remains the need to innovate in order to create enhanced product value. One key driver of innovation in the automotive sector is to foster collaboration with members throughout the complex supply chain thus enhancing innovation at every stage. This process however requires close cooperation both vertically and horizontally and therefore clear practices and processes are necessary to ensure facilitation of inter-organisational and multicultural collaboration. The focus of this paper is to study the impact of multicultural collaboration and to propose a framework for enhanced working practices.

Keywords: Multicultural knowledge management · Collaborative working · Innovation · Slovakia · Automotive

1 Introduction

The automotive sector in the Slovak Republic represents one of the most important industrial sectors for inflows of FDI during the past 20 years. This influx is predominately due to the relocation of numerous automotive manufacturers and suppliers seeking to gain competitive advantage. Furthermore, manufacturers are increasingly identifying innovative techniques in order to gain increased competitive advantage.

One area of innovation, illustrated by the rapid influx of foreign investment in Slovakia is the requirement to understand and manage cultural knowledge and to work collaboratively throughout a multicultural supply chain. Several authors in the field of Knowledge Management (KM) emphasis that the innovation paradigm is now moving beyond the search for "Competitive Advantage" to a new world order described as "Collaborative Advantage" [1]. Collaborative advantage emphasises the need for

R. Giaffreda et al. (Eds.): IoT360 2014, Part II, LNICST 151, pp. 9–15, 2015.
DOI: 10.1007/978-3-319-19743-2_2

collaborative working practices which enable organisations to work together in order to combine their key skills and attributes. Collaborative advantage presents a unique opportunity for industrial enterprises in Slovakia however a prerequisite is firstly the need to develop a clear understanding of the impact of culture internally on a national and organisational level and externally on a collaborative team level.

Within this research paper the authors will firstly explore the existing innovation landscape within the Slovak automotive sector and determine the importance of collaborative innovation. The research findings focus on results from a research study conducted amongst 169 Slovak industrial enterprises and a case study analysis of the *West Slovakia Automotive Cluster Innovation Network.* The findings support the proposed application of a new model which provides a framework for the facilitation of collaborative innovation practices within the Slovak automotive industry.

2 Culture as a Knowledge Driver for Facilitating Collaborative Innovation

Several authors have developed models to classify national and organisational cultural knowledge such as those proposed by Hofstede [2, 3] and Trompenaars [4]. A valuable framework in the context of this study is the framework proposed by Nonaka and Takeuchi [5] which conceptualises the process of knowledge transition through the proposed "Spiral of Knowledge Creation" (SECI model) and explains knowledge creation in innovating companies. The model (shown in Fig. 2) is comprised of four modes of knowledge conversion:

1. Tacit knowledge to tacit knowledge transfer (Socialisation)
2. Tacit knowledge to explicit knowledge conversion and transfer (Externalisation)
3. Explicit knowledge to explicit knowledge transfer (Combination)
4. Explicit knowledge to tacit knowledge transfer and conversion (Internalisation)

The model depicts the process as four phases with knowledge transcending through each stage. For tacit knowledge to transfer to explicit knowledge, firstly the process of "socialisation" must take place whereby tacit knowledge it shared between individuals. The second phase is the process of "externalisation", whereby tacit knowledge is translated into forms which can be understood by others. The following two stages are "combination", whereby explicit knowledge is analysed and interpreted to a deeper extent and lastly, "Internalisation" whereby explicit knowledge is explained in clear tacit terms.

Within this research the impact of both national and organisational culture dimensions proposed by Hofstede [2] will be included as part of a holistic framework in order to illustrate the impact of the dimensions upon collaborative team working.

The interaction between national and organisational culture is summarised by Pauleen [6] (Fig. 1) who illustrates that the impact of culture is closely aligning with organisational knowledge. The model illustrates that organisational knowledge emanates from a combination of national culture influences, which subsequently feeds into the organisational culture and then forms part of the knowledge sharing behaviour of

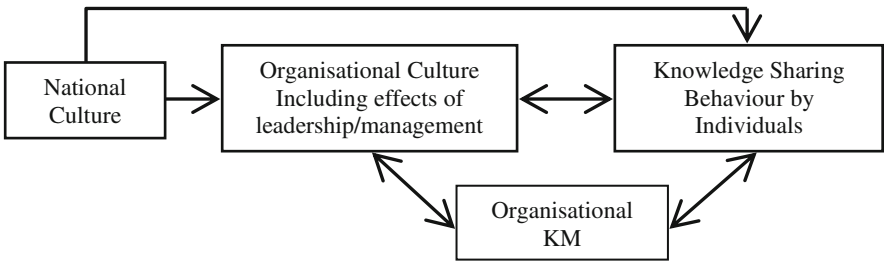

Fig. 1. National culture, organisational culture and knowledge management [6]

individuals. The organisational culture and knowledge sharing behaviour subsequently combine to create organisational knowledge management.

In order to capture the knowledge of a culture within an organisation, it is essential to facilitate the transition of tacit knowledge into explicit knowledge. Therefore both the SECI framework developed by Nonaka and Takeuchi [5] and the framework proposed by Pauleen [6] provide valuable tools to develop a deeper understanding of the capture and the transfer of cultural knowledge.

3 Research Methodology

The research methodology adopted utilises two different approaches, firstly to contextualise the significance of the research and secondly to assess the impact of culture upon the collaborative innovation process within the Slovak automotive industry. The first method used was an online-administered quantitative survey. The objective was to gain a deeper understanding of multicultural working practices in Slovakia. 169 responses were collected from managers across a wide range of industrial enterprises. This was followed by a case study analysis of the *West Slovakia Automotive Cluster Innovation Network,* comprised of 5 depth interviews with individuals in the organisation. The objective of the analysis was to categorise collaborative team working activities within the spiral of knowledge creation [5].

The questionnaire was administered across a wide selection of Slovak industrial enterprises. The largest single group, 37 responses (25.3 %) was from, "Engineering" enterprises and the second largest group, 28 responses (19.2 %) was from the automotive industry. This correlates with the extent to which automotive enterprises are represented within for the Slovak economy.

4 Research Findings

The questionnaire research findings report that from the 169 responses, 65.97 % of the respondents work for an enterprise which has a subsidiary or head office abroad. This illustrates the significant impact of culture within Slovak enterprises and the necessity for managers to cooperate with other cultures in their own organisation. The findings

indicate that Slovak enterprises must adopt multicultural understanding in order to collaborate and cooperate effectively with internal departments abroad and external partners and suppliers. The findings also conclude that there is a low level of multicultural diversity within Slovak industrial enterprises. The results show that 44.6 % of respondents work in a "monoculture" organisation without any foreign individuals. The second largest category is "low multiculturality" (1 %–10 % of foreign workers) which represents the type of organisation in which 43.2 % of respondents work. These findings highlight that whilst Slovak managers are required to collaborate internationally to develop innovative practices, a comparable level of multiculturalism is not evident within their daily practices. As a result, management may often lack the multicultural competencies and understanding to operative effectively within multicultural collaborative teams.

The research findings also show that English is the most commonly spoken official foreign language in Slovak enterprises, with 50 % of respondents working in English speaking enterprises. This is followed by German, which is an official language within organisations of 17.6 % respondents. From the overall sample, respondents indicated that 13 official languages were used within Slovak enterprises. These findings illustrate that whilst the workforce in many cases is not diverse there is predominately a requirement to communicate with foreign customers or colleagues in a head office abroad.

5 Case Study Analysis: *West Slovakia Automotive Cluster Innovation Network*

The second stage of the research was to analyse the *West Slovakia Automotive Cluster Innovation Network* to determine and classify the activities which promote collaborative team working. Following a series of depth interviews with individuals in the organisation, the key activities were classified based upon which aspect of the SECI model (Fig. 2) they most closely relate to.

It is evident from the classification utilising the SECI model that the practices adopted by the *West Slovakia Automotive Cluster Innovation* network assist with facilitating the externalisation of tacit knowledge through the creation of an active dialogue between supply chain members. The second stage is the combination phase, whereby explicit knowledge transfer is facilitated through the creation of the supplier database and clear procedures for knowledge sharing. The third stage of knowledge creation reflects the internalisation process whereby investment is made in training and R&D to ensure that all individuals undergo training to develop the tacit skills for effective team working. The fourth stage is the socialisation phase whereby individuals utilise their newly acquired tacit skills to share knowledge and work effectively together. This can take the form of effective team working with an open dialogue and the ability to work together collectively and share investment relating to infrastructure, marketing and recruitment. To achieve effective team working it is necessary for knowledge to transcend through all four stages [5] ensuring that individuals possess the skills to collaborate effectively.

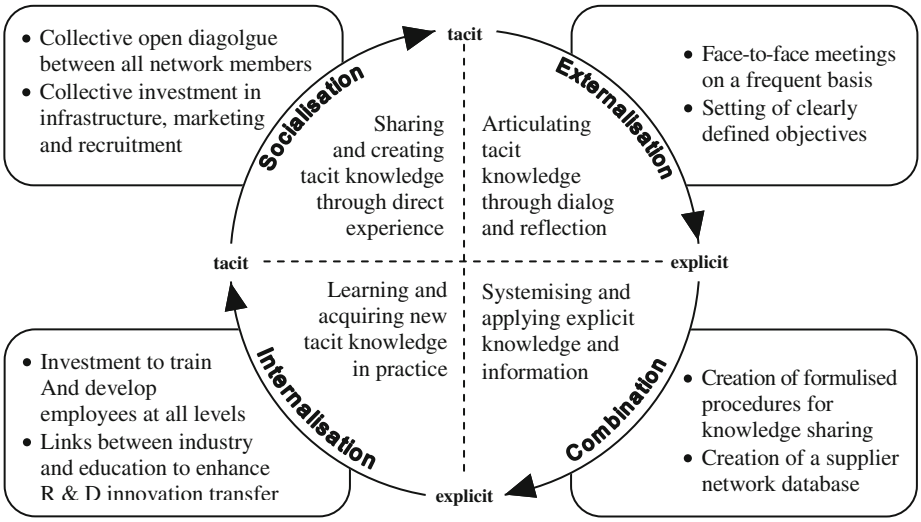

Fig. 2. Application of the SECI model for the *West Slovakia Automotive Cluster Innovation Network.* Author elaboration based on [5]

6 Proposed Framework and Requirements for Future Research

It is evident from the research findings that collaborative working is critical to success of organisations in order to gain competitive advantage. To provide a methodology for facilitating collaborative team working the authors propose a framework (Fig. 3) summarising the team working process based on existing literature.

The first phase of the model is comprised of Hofstede's [2] cultural dimensions. To emphasise national and organisational culture simultaneously, Hofstede's national culture dimensions and organisational culture dimensions are utilised. The second

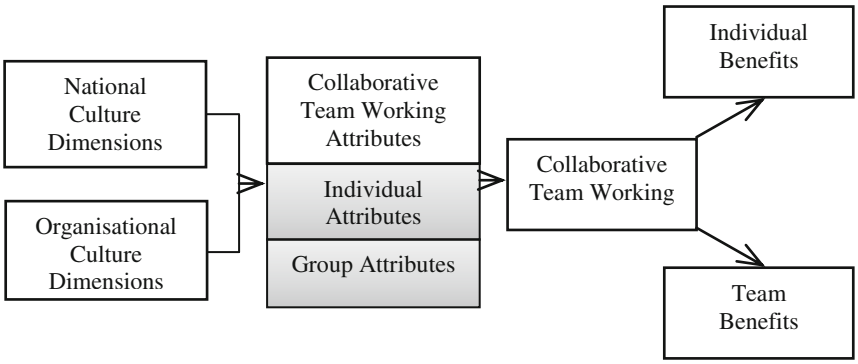

Fig. 3. Directional hypotheses model for collaborative working. author own work based on [2, 7, 8]

phase refers to the proposed attributes for collaborative teams, separated into individual and team attributes. The attributes were determined based upon existing models proposed by Lewis [7] and Skyrme [8]. The final phase of the process identifies that mutual benefits must exist for successful collaborative team working, which are divided into individual and team factors.

7 Conclusions

In the context of the Slovak automotive industry the research findings indicate that Slovak industrial enterprises employ few foreign workers, however it is evident from the findings that many organisations work multiculturally through cooperation with subsidiaries or head offices abroad and cross-national collaboration. As a result it is necessary for Slovak managers and employees to develop an understanding of culture and the impact upon multicultural team working. The need to collaborate both vertically and horizontally throughout the supply chain greatly increases the requirement for intercultural team working as organisations operate globally.

It is evident from the *West Slovakia Automotive Cluster Innovation Network* case study that a clear strategy was necessary to ensure knowledge was shared effectively. Without the implementation of such processes, the ability to collaborate across the multicultural diverse supply chain would present limited opportunities for innovation. It can be concluded that both national culture and organisational culture should be viewed as drivers of collaborative team work because they specifically define the characteristics, values, attributes, skills and competence of each individual team member. The next stage of the research is to conduct a quantitative survey of collaborative team members within the Slovak automotive industry in order to determine which attributes impact upon the collaborative innovation process.

Acknowledgements. This paper was written as part of the VEGA project No. 1/0787/12 "The Identification of Sustainable Performance Key Parameters in Industrial Enterprises within Multicultural Environment", at the Slovak University of Technology in Bratislava, Faculty of Materials Science and Technology in Trnava, Institute of Industrial Engineering and Management.

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