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The Contribution of Organizational Intelligence in Creating Value in Companies: The Case of a European Airline

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Abstract:

Organizational knowledge management distinguishes organizations management within the field of business process management, aiming to sustain knowledge and intelligence towards value creation. The presented research aims to verify if the application of knowledge management within a European airline results in Organizational Intelligence and leads towards value creation, applied via effective and efficient business process management. The approach considers a conceptual reference framework towards Organizational Intelligence creation.

The results of the applied methodology sustain a case study approach focusing on the 2014 project portfolio within the IT department of ABC-airline. The executed survey conducts information with specific reference to the present executed projects, applying further methodologies, presented within the conceptual reference framework.

A case study approach, aligned with a survey implementation, questions the integration of knowledge management, the creation of value and with reference to business processes, defines the maturity levels – such as ad hoc, defined, standardized, measured, controlled and continuous improvement – within the organization. The survey accesses the degree of process maturity, leading towards a strategic recommendation grounded on the results, which indicate the internal implementation level of knowledge management and business process management. The results stress the importance of knowledge management contribution towards the creation of Organizational Intelligence, based on business process maturity.

Keywords: Knowledge management, organizational intelligence, value creation, business process management

1. Introduction

Organizations develop and set up core and supporting activities to ensure the fulfillment of an organizations' objective, in which knowledge and Organizational Intelligence is a core aspect (Albrecht, 2002). Due to the process of globalization, organizations are in need to operate intelligently to ensure an organizations' existence, and to fulfill their responsibility towards their employees, customers and environment. Any type of organization, public or private, manufacturing or service providing; must specify clear structures and procedures, objectives and visions, distributed throughout the entire organization, ensuring the development of the organizations' core activity. This essential business component enables the creation of knowledge and the communication process, as well as sharing and transforming information to enhance the process of decision-making, resulting in faster adaptation towards the changing environment (Wilensky, 1967; Albrecht, 2002).

As the purpose of creating an intelligent organization to enhance and sustain knowledge within an organization and to pursue the creation of value, the goal of the study is to analyze if the application of Organizational Intelligence in business processes of project implementation in a specific aviation organization results in the creation of value towards the company.

2. Conceptual Reference Framework

The conceptual reference framework aligns the implemented theoretical concepts of the study to provide an understanding of the process of value creation through intelligent operations.

The framework focuses on the creation of knowledge and supports the gathering of information within an organization, to emphasize the importance of acting intelligent towards the process of organizational value creation. Within the highly competitive environment of organizations, the theoretical concepts are linked throughout the organizational process. The organizational components are systematically based on the employed workforce and their knowledge, as well as the organizational structure to contribute towards the intelligence of an organization. Consequently, an organizations' structure needs to be highly sophisticated, to ensure the flow of information, the support towards employees, the maintaining and retaining of knowledge development and encourage the process of communication throughout all organizational levels. The combination of these components – Knowledge Management, Organizational Intelligence, Competitive Intelligence and Value Management – is essential for an organization to ensure continuous growth and sustainable development.

The overall synopsis provides (*Figure 1*) guidance towards the implemented case study, in which the presented methodologies process and contribute to the overall objective: value creation.

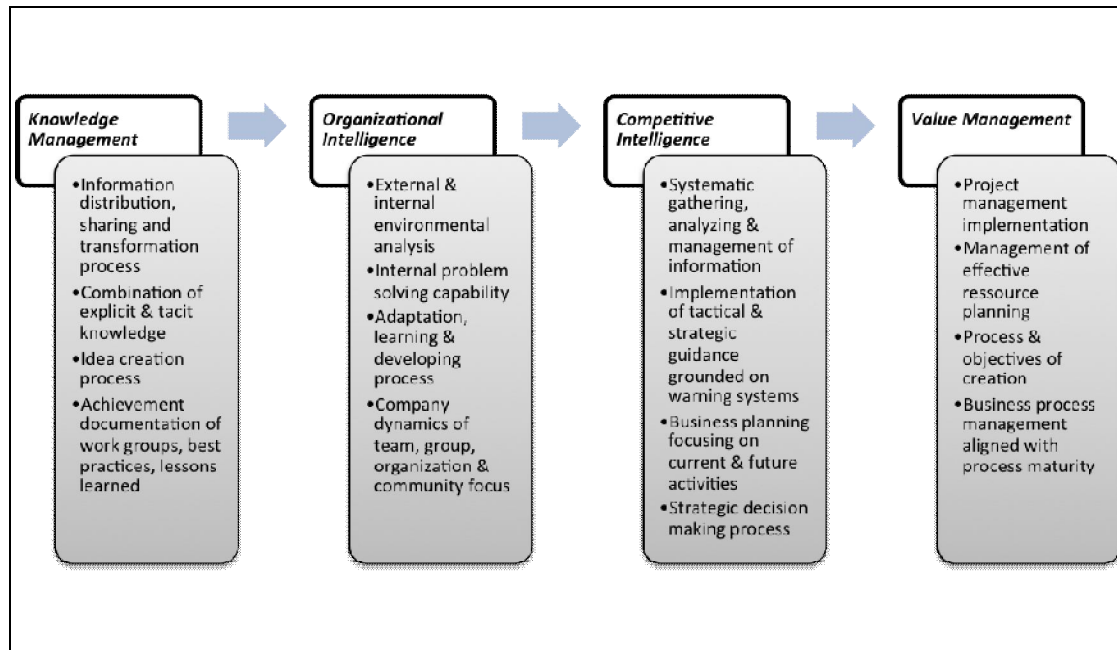


Figure 1: Conceptual Reference Framework

Source: The Author

3. Methodology

Applying a case study approach with an European based and international operating airline (named: ABC-airline), the core objective of the airline is to provide an efficient and effective air transportation service within the aviation market, focusing on various sub objectives, such as customer-, business-, employee- or service objectives. The objectives are aligned with the implemented projects to satisfy the nature of a project objective, which includes customer complaints, internal idea creation or enhancement of previous implemented projects. The organization makes use of the internal intelligence and knowledge of their employees, aligned with continuous information gathering.

3.1. Research Question and Hypothesis

The general objective of the present study is to answer the defined research question:

“How does the organizational intelligence of a company contribute to the creation of value in an organization?”

In addition, the study aims to answer the following hypothesis to explore future opportunities towards specific implementation objectives:

- The way of creating value in the selected company has a high level of uncertainty.
- The discipline of Knowledge Management is not integrated and defined within the selected organization.
- The maturity levels of the processes within the organization explore a low maturity and a low definition.

3.2. Research Method and Process

To comply with the disclosed research question, the study developed propositions regarding the relationship of Organizational Intelligence – based on the principals of Albrecht (2002) and Schwaninger (2001) – and value creation to justify the selected options within the presented processes.

In this paper, the implemented methodology approach consists of usage of a case study approach to justify ongoing projects in an international aviation organization. The type of selected research question emerges to comply with the objective of research across the case study approach (Yin, 2009). With a limitation in scientific generalization (Yin, 2009), the presented observations are performed in an international aviation organization to investigate and illustrate a specific or selected circumstance to achieve a progressed apprehension according to Cousin (2005). Additionally, Gerring (2004), Cousin (2005) and Easton (2010) consent the proposition and underline a low (statistical) representativeness for each case to object that each case study or investigation stands on its own, based on data collection across various data sources to general description.

The multiple case study approach (Yin, 2003) focuses on a survey and considers the implemented project portfolio of the year 2014 within the IT department of the ABC-airline. Within the timeframe of 10th February 2014 until 24th of March 2014 the survey was conducted, based on a pre-test phase to receive external feedback to set up and define the final survey. The data sample includes information, based on respondents to 22 projects out of the entire project portfolio of 45 projects in 2014.

Aiming to receive a deep understanding regarding the structure of implemented projects within the airline, the survey has been divided in four parts. In a first step, the personal characterization is questioned. Secondly, the participants are asked to insert the title of the project and enhance it with a brief project description. The third step questions the project characterization. The fourth and final step requires per theoretical concept five questions. Apart from the project title and description, all further questions are closed questions with the possibility to select only one answer. With a focus on the theoretical concept questions, eight possible answers are given (*Table 1*):

Answer #	Answer type
#1	I don't know.
#2	No, the process does not exist.
#3	Yes, the process exists in LEVEL "0 – Ad HOC" (Performance based on personal experience and common sense)
#4	Yes, the process exists in LEVEL "1 – DEFINED" (Written rules, procedures, company manuals and models exist)
#5	Yes, the process exists in LEVEL "2 – STANDARDIZED" (Tasks in a organization are performed equal to defined procedures)
#6	Yes, the process exists in LEVEL "3 – MEASURED" (Indicators such as performance and compliance measure Level 1 & 2)
#7	Yes, the process exists in LEVEL "4 – CONTROLLED" (Control charts focus on time and level, measures are inside the defined boundaries)
#8	Yes, the process exists in LEVEL "5 – CONTINUOUS IMPROVEMENT" (Evidence is collected identifying improvements or overtime changes)

Table 1: Possible survey respondents' options

Source: The Author

4. Results

The study pursues to answer the research question by the creation of a connection throughout the theoretical concepts, resulting in value creation within the context of an international aviation organization. Consequently, the creation of value, grounded on the components of new businesses, customer retention, cross-selling and up-selling (Pereira, 2013) seems suitable for an aviation organization, seen as holistic approach.

The personal characterization of the respondents portray the organization with highly educated employees (72,7% – Master Degree) and a long commitment to work with the airline (72,7% – employment duration >5 years), an important indicator within the aviation industry and the economic conditions in the past years. Bearing this in mind, the employees leading projects (72,7% – Project Managers) established an extensive experience level (45,5% – project responsibility >5 years), which allows them to guide their subordinates and projects through various conditions, resulting in a high achievement level of the predicted and defined objectives.

The overall project characterization (within the sample data) states an overall budget estimation up to 50.000€ (45,5%) and a requested manpower of 10-15 employees (27,3%), within an assessed project duration of up to six months (72,7%). Additionally, a project source is equally divided into two main sources, being a new idea based on a previously implemented project (27,3%) or the objective of a current management / strategy plan (27,3%). Completing the overall characterization, the projects main objectives are service objectives (31,8%), such as increasing effectiveness and efficiency or on time flight improvement.

The definitions of business process management and in specification process maturity are the essential components to provide an understanding of the current structure and process flows. Considering the individuality of each concept, the sum leads through a theoretical process with the objective to create value in an organization. The following figure stresses the results accomplished with the sample data, based on the above presented personal and project characterization. Bearing the characterization in mind, the figures provide a clear perception of implementation existence or lack of implementation within ABC-airline.

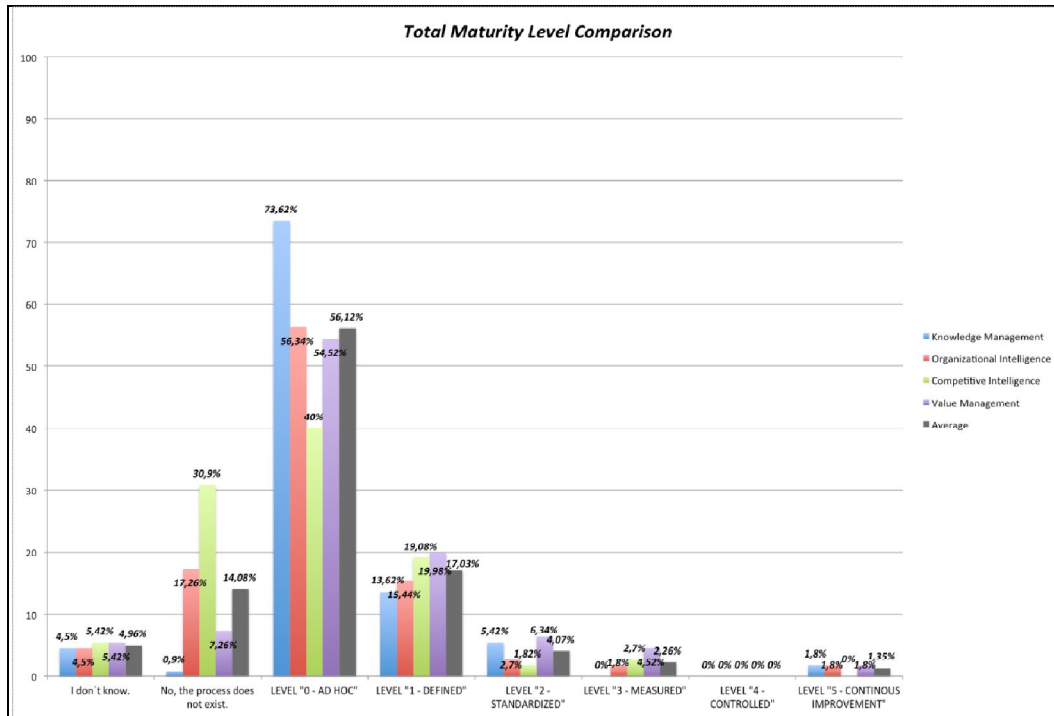


Figure 2: Total Maturity Level Comparison
Source: The Author

The comparison of each methodology aligned with possible maturity levels clearly state that the processes – no matter what type of theoretical concept – are performed in LEVEL 0 – AD HOC.

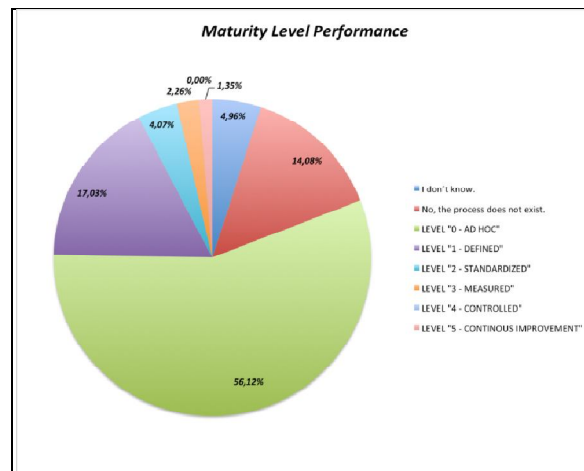


Figure 3: Maturity Level Comparison
Source: The Author

Considering the results and bearing the presented figures in mind, the maturity level performance of the maturity levels emphasizes the following overall results: according to 14,08% no processes throughout the concepts exist, while 17,03% state a process existence in LEVEL 1 – DEFINED, and the overall opinion with 56,12% classifies a process existence in LEVEL 0 – AD HOC, performed through personal experience and common sense. With regards to the additional maturity levels, their appearance is categorized in such a low appearance and minor implementation, which barely affects the overall results.

The results in mind, the overall assumption regarding process maturity in ABC-airline is possible. Therefore, the existing processes are grounded on individual performance and not on defined rules, standardized procedures nor measured and controlled indicators, which in consequence diminish the ability for continuous improvement and value achievement.

5. Research Validation and Recommendations

The study aimed to apply business process management to identify the business process maturity levels of a European airline. The results clearly state, that the maturity levels are in need of implementation, to establish organization-wide procedures and models,

which allow ABC-airline an overall standard of equal performance based on defined procedures. These models and procedures allow performance and compliance measurement, which enhance the airline with control actions, based on their pre-defined boundaries. Constant changes and possible improvement lead to continuous improvement, which enables ABC-airline to redefine processes, react to new circumstances and in conclusion, enhance the overall business maturity by increasing the level of value.

5.1. Hypothesis Verification

The defined hypotheses in chapter 3.1 are aligned towards value creation, knowledge management integration and process maturity definition within ABC-airline. Considering the achieved results, the airline operates with a limited definition regarding internal procedures and communication of information, which lacks a clear approach regarding value creation (Hypothesis 1). Within ABC-airline, knowledge achievement, communication, distribution and transformation lack defined standards and objectives, as well as a clear company wide communication process (Hypothesis 2). Concluding the hypothesis, the survey results indicate throughout all theoretical concepts that the process definition of the organization is defined with a low maturity, in which the employees operate based on experience and common sense (Hypothesis 3).

With the clear results achieved through the survey, the organization of ABC-airline is in essential need for intensive improvement, regarding their internal structure towards a successful future.

5.2. Strategic Recommendation

The lack of information sharing, communication and organizational processes, leads to strategic advises to ensure the implementation and transformation of knowledge within the organizational structures, as a solid base towards a final indispensable recommendation.

A core requirement within the organizational structure of ABC-airline is the implementation of an integrated value chain, which combines an operational process according to a strategic plan aligned with a defined perception of what and how certain objectives should be achieved. The integration of the value chain guides processes as well as projects through certain defined criteria's, completing to a defined value preposition and participating towards the pre-defined value perception of the organization.

With a clear value chain, a common vision is an essential component. Ensuring the essence of a common vision, communication and sharing throughout the entire organization is essential. A common vision is seen as guidance towards the (airlines) employees and provides them with the possibility to enhance their personal connection with the airline and their future objectives.

5.3. Core Research Recommendation

The core research recommendation, which is due to the importance of capturing knowledge within the internal organization, is an inevitable recommendation. As the organizational structure of ABC-airline lacks a clear internal structure to align their knowledge and operational intelligence towards the creation of value, the implementation of a *Knowledge Management Office (KMO)* is recommended. The office is in crucial need to establish standards, processes and functions, which define internal perceptions, create clear structures, measure results and provide improvement for the future. The following aspects provide a precise perception regarding the general need of a KMO, a definition and mission aligned with objectives, team and responsibility explanation, reporting objectives and possible chances.

5.3.1. General Aspect

The results highlight the importance of knowledge management and the need to ensure a clear commitment and alignment of knowledge management with the strategic objectives, which means, the implementation of a KMO represents an internal organic interaction, focusing on internal objectives and settings, establishing communication and involvement of all processes throughout the entire organization (Pereira, 2011).

5.3.2. Definition, Mission and Objectives

The author defines the KMO as an individual department within the overall organizational structure, in charge of the internal management of the organizations' knowledge. Therefore, the KMO aims to follow a mission of promoting knowledge management within an organizational operation, bearing in mind the critical aspects aligned towards sustainability and development (Pereira, 2011). In example, the objectives include: definition of key roles and responsibilities; definition of methods and techniques to support the creation, management and analysis of data, information and knowledge; implementation of methodologies and tools such as best practices, processes, procedures, manuals or work improvement plans; definition of control and measurement tools to detect variances; define continuous improvement plans; define and establish knowledge as an essential resource; and enhance knowledge management with suitable investment for diverse training and technology.

5.3.3. Team and Responsibility

The office is managed by the Chief Knowledge Officer (CKO), ensuring the successful implementation of the mission aligned with the coordination of the knowledge activities (Pereira, 2011). Further, the CKO manages organizational knowledge effectively, creates a culture of learning and change, and manages the KMO team members. Within his team, knowledge managers, knowledge workers or knowledge management consultants support the objectives and work of the KMO. The tasks of the team members are aligned with the specific requirements and objectives of the organization.

5.3.4. Reporting

The objectives of a KMO are supported by a clear reporting focus and enable the organization to manage the operational risk. Further, the collected data of i.e. finance, people or markets provide the possibility to convert information into successful future projects and improve processes to create, share and integrate knowledge management within ABC-airline, resulting in the creation of value. Additionally, the knowledge management strategy is developed, monitored and updated towards the organizational objective.

5.3.5. Chances

A successful KMO implementation results in various future possibilities, which align the strategic objectives with the implemented projects towards the organizational success. Efficiency improvement, creation of new marketing opportunities or the identification of new diverse value-adding information and knowledge systems provides additional chances.

The implementation of a KMO enables ABC-airline to analyze the results from a different perspective, aligned with the overall organizational view and the diminishing of value losses. Effective knowledge management within an intelligent organization provides contribution towards the strength of the organizational systems, the principles and practices of knowledge management as a fundamental aspect of operations is endorsed and ABC-airline is seen as a leading and knowledge sharing organization.

6. Conclusion

The intention to investigate the potential of the methodology of Organizational Intelligence, linked towards value creation within the aviation industry, clearly demonstrates the importance of handling knowledge and intelligence in an organization as an essential business component in order to sustain the creation of value.

With the approach of combining Organizational Intelligence with value creation in the aviation industry, the author stresses that the selected industry and the operating airlines face a precise characteristic specification, which possess a high differentiation from other industries. Bearing the aviation industry in mind, in which airlines mainly provide their service to two types of customers: business and leisure travellers, the importance of leveraging knowledge and operating intelligence is an essential factor to distinguish between the participating competitors. Considering the airlines differentiation characteristics, the offers basically vary in price and service level. With this in mind, an airline – regardless if price or service focused – is in need to align the operational processes intelligently and throughout all organizational structures to ensure an understanding towards the market position and the strategic objectives.

The study demonstrates a precise internal resource definition, in which employees in charge possess a deep knowledge background and enhanced association towards the organizations success. Therefore, ABC-airline is more than ever in need to leverage the internal knowledge in order to distinguish itself from the rapidly increasing competition. However, the study enables the airline with a clear focus area in which the objective is to define processes and procedures, which result in knowledge creation, sharing and intelligent decision-making.

Therefore the implementation of a Knowledge Management Office in an organization lacking business processes, procedures and knowledge sharing objectives, is an essential tool to ensure the above mentioned result objectives. Generally, no strategic changes within the organization, with a clear focus on communication, information sharing, processes and procedures, will result in a possible further loss of market share, a reduction of value creation and in the long run lead to an business exit.

In conclusion, the presented study and the developed recommendation towards a deeper organizational knowledge and intelligence focus, will help ABC-airline to continuously standardize, measure, control and improve the organizational processes and procedures to enhance the process of value creation and managing towards a wealthy company performance.

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