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SHAPING FORCES OF BUSINESS PROCESS MANAGEMENT

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Abstract:-
In the early 1990s the term Business Process Management developed out of different earlier approaches and since then, this management approach faces numerous evolutions. This research deals with the effect and impact of different shaping forces on the processes within organizations and the extent to which their influences will require businesses to rethink their process management This was done via quantitative research where business process professionals world-wide were asked to provide their expertise. The results of this research are that innovation and digitization followed by strategy and leadership and management are the most influential factors for the future development of Business Process Management.

Keywords: *Business Process Management, shaping forces, innovation, digitization.*

1. INTRODUCTION

We are now well into the second decade of the 21st century that has become known as the 4th Industrial Age. At the root of this term is the fast-changing world of both society and business. This new world is being fed by the exponential development and use in areas such as: digital transformation, Artificial Intelligence (AI), robotics and cloud technology providing information at any time anywhere supported by the Internet of Things (IoT).

Processes are highly structured interconnectors of organizational activities that are controlled by traditional management forms; they are a major factor of business success to date.

Experience of the demands of the 4th Industrial Age has led organizations to realize that the traditional approaches to organizational design and management are too slow and laborious for this increasingly fast paced connected world. Currently many organizational variations are being tested around the world to identify new ways of working.

There has been a significant amount of rhetoric in the management press and academic discussions as to whether processes in their current form are, in the main, too rigid and slow for the emerging business demands (Marchand, et al. 2002). However, there is very little empirical work in this important area.

This research will identify who the shaping forces are of Business Process Management; the effect and impact of these shaping forces on the processes within organizations; and the extent to which their influences will require businesses to rethink their process management activities

2. Business Process Management and Shaping Forces

General System Theory with the main contributor who stated that every system has a defined input that is transformed and produces a desired output (Von Bertalanffy, 1969), is the basis for many management approaches and thus also the root for today´s Business Process Management appraoch. The historical overview of Business Process Management starts with Adam Smith (1723-1790) with his division of labour approach, Frederik Taylor (1856-1915) with Scientific Management and Henry Ford (1863-1947) with the creation of production lines for mass production. These ideas are used in today's Business Process Management systems. Taylor (1914) and his colleagues split working units to small entities and thus invented modern industrial engineering. The result was process improvement mainly for production processes. Taylor thought performance will increase when workers are isolated. Alan Turing (1912-1954) described his Turing machine already with a kind of process model. Carl Adam Petri (19262010) introduced Petri nets in 1962 which were implemented by most of the still available Business Process Management modelling notations (Van der Aalst, 2013).

Both Davenport (1993) and Drucker (2001) described the evolution of management with the example of Bell Laboratories in the 1930s, where a second approach to business improvement was implemented. While Taylor introduced product inspection at the end of the production line with no influence on the process itself, Shewart, Deming, Juran and others implemented strict analyses and control of the production process, called quality control.

At that time, computer systems were new to the working people. Usually different organizational units worked with different electronic systems. The Office Automation Group at MIT (Massachusetts Institute of Technology) conducted research activities to develop integrated office application systems with document production, database management, image handling and communications (Perepa, 2011).

Focusing on quality at about the same time new management approaches like Total Quality Management, Six Sigma, ISO (International Organization for Standardization) or Kaizen added value to management executives. First Davenport (1993) and then Hammer & Champy (1993) described Business Process Reengineering to be a more holistic approach in comparison to task-focused organizations. Reengineering processes means to examine inputs and outputs and brainstorm on the tasks lying in between to achieve cost, service and quality improvements (Klun & Trkman, 2016).

With technological innovations and the need of performance measurement, the need to manage business processes gained importance in many organizations. The Association of Business Process Management Professionals provides the following definition of a business process as *"a set of activities that transform one or more inputs into a specific output (product or service) of value to the customer"* (ABPMP, 2013)

Drivers for the implementation of Business Process Management are important issues on globalization (market expansions), changing technology (internet, personal computers, social media, etc.), regulations (Basel I, II), the action of stakeholders or the erosion of business boundaries (Uber, AirBnB, etc.) (Armistead & Machin, 1997).

As a result of a detailed literature review, the author defined six so-called shaping forces that potentially have an influence on future developments of Business Process Management. A quantitative research has been conducted in order to proof the following hypotheses:

H1 = the levels of influence on Business Process Management of influential factors are the same across knowledge-intensive business services in Europe.

H2 = the size of the business does not influence the level of influence on Business Process Management of the influential factors.

H3 = the generation the participant can be counted to is significant for the level of influence on Business Process Management of the influential factors.

H4 = no other influential factor has a higher level of influence on Business Process Management than the given influential factors.

The six shaping forces are Strategy, Organizational Evolution, Generational Workforce, Leadership & Management, Innovation & Digitization and Supply Chain Management & Circular Economy and are briefly explained in the upcoming section.

2.1. Shaping Forces

Authors like Mintzberg (1987), Porter (1996), Chandler (1962) and others researched various dimensions of the concept of strategy: as pattern of decisions, as a set of long-term objectives, action and resource allocation programs, as the definition of the competitive domain of an organization, as response to achieve competitive advantage by analysing external opportunities and threats and internal strengths and weaknesses (SWOT analysis), as channel to abstract managerial tasks on different levels or as a definition of contributions a company wants to make to its stakeholders (Hax & Majluf, 1991). Gluck et al. (1982) vaguely defined Strategic Management as management approach that

"Should refer to some special kind of management process or system, one that links strategic planning and decision making with the day-to-day business of operational management". Basic financial planning includes the budget forecasts for investments and projects for the upcoming year. The forecast-based planning evolves naturally from the first phase and includes multi-year budgets (usually five-year plans) that are planned with different sources of information and data and usually extrapolate current trends. An advancement beyond phase 2 is the externally oriented planning that includes deep analysis of external environmental factors and market trends as well as analysis of customers and competition. The fourth and last phase – Strategic Management – represents an evolutionary improvement in relation to phases 1 to 3. Strategic Management includes input and commitment from top management down to lower-level managers. Planning groups are implemented to focus on the company´s true competitive advantage.

Daft et al. (2010) describe organizations as *"(1) social entities that (2) are goal-directed, (3) are designed as deliberately structured and coordinated activity systems, and (4) are linked to the external environment."*

Organizations are seen as open systems with people to accomplish some specific purpose, allowing interaction with the environment (Robbins & Coulter, 2005). Especially this interaction with the world outside an organization leads to changing parameters that change organizations. Such parameters are e-business, customer involvement, innovation, and technology or employee expectations.

Starbuck (2003) clarifies that organizations themselves have been created for many thousands of years, but generalizations about organizations that would contribute to organization theory are results of only the last half of the 20th century. Developments related to vast changes in industrialization and globalization during the last half of the 19th century and the first half of the 20th century let theorizing grow as many more people were concerned. By the 1920s the term organization became a general term describing "*a formally constituted medium-sized social system*" (Starbuck, 2003).

The term organizational form was employed by Marschak & Radner (1972), describing two functions of organizations: information function to describe rules used to obtain, process and transmit information and activity function to state rules used to act on received information. Hannah & Freeman (1977) extended these two functions with the formal structure of the organization, the patterns of activities and the normative order.

Rummler & Brache (2013) draw a comprehensive picture on organizations, focusing on the organization itself, the underlying processes and the performers executing these processes. The authors see organizations as systems where all system components are strongly dependent on each other. Like Porter´s (1979) five forces, the system that has to be adaptively managed includes environmental influences, shareholders, resources, competition, the market and of course customers.

Examining organizational structures from a working age perspective means finding four generations working side by side. Since research in this area started back in the 1940s, there has never been such a situation. It is most likely that members of the Traditionalists, Baby Boomers, Generation X and Millennials or Generation Y are forming your team (Effrom, Gandossy, & Goldsmith, 2003). By 2020 even five generations, including Generation Z, will work together, Shah (2015) predicts.

When researching on generations in the workforce, management and leadership are relevant topics. The distinction between management and leadership is important at this stage. According to Drucker (2001) the specific function of management is to organize the resources inside the organization for results outside the organization. Management is about planning and budgeting, organizing and staffing and controlling and problem solving, while leadership is about establishing direction, aligning people and motivating and inspiring. Organizations need both, competent management and skilled leadership (Northouse, 2016).

Knowing how to deal with innovation by managing the rules of the game is not necessarily enough. Schumpeter (1942) already described the creative destruction in his original theory and Tidd et al. (2013) summarize what can happen when the game is changing with discontinuous innovation.

Innovation and its focuses are coming in waves of competitive challenges. The first wave started in the late 1970s and early 1980s with innovative products and the starting era of information technology (Kanter, 2006). The second wave introduced process innovation due to privatizations of state-owned organizations and cost and performance pressures on traditional companies in the late 1980s. Financial and information technology innovations also flooded the markets.

The third wave is called digital mania of the 1990s with the focus on new business models, profits and e-commerce rather than the core business. In the fourth wave companies refocused on organic growth, enriching existing business rather than finding new ventures. Developing new products with new functionalities for customers such as the iPod by Apple are central to this wave (Kanter, 2006).

Innovation in combination with information technology is often mixed up with the term disruptive innovation, introduced in 1995. Disruptive innovation is not innovation by disruptive technology, but a process where a smaller company successfully challenges an established business by better serving their customers. Christensen et al. (2015) claim that Uber is not a disruptive innovation but a sustaining one. Uber did not create a market where none existed, the business added another way of providing rides to already existing customers. An example for disruptive innovation is given by the invention of the personal home copier, disrupting the enterprise business of Xerox.

The term Supply Chain Management originates back in 1982 and was introduced by Oliver and Webber as a lifted mission of logistics to become a top management concern (Stadtler & Kilger, 2008).
According to Gabler Business Lexicon the term Supply Chain Management describes the establishment and the administration of integrated supply chains (flows of material and information) along the whole value chain, starting at the raw material production to processing and finally to the end user (Wirtschaftslexikon, 2017).
Stadtler & Kilger (2008) state – in a broader definition – that a supply chain is a network of organizations involved through different processes, linked by material, information and financial flows to provide products or services to the customer. A supply chain typically consists of suppliers, a manufacturing firm, distributors and customers.
With mass manufacturing starting over 150 years ago economy became a linear system: take, make, waste. We take some materials or resources, produce a usable product and then discard it at the end of its use. With this system, taking ecology into account, the world´s population consumes at a level of 1,5 planets (Weetman, 2017).
Being interested in economy, environment and reusable resources directly leads us to the term circular economy. Instead of the linear philosophy of 'take, make, waste' circular economy even goes beyond recycling and extends the value chain including redesign of the product, creating new by-products and co-products and recovering value from waste materials. The most suitable and sustainable explanation is given by Ellen MacArthur Foundation (supported by McKinsey & Company) that describes the concept as "*an industrial economy that is restorative by intention*" aiming to "*enable effective flows of materials, energy, labour and information so that natural and social capital can be rebuilt*" (EMF, 2013). One term often used in different contributions is 'closed material loops', which implies that materials are used more than once, either as bulk material, as products or components. Processes needed for this approach are refurbishment, recycling or up-cycling and remanufacturing (Wikner & Tang, 2008).

2.2. *Developments and Trends within these Shaping Forces*

What all six shaping forces have in common are trends and developments towards scalability, agility and team-based structures. Processes become nimble and are no longer used to only measure performance with key performance indicators.
Cloud-based Business Process Management Systems is just one application of Cloud Computing. Challenges of the 21st century where business processes are not within single organizations, but across a web of companies are the orchestration and choreography of these so-called value webs (instead of value chains) via several cloud services. Service-oriented Architecture allows business process components to be bundled, unbundled and re-bundled throughout a fully integrated mix of on-premise and cloud environments. Such processes are called end-to-end situational business processes (Fingar & Stikeleather, 2012).
A hundred years ago, when changes happen related to industrial and globalization developments, these changes happened gradually and linear. Nowadays, changes are exponential. Examples are the information explosion, the number of mobile devices or internet connections, but also human population. For organizations exponential change means pressure on the management by shorter product life cycles, increasing competition, vast amounts of managed data and also a persistent demand for higher quality and productivity. Fingar & Stikeleather (2012) explain the changes work related to structure, content and process as follows:

- Less process routine – more creativity
- Less direction – more team-based and collaborative ways
- Less knowledge silos – more social skills and information sharing
- Less unskilled workers – more technological competences
- Less fixed working hours - more time pressure
- Less geographical dependence – more mobility (anywhere, anytime availability)

Characteristics of organizations will be agile and lean, focus on value from customer perspective, preparation instead of planning, flat hierarchical structures and continuous reinvention of partner networks to gain competitive advantage.

3. Methodology

Fricker (2008) distinguishes between internet-based and traditional surveys in the context of collecting data, where sampling is the means to select a subset of a larger population to survey. Internet-based surveys are executed at almost zero costs and can collect data in millions. Representative surveys in this context do not mean that the sample matches the population in terms of observable characteristics but rather the results collected from that data would be consistent with the ones we would have collected from the entire population.
Sampling methods for internet-based surveys are either probability-based or non-probability based. Types of probability sample methods are simple random sampling, stratified random sampling, cluster sampling and systematic sampling. Non-probability samples leave participation up to any individual.
The sampling method used in this research is a mixture of list-based sampling and unrestricted self-selected samples. A necessary prerequisite for list-based simple random sampling is a kind of contact information, for example an e-mail address to gain access to the sampling frame (Fricker, 2008). In this special case, the contact information was the registration in specialized and professional groups within a social media network called LinkedIn. The unrestricted selfselected sample was done in the same social network by posting an article with the link to the questionnaire in the social media profile of the author, where 587 persons viewed the post.

The questions of the online survey were designed with simple wording, no use of abbreviations, jargons of foreign phrases, very specific with precise scales and clear wording avoiding vague terms. As the topic is very specific and the target group is limited to Business Process Practitioners, the questions included all necessary information needed and were formulated in a not too precise way (Taylor-Powell, 1998). The first question within the questionnaire was a filter question related to the type of knowledge-intensive services the respondent is working for. The type of question was a multiple choice with only one possible selection (single choice).
The second part of the questionnaire contained closed-ended questions with a clear choice of answers, examples here are the size of the business the respondent is working in or the range of age the participant belongs to.
The third and most informative part of the questionnaire introduced six shaping forces with short and precise sentences and then contained a partially close-ended question, where the respondents could choose up to six given factors and also had the possibility of indicating at least three more own answers. After this question, for each of the provided six influencing factors a closed-ended question with ordered responses and a Likert scale with five options asking for agreement or disagreement closed the questionnaire. With these six scales, thirty different statements were asked to be rated from 'strongly disagree' to 'strongly agree'.
For the analysis of several categorical variables within the questionnaire, like for example age group, size of business or region of industry, descriptive statistics such as frequencies were executed within the tool SPSS v.24. Outputs of descriptive statistics are for example minimum and maximum value, the mean or the standard deviation.
For some analyses, the underlying data file was split to get results for different groups separately. Individual items can be combined to so-called data sets to avoid a huge number of individual results. An important issue before deep analysis of the gathered data can be started is the check for errors within the data sets. In order to obtain descriptive statistics for categorical variables frequencies are used. This statistical method tells the researcher how many participants gave each response (Pallant, 2010).
Special focus of the data analysis was put on the thirty different statements provided to the respondents to ask for agreement or disagreement. In order to be able to identify groups or clusters of these variables, the factor analysis was conducted. This technique has three different uses: understanding the structure of the variables, measuring specific variables with a questionnaire and reducing the data set to a more manageable size (Field, 2005).
For an efficient and focused evaluation of the required target values, the method of exploratory factor analysis was selected. The manifest variables queried in the questionnaire are therefore attributed to a smaller number of latent factors. According to the basic assumption of factor analysis, the expression of a fixed variable can be decomposed additively into a weighted sum of the factors:

$$xim = \sum_{j=1}^{f} \xi ij \lambda mj + \varepsilon mi \qquad (1)$$

where xim is the observed expression of the respondent i for the characteristic m, ξij the expression of the respondent i for the factor j, λ_{mj} represents the factor loading of the observed feature on the latent factor j. f denotes the number of occurrences x_{im} the underlying factors and ε_{mi} an error term (Moosbrugger & Hartig, 2002).
In order to obtain feedback on the response time and the usability of the questionnaire, as well as to improve the comprehensibility of the questions and to remedy possible errors, Business Process Professionals were selected in accordance with the recommendations of Hienerth (2009) and pre-tests were performed. The proposed improvements were discussed directly with the participants involved. After the validation of all suggestions, parts of them were incorporated and certain questions were modified.
Overall, 288 participants voluntarily started the questionnaire. After eliminating incomplete entries, 111 complete and usable data retained (n = 111).
The questionnaire was designed to distinguish participants between working in knowledgeintensive services (KIS) or knowledge-intensive business services (KIBS) according to the NACE classification (Nomenclature statistique des activités économiques dans la Communauté européenne). This distinction results from the following statement of the European Commission in regard to innovation and growth.
"The economic importance of services means that improvements in European living standards are likely to depend more and more on productivity improvements in business services than in manufacturing" (European Commission, 2007). This statements closely relates to *"[...] KIBS are likely to be one of the main engines for future growth within the European Union."* (European Commission, 2007).
If the participant is working in neither of the listed service categories (selection of "none of the above"), the questionnaire ended. 79 of 111 participants indicated to work in knowledgeintensive services, market services, financial or business services.

4. Results

This research mainly focused on six factors that have potential influence on the future development of Business Process Management. Based on 259 answers 9,7% of the respondents see Supply Chain Management & Circular Economy as being influential, 10% state the Generational Workforce as important factor and 15,4% of the answers state that the Organizational Evolution has potential to influence Business Process Management. Strategy with 22% and Innovation &

Digitization with 25,1% are the most influential factors that will have an impact on future developments on Business Process Management, see Figure 1.

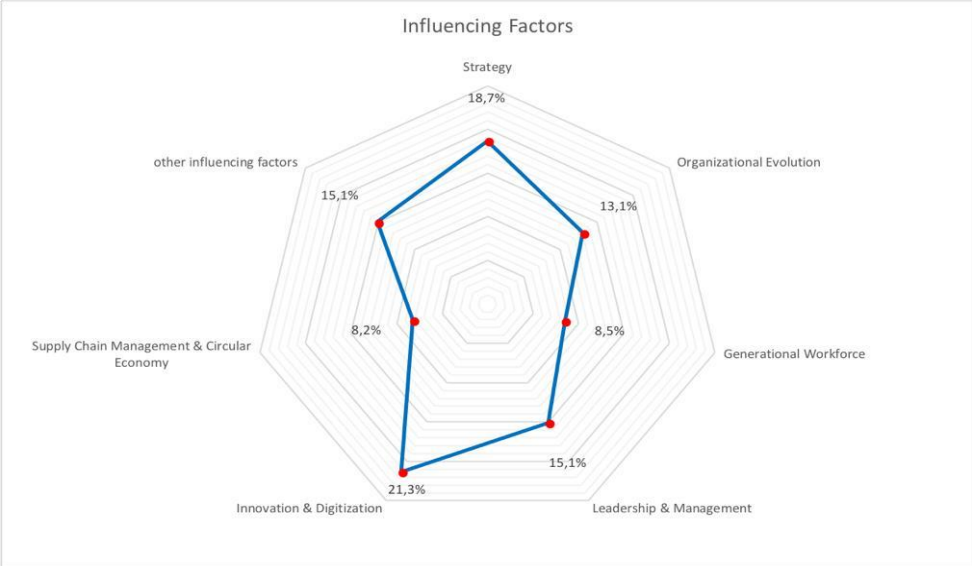

Figure 1 SHAPING FORCES PLUS ADDITIONAL INFLUENCING FACTORS, own elaboration, source: SPSS v.24

From 259 answers, 15,1% of the respondents added other important influential topics related to Business Process Management (in numbers 46 items). Very important to state at this point is that no additional topic was listed redundantly. 14 of the additional influential factors can be counted to the given six shaping forces, for example the term "Technology" would add to Innovation & Digitization.

4.2. Factor Analysis

The factor analysis was conducted in three steps. The first and most important step included the assessment of suitability of the data under research. For this specific data set, the KMO index (Kaiser-Meyer-Olkin) ranges at 0,569 with being suggested as sufficient for this factor analysis and the Bartlett´s test is significant (p = 0,000). With the factor extraction as second step the number of factors used to best represent possible interrelationships between variables was determined. Principal components analysis revealed the presence of ten components with eigenvalues exceeding 1, explaining a total of 67,18% of the variance (ranging from 14,3% to 3,8%), see Figure 2. The third step within the factor analysis is the factor rotation and interpretation. The extracted factors were subsequently rotated with the Varimax method for easier interpretability. The interpretation of the latent variables was made on the basis of those items that show correlations (charges) $|\lambda_{mj}| > 0.3$ with the latent variable j (Bortz, 1999).

Erklärte Gesamtvarianz

Komponente	Anfängliche Eigenwerte			Summen von quadrierten Faktorladungen für Extraktion		
	Gesamt	% der Varianz	Kumulierte %	Gesamt	% der Varianz	Kumulierte %
1	4,305	14,349	14,349	4,305	14,349	14,349
2	2,760	9,201	23,551	2,760	9,201	23,551
3	2,580	8,598	32,149	2,580	8,598	32,149
4	1,931	6,437	38,586	1,931	6,437	38,586
5	1,843	6,142	44,728	1,843	6,142	44,728
6	1,683	5,608	50,336	1,683	5,608	50,336
7	1,389	4,629	54,965	1,389	4,629	54,965
8	1,332	4,438	59,404	1,332	4,438	59,404
9	1,191	3,970	63,373	1,191	3,970	63,373
10	1,142	3,806	67,179	1,142	3,806	67,179
11	,987	3,290	70,469			
12	,928	3,093	73,562			
13	,858	2,860	76,422			
14	,794	2,648	79,069			
15	,717	2,389	81,459			
16	,693	2,310	83,768			
17	,595	1,983	85,751			
18	,573	1,910	87,662			
19	,551	1,838	89,499			
20	,452	1,508	91,007			
21	,398	1,327	92,334			
22	,372	1,241	93,576			
23	,327	1,091	94,667			
24	,307	1,022	95,689			
25	,269	,897	96,587			
26	,256	,853	97,440			
27	,241	,803	98,243			
28	,205	,683	98,925			
29	,169	,563	99,488			
30	,154	,512	100,000			

Extraktionsmethode: Hauptkomponentenanalyse.

Figure 2 TOTAL VARIANCE EXPLAINED, PRINCIPLE COMPONENT ANALYSIS, own elaboration, source: SPSS v.24

In order to determine the number of retaining factors to be examined, the parallel analysis was conducted. Parallel analysis compares the size of already generated eigenvalues with randomly generated data sets of the same sample size (Pallant, 2010). According to the scree plot, see Figure 3, as well as the parallel analysis which showed only six components with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (30 variables and 111 respondents), six components remain relevant for further analysis.

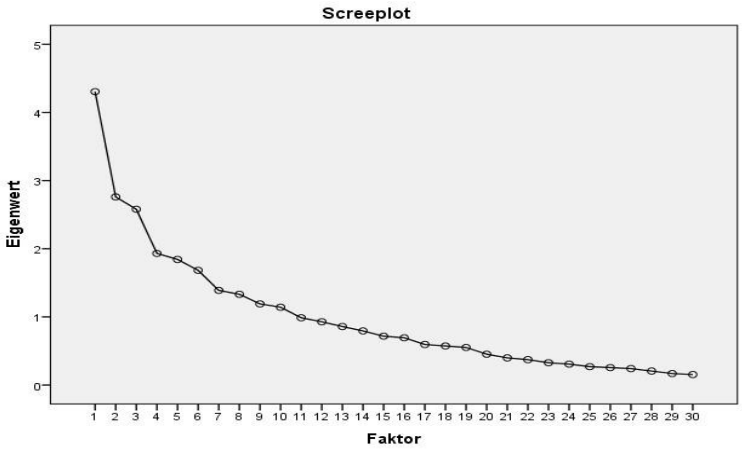

Figure 3 SCREEPLOT FOR FACTOR ANALYSIS, own elaboration, source: SPSS v.24

The six-component solution explained a total of 50,35% of the variance, ranging between 14,3% from component 1 to 5,6% from component 6.
Figure 4 shows parts of the component matrix with Varimax rotated solution. What can be seen in this matrix are positive affect items loading strongly on for example component 1 and 2.

Rotierte Komponentenmatrix[a]

	Komponente					
	1	2	3	4	5	6
Core processes influence strategic goals and vice versa.	,718					
Employees who follow rigid process descriptions become unmotivated and reluctant.	-,626					
Organizations with focus on the value chain and the surrounding system are able to sustain competition.	,609	,379				
A competitive strategy is the perfect fit of business process activities to succeed on the market.	,533					
Managing an agile organization means having an agile mindset and implementing agile methodologies.		,745				
Business processes in agile organizations do exist but are designed differently (eg continuous improvement process).		,650				

Figure 4 ROTATED COMPONENT MATRIX, VARIMAX ROTATED SOLUTION, own elaboration, not complete due to space reasons, source: SPSS v.24

4.2. Verification of Hypotheses

The survey shows that for 17 of respondents indicating to work in a knowledge-intensive business service the most influential factor on Business Process Management is Innovation & Digitization. KIBS highly contribute to the innovation process. This fact is reflected in the survey results. Strategy indicated to be the second important influencing factor (19,4%) followed by Supply Chain Management & Circular Economy with 11,9%.

Hypothesis 1 (H1 = the levels of influence on Business Process Management of influential factors are the same across knowledge-intensive business services in Europe) is therefore refuted as the influencing factor Innovation & Digitization has a higher level of influence on future developments of Business Process Management according to the participants of the survey.

Hypothesis 2 (H2 = the size of the business does not influence the level of influence on Business Process Management of the influential factors) is partly true as the level of influence is nearly the same for the factors:

- Leadership & Management (between 13,7% for large businesses and 16,4% for medium sized businesses)
- Generational Workforce (between 6,9% for large businesses and 9,8% for medium sized businesses)
- Supply Chain Management & Circular Economy (between 7% for small businesses and 9,8% for medium sized businesses)

The levels of influences are diverging in three other influencing factors as well as in the open question for other influencing factors:

- Strategy (between 16,2% for small businesses and 23% for medium sized businesses)
- Organizational Evolution (between 7,8% for large businesses and 16,9% for small businesses)
- Innovation & Digitization (between 18% for medium sized businesses and 23,2% for small businesses)

What can be seen for hypothesis 3 is that information technology, innovation or digitization are not very important factors for Baby Boomers, it only ranges at 13,6%. In comparison to Generation Y, where the influencing factor “Innovation & Digitization” ranges at 23, 3% and other factors are for example Artificial Intelligence, Internet of Things, Industry 4.0 or automation of Business Process Management tasks.

Hypothesis 3 (H3 = the generation the participant can be counted to is significant for the level of influence on Business Process Management of the influential factors) is verified.

After detailed examination, the result has to be recalculated by reducing 44 given answers to 32 new statements that are not directly related to the six given influential factors. In this case, the percentage rate of the factor “other influencing factors” is reduced to 9,5%, instead of initial 15,1%.

Therefore, hypothesis 4 is verified as no other influential factor has a higher level of influence on Business Process Management than the given influencing factors.

5. Conclusions

An overview of the last century related to different aspects of Business Process Management, strategy, organizational forms, generational workforce, leadership and management and Supply Chain Management surfaces tight interdependencies between these listed topics and explores additional issues that are interconnected.

The question on the extent to which these concepts potentially influence the way how business processes are management in the future was central in this research. As main result, six shaping forces are defined: Strategy, Organizational Evolution, Generational Workforce, Leadership & Management, Innovation & Digitization and Supply Chain Management & Circular Economy. Innovation & Digitization are key factors with the highest influential level closely followed by Strategy and Leadership & Management.

Organizations that do not know their business processes, their customers and other stakeholders as well as their environmental developments are not able to sustain in the market as other companies will overtake their position by just doing better.

Findings in the answers of the online questionnaire, provided by business process professionals world-wide stress out the importance of combining concepts like digitization with strategic management, generational workforce structures with communication of process information, agile management approaches with different process definitions or innovation processes with organizational forms.

In-depth research in relation to this research should be conducted towards conduits of communication of process information as literature is very vague in this aspect and also towards scalable Business Process Management approaches that are already in place. Small and medium sized organizations usually do not manage their processes appropriately as the provided frameworks are too much effort as resources are not available.

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