

HUMAN CAPITAL INDICATORS IN SERVICE INDUSTRIES: FROM WORKFORCE PROFILE TO OUTPUT MEASURES

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Abstract

Human capital is an especially important attribute of business activity of all types of enterprises and continuously constitutes a trending subject among theoreticians. Continually arising new theories and methods of human capital measurement do not meet with sufficient interest and confirmation of their significance among practitioners. Market reality makes service organizations notice the need for being interested in the research regarding human capital. This article is an attempt to determine instruments for measuring human capital which is used for providing services by an organization. The research focused on the service sector because of its intellectual and personnel intensive nature. The final sample consisted of 93 Polish firms. This study presents the perception of the importance to disclose human capital measures by senior executives in service firms and shows what they concentrate on – measure of age, competency level, engagement, productivity, customer service or satisfaction.

Keywords: Services, Human capital, Human capital measurement

Introduction

As a result of transforming a centrally-controlled economy into a market one, enterprises gained a freedom of choice concerning the alteration of rules governing their functioning and behavior towards their surroundings. It seems that the group of small and middle-size enterprises was able to make the best use of the new conditions as it is dominated by service organizations. Liberalization of trade during the time when globalization processes take place, produces the necessity of rapid improvement of entities' economic condition and their competitiveness.

Most companies need highly-skilled, experienced and motivated employees to gain competitive advantage, but human capital is even more important in the service sector which is labor-intensive work (Kianto &

Hurmelinna-Laukkane, 2010). There are the differences between service and manufacturing companies because of different types of knowledge (Eckardt, Skaggs & Youndt, 2014). Service enterprises, considering specificity of the business, must concentrate their efforts on personnel that is in contact with a client. Thus the major value, from the point of view of “the profitability” increase, is definitely human capital generated by success factors, which have to be researched by the company due to its own individualized needs. The article focuses upon both theoretical as well as empirical aspects of human capital in service organizations.

Disentangling the role of human capital in service industries

Service may only be provided if performed by a person that is competent, qualified, experienced and manifesting personality. All of those are human capital. Accepting this fundamental concept leads one to the conclusion that human work is a basic productive factor in successful services. What is more, properties characteristic of work performed in services should be pointed out (Rogoziński, 2000):

- There is always direct contact between a client and a service provider (or their representative). A client should at all time know who the performer of the service is, which makes this performer (an employee), contrary to work performed in production, a non-anonymous party.
- Multiple qualifications (that consist of professional training, competence, predispositions and character traits) of the person performing the service determine the content and form of the service provision.
- People employed in services should have thorough knowledge on the subject matter, and a person providing personal services, except for professional knowledge, should also have information regarding psychological aspects of a client’s behavior.
- Services, due to intentionality of the provided work and their dialogue-inclined nature of relation, are especially susceptible to renewability and long lasting repetition – they can easily transform into ministrations .
- Existence of significant dose of customization of an each provision act – each new order introduces elements of diversity and changeability.

A modern concept of determining the essence of services was presented by A. Payne (1993), who defined a service as an every act including an element of non-materiality consisting in affecting a client or objects or a real estate of theirs, and which do not produce the transfer of ownership. However, the transfer of ownership may occur, and the provision of service may or may not be tightly connected with tangible assets. Grönroos (1990) introduced a slightly different and pragmatic approach. He assumed that services are “activity or a collection of activities of more or less non-tangible character, which generally occur, but not necessarily while

contacting a client by a service providing employee, and/or physical resources, and/or systems of a service enterprise, and which provide a solution to a consumer's problems.

Although one may currently notice that the division into "production" and "service" is no longer being updated, there is a classic set of features in the subject literature that, as mentioned before, composes specificity of services and their distinctness in relation to material goods. They include (Styś, 2003):

- intangibility – in a service as a product designed for sale, intangible elements are dominant: we cannot touch a service, feel it or taste it to the same degree as tangible goods;
- heterogeneity – means the difficulty to maintain homogeneous quality standards, and distinctness of transaction levels and levels of provided services;
- inseparability – relates to simultaneousness of service provision by a provider and consumption of a service by a client, that is to inseparability of the providing person with a product, participation of the client as the service co-creating person, and a role which can be played, in this process, by other;
- perishability – services cannot be in fact stored or kept. Therefore, it is not possible to produce their supplies in order to, for instance, sell them during the period of increased demand.

It is righteous to say, from the point of view of service quality, that qualified personnel comes first and it is in accordance with the collection of twenty five determinants of a service enterprise success after (Mangold, 2000). Quality, its maintenance and guarantee have rated in the seventh place. The next items included "creativity while solving problems", "specialization and extending the offer ". The list finishes with "professionalism of cooperation and network of qualification links". Seeing the last category in services, one may assign them as the first ones as far as production enterprises and a production process are concerned.

Service enterprises, due to their business specificity, must concentrate their efforts on personnel that contacts a client, which is mainly a direct relation. Therefore effective communication with clients includes (Karpziel, 2001):

- defining the service, its scope and possibilities, provision times, giving the cost of service;
- explaining mutual relations between the service and its provision and its costs;
- providing proper and easily accessible means for effective communication;

- defining the relations between the offer and real client's needs.

It is worth stressing that the main hint for the operation of service enterprises on the market are consumer's requirements which make those companies provide high-quality services. In a classic model of service quality there are 5 fundamental dimensions with which consumers perceive and evaluate the quality of services. They include: reliability, engagement, competence, empathy and material elements (Parasuraman, Berry & Zeithaml, 1988). Thus clients expect proper behavior of the personnel as if it was material confirmation. Expectations connected with services may regard their technical quality (result quality) as well as functional quality (quality of the service process course and interpersonal contacts) (Grönroos, 2007).

As an answer to the above requirements of potential service receivers, enterprises should: minimize the risk associated with the results of service provision, provide receivers with clear and exhaustive information, advice and continuously develop the educational level of the staff (Skąpska, 2004). Companies that offer high-quality products and services have problems with persuading a client, who, being taught by experience, is apprehensive about opportunistic actions by the selling party concerning the following issues (Saam, 2007):

- real level of competence and skills that enable creating valuable offer, and selling it in accordance with its real value;
- hidden intentions – the reasons for the selling party's behavior are not always genuine;
- hidden knowledge – it regards, for instance, invisible at the first sight features of the offer and, at the same time, features that may have crucial influence upon the use of the product;
- feigning actions – simulating actions, which should have been performed anyway.

Even though making decisions and tackling problems occur at different levels of an enterprise, the ultimate responsibility for individual business decisions is borne by managers (Tiwary, 2008). In this respect, for service enterprises, it is worth pursuing simplification of the company's structure because the fewer the levels from the management to the frontline personnel the more flexible are relations between the staff and clients. However, the management is obliged to stimulate staff, so that a service receiver becomes a co-creator of the value, i.e. a ready-to-use service, and to make the relation between the parties a long-term cooperation.

Receivers of services, before they decide on choosing a service provider, have knowledge on them and on the offered products/services. After gaining online information, discussing the choice with close persons, service users may easily open a dialog and negotiate with a salesperson. Therefore nowadays, service providers are forced to enable means of

communication in order to ensure cohesion as for expectations as well as synergy (Mortimer & Pressey, 2013). Again, one has to stress the fact that consumers representing various cultures focus their attention on different factors while assessing services, and this also makes them perceive the quality dissimilarly. People from East Asia have strong community spirit and they place emphasis on maintaining harmony within the group they identify themselves with. However, people from western countries make decisions on the purchase regardless of the norms and other people's expectations (Lin, Nguyen & Lin, 2013).

Seeing the human capital as the crucial sources of creating business value got one's attention to designing reliable indicators for the human capital. Most researchers try to explain the effects of human resources management (HRM) on an employee and organizational performance (Sanders, Shipton & Gomes, 2014; Sydler, Heafliker & Prukka, 2014). Despite the widespread recognition of the importance of human capital measurement and assessment of their characteristics using financial and non-financial indicators (Bontis & Fitz-enz, 2002; Berkowitz, 2001; Sàenz, 2005), there is a lack of research in measuring human capital in the service industry (Demartini & Paoloni, 2011).

Research methodology

The objective of the study was to determine the used indicators for measuring the human capital output. The research focused on the service sector because of its intellectual and personnel intensive nature. The final sample consisted of 93 local firms in Podlasie Province. Of the responding firms 74 percent had fewer than 50 employees, 18 percent had 50-249 employees, while only 8 percent had more than 249 employees. The survey was conducted from April to July of 2014. Senior executives (i.e., directors, chief executive offers) were approached to respond to a survey. As decision makers of the company they determine what information they would like to receive.

In the survey, human capital was defined according to Kaplan and Norton as the availability of skills, talent, and know-how to perform activities required by a firm's strategy (Kaplan & Norton, 2004).

The research was conducted in the form of a questionnaire. Respondents were asked about the method of measurement, which are applicable in human resource management.

The questionnaire survey highlighted five dimensions of measuring human capital. The dimensions followed the pattern of Lim et al (2010):

- workforce profile (for example: average age of employee, payout level, promotion rate)

- competencies (for example: measuring competency level, training investment, training investment per employee)
- employee attitude (for example: engagement level, satisfaction level, motivation)
- productivity measures (for example: added value per employee, operational cost per employee, revenue per employee)
- output measures (for example: customer served, customer satisfaction, innovativeness).

All items were rated on a five-point Likert scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”).

Results and discussion

The participants were asked about the need for the use of human capital indicators and the actual use of these indicators in their company. The purpose was to determine the significance of the above-mentioned indicators based on the statistical data (mean and standard deviation). Figure 1 reports the results of factor analysis of human capital dimension. While 8.6 percent indicate that they do not see the need to measure human capital, other respondents declare that it is needed. Our study's results reveal differences in perception of the importance of particular dimensions of human capital measurement and actual use of indicators to measure these dimensions.

Figure 1 Importance to disclose dimension of human capital measurement in service firms: comparisons between perception of significance and measurement

Dimension of human capital measurement	Significance		Measurement	
	Mean	SD	Mean	SD
Workforce profile	3,45	1,29	3,18	1,34
Competencies	4,54	0,78	3,96	1,16
Employee attitude	4,73	0,60	3,79	1,16
Productivity measures	3,95	1,06	3,34	1,28
Output measures	4,59	0,65	4,09	1,24

SD – standard deviation

Our approach is different from the previous research because we asked respondents for their perception of the significance, and then for using the specific indicators. We noted that the most firms understand the importance of measuring human capital. Almost all dimensions of human capital measurement were perceived to be important according to the top managers. The highest rated dimensions are employee attitude, output measurement and competencies (mean>4.5; SD<0.8). These indicators provide an indication of an employee’s engagement, loyalty, satisfaction, skills and organization's profitability, and innovativeness. This factors are core competencies for organizational managers and significant aspect of performance and business outcome (Akpabot, Khan, 2015). Staff’s

competencies create a value added and help an organization to remain a service leader. However, the level of actual measurement is slightly lower than their significance. The managers felt that the indicators were important, but they did not measure the human capital. The high rate was achieved only by output measures. The ratios of this dimension are of great importance, because they provide an indication of customer service and customer satisfaction, which has an key impact on business success. Customers are ultimately the source of all the business growth (McDougall, 1997).

In order to identify the structure of human capital indicators and to summarize the data, a principal component analysis was used. After the first analysis, two variables (i.e. promotion rate and innovativeness) were removed. Figure 2 shows the results of the principal component analysis applied to the thirteen remaining variables, after a varimax rotation. Four factors were extracted accounting for 78.7 percent of the variance, while the first factor involves 49.1 percent of the variance. Factor 1 represents attitudes of the staff with connection to attitudes of the customer. The relation between these two groups of factors has been widely studied in the scientific research (Bernhardt, Donthu, & Kennett, 2000; Vilares & Coelho, 2004; Brooks, Wiley & Hause, 2006). This research confirmed the above-mentioned results. Other factors are in accordance with what was proposed by Lim et al. (2010).

The Cronbach's alpha for this measure is 0.90. It means that the results of the factor can be characterized by good validity and reliability.

Figure 2 Factor analysis of the interest in human capital measurement.

Item measures	Factor 1	Factor 2	Factor 3	Factor 4
averageage of employee	0,018525	0,195203	0,079101	0,883161
pay level	0,312325	0,209796	0,182071	0,755474
competency level	0,421516	0,280836	0,717105	0,093439
training investment per employee	0,089252	0,171859	0,887438	0,048116
training investment total	0,238187	0,122543	0,804893	0,196478
satisfaction level	0,786479	0,178601	0,048107	0,303467
motivation ratio	0,836383	0,151165	0,112040	0,253042
engagement level	0,752077	0,256089	0,321301	0,044757
revenue per employee	0,298494	0,799290	0,121263	0,171946
operational cost per employee	0,225402	0,853365	0,225762	0,200261
added value per employee	0,178968	0,891292	0,150063	0,125076
customer served	0,721803	0,362710	0,297290	-0,050748
customer satisfaction	0,780155	0,271729	0,283476	-0,044077
percentage of variance	49,11900	11,09523	9,89280	8,59072
cronbach's alpha	0,9078072			

Conclusion

This research investigated the perceived importance and understanding of the human capital measures from the perspectives of senior executives in service industries. This study shows that the essential indicators are related to output measures such as customer service or customer satisfaction and confirms that the human capital and its characteristics such as motivation, engagement and job satisfaction have a great impact on service companies business.

The major conclusions of the literature-based survey and the performed research are:

- In order to realize service in the relation between a service provider and a service receiver, the personnel of the service company are obliged to be characterized by proper competence, qualifications, experience and personality, i.e. human capital.
- Currently, in the service business, work, understood as labor in the mechanical sense, is not enough as a factor for provision of services. In the market conditions, there is a necessity to maintain certain properties as follows: direct contact between a service provider and its receiver, equipping an employee with knowledge, in accordance with the type of services, which constitutes specificity of a service production process as opposed to material goods production.
- In services, each process of service provision is of customized nature. However, it is possible to emerge indicators for the measurement of the human capital. Those indicators show the value added in relation to the majority of other service categories. Some of them may be distinguished as those of greatest significance for a service provider. Customer satisfaction factor may not only be the reflection of company operation , but also of company's human capital management. It is unusual and precious information saying, that based on a specific measure – client's perception, one may simultaneously obtain information about the efficiency of the human resource management, efficiency of company's functioning as well as the development prospects of the organization.

The research results indicate the direction of creating new, or improving the existing, methods and tools for human capital measurement. They do not have to be unnecessarily extended with the indicators which do not contribute any value. They should draw attention to the most essential parameters for the company. Generally, the actions concerning personnel management, as well as their satisfaction and commitment to work, have their reflection in customer's satisfaction. And this determines true service company value. Further studies in the field should take into consideration the differences between service organizations.

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