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Article

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Research Article

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Employee engagement and performance: a systematic literature review

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Abstract: Scholars and practitioners indicate that low level of employee engagement at work is currently one of the most alarming global economic problems. The potential consequence of this phenomenon is declining work performance. Therefore, it becomes important to understand the concept of work engagement, its meaning for employees, and implications for employers. The article is a systematic review of the body of literature, presenting the results of research on the association between employee engagement and various performance categories. The paper's objective is to summarize prior studies based on their ordering and categorization, identify gaps in the current knowledge, and propose an agenda for future research. The article presents these findings in a synthetic manner, offering practical and academic implications arising therefrom. Results of the review indicate that, in the case of most peer-reviewed publications, a statistically significant relation between employee engagement and numerous categories and subcategories of performance was confirmed.

Keywords: employee engagement, work engagement, process performance, outcome performance

JEL codes: J24, J53

1 Introduction

Employees, regardless of the nature of business, are one of the key resources of a company. At a time when competition for the best specialists is often stronger than efforts to obtain the client, the ability to successfully manage relationships with employees can decide on the long-term market advantage. Through the creation of a friendly, development-enabling environment that leads to employee engagement, employers can increase their chances of hiring and retaining valuable employees.

Numerous reports suggest a low level of employee engagement worldwide. According to the Gallup Institute, globally only 15% of workers can be described as fully engaged in their work, while 85% are not engaged or are actively disengaged [Gallup, 2017]. The causes of the deepening “disengagement crisis” lie in the absence of support to employees in achieving what they perceive for themselves as meaningful results [Forbes, 2014]. The academic community also sees the problem of low employee engagement and its negative impact on business outcomes. According to Teresa Amabile of the Harvard Business School, cited in Forbes [2014], it leads to lower level of company revenues and deterioration of its profitability indicators. The crisis, in the context of innovation, productivity, and performance, has also been noticed by the UK Government. The Department for Business, Innovation and Skills [2009] has confirmed the low level of employee engagement in Great Britain and the negative consequences of this state of affairs on the UK economy. The worldwide nature of the problem suggests the need for research on the impact of employee engagement on the organization, as well as synthesis of the results, in an attempt to draw practical, universal lessons.

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Tranfield et al. [2003] indicate that the process of reviewing the literature is essential for managing knowledge diversity in the context of particular academic studies. This article is a systematic literature review, with the objective of ordering and categorizing prior research on the association between employee engagement and various performance aspects. It identifies gaps in the current state of knowledge, draws conclusions, and highlights the implications based on analysis of selected studies. The review includes papers published between January 2002 and May 2018.

The article structure is as follows. The first section describes the method of selection of publications. Next, the analysis results are presented. The last section contains conclusions of the review, their practical and academic implications, as well as the paper's limitations.

2 Method

A review of literature lays a solid foundation for knowledge development. It exposes areas where studies are yet to be conducted and assists in theory advancement [Webster et al., 2002]. This article is of the systematic review type, with elements of bibliometric analysis. It is aimed to synthesize the current state of knowledge by presenting a structured analysis and the aggregated findings. For academics, this type of review enables the maintenance of scientific rigor. For employers/managers, the reviewing process facilitates accumulation of credible knowledge from various sources [Tranfield et al., 2003]. In carrying out the review, a comprehensive search strategy with an explicit process of selecting articles is being set out. The process of extracting relevant information and evaluating articles is clear and specific. Categorizing studies within conceptually and/or methodologically similar groups leads to systematic ordering and description of the results of the studies in order to assess their quality and applicability. Systematic reviews, apart from summarizing the current state of knowledge within an area, also clarify what remains to be examined [Petticrew and Roberts, 2006].

This article also contains elements of descriptive bibliometric analysis. They were included in order to determine the distribution of reviewed publications over the years and across different geographical regions. The applied approach offers insight on high levels of aggregation and, therefore, does not allow for more detailed conclusions [Van Leeuwen, 2004].

Only few literature reviews related to the concept of employee engagement have been conducted to date. Three of them seem to have had the most significant impact on the direction of further research. Wollard and Shuck [2011] carried out a literature review, which explored conceptually and empirically driven antecedents of employee engagement in two perspectives: individual and organizational, finding 21 antecedents in each dimension. Apart from being an important source of information for researchers, the article is especially useful for practitioners interested in increasing engagement in their organizations.

Kim et al. [2012], in their review, investigated the consequences of employee engagement. They particularly analyzed the literature on the relationship between employee engagement and performance, presenting conclusions and implications for human resource (HR) management and organizational development. The search for relevant literature was limited to ProQuest multiple databases, including Education Resources Information Center (ERIC), ABI/INFORM Complete, ProQuest Education Journals, PsycARTICLES, and PsycINFO. Analysis of 20 articles selected for the final review proved a positive association between employee engagement and company performance, concluding that an engaged workforce can be an important source of competitive advantage [Kim et al., 2012, p. 267].

Bailey et al. [2017] conducted a systematic review, involving 214 studies that examined the meaning, antecedents, and consequences of engagement (42 studies researched the performance outcomes). They distinguished five groups of engagement's determinants: leadership, job design, team and organizational factors, organizational interventions, and psychological states. Engagement was found to be positively associated with four work-related aspects: individual morale, individual task performance, organizational performance, and extra-role performance.

This literature review can be regarded as an extension of Kim et al.'s [2012] as well as Bailey et al.'s [2017] substantial works, in terms of publication date range and databases used in order to extract relevant

articles. Thus, it continues to drive the explorative conversation around the construct of engagement in research.

The review includes only peer-reviewed articles from three databases: EBSCO (Business Searching Interface), Emerald, and ProQuest (ABI/INFORM Collection). The search was confined to English language publications that contained the expression “employee engagement” or “work engagement” in the abstract, the most frequent keywords used to describe the analyzed construct [Bakker and Bal, 2010]. At this stage, the selection yielded >2,000 publications. In the next step, the search was limited to articles with abstracts that contained the word “performance”, the second determinant of the analyzed dependency. This restriction reduced the pool to 550 articles. The selection process is consistent with the approach applied in earlier reviews of the literature on the subject [Kim et al., 2012].

Figure 1 shows the distribution of publications over time. The trend is positive, with a particular increase in the number of articles in the period 2013–2018.

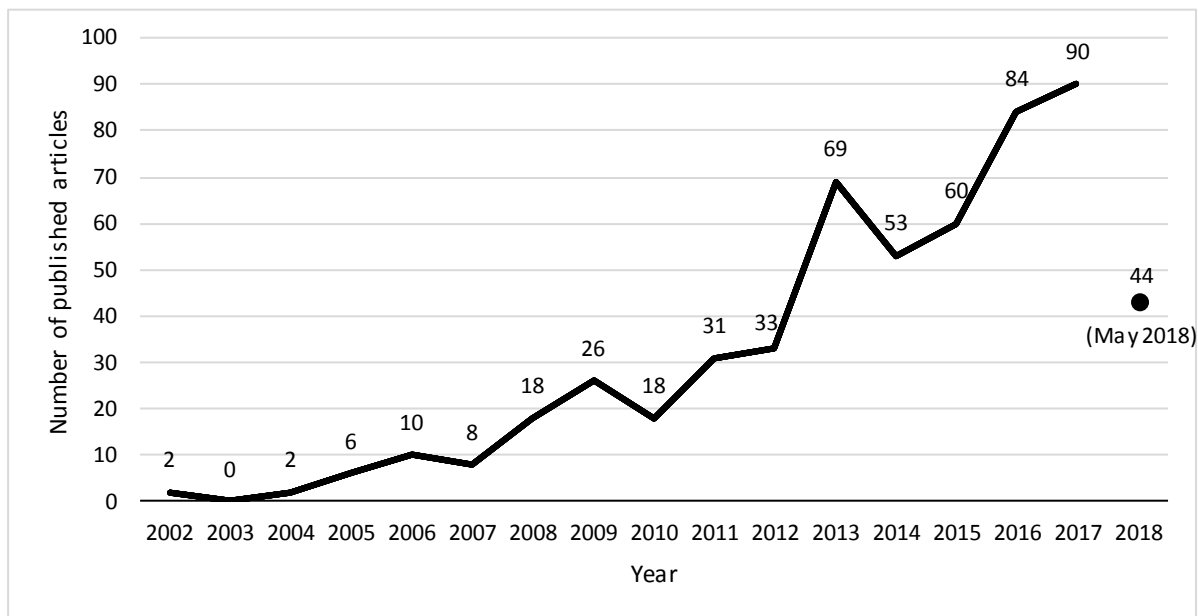


Figure 1. Distribution of publications describing the association between employee engagement and company performance in the period 2002–2018. **Source:** own elaboration.

The final step of article selection was verification of abstracts, performed to ascertain whether they present the measurement and results of the authors’ own empirical research. Finally, the literature review includes 71 publications that have been analyzed in detail.

3 Results of the literature review

The literature review comprised an analysis of articles that met the criterion of conducting research and describing the results thereof on the association between employee engagement and performance aspects. The papers were published in 49 different journals related mainly to the following academic disciplines: occupational psychology, HR management, and performance management. The most studies were published in the *Journal of Occupational and Organizational Psychology* ($n=6$), *International Journal of Contemporary Hospitality Management* ($n=3$), *Journal of Managerial Psychology* ($n=3$), *Journal of Organizational Behavior* ($n=3$), and *Personnel Review* ($n=3$).

The examined studies were conducted in 25 countries, across five continents (Table 1). This observation demonstrates the wide interest of various academic communities in this topic. Most of the research has been conducted in the USA (10 studies) and the Netherlands (10 studies). The sum of publications in Europe alone accounted for 46% of all reviewed papers.

Table 1. Geographical structure of the reviewed studies

| Number | Country where the study was conducted | Number of research reports | Number | Country where the study was conducted | Number of research reports |
|--------|---------------------------------------|----------------------------|--------|---------------------------------------|----------------------------|
| 1 | USA | 10 | 14 | Turkey | 2 |
| 2 | The Netherlands | 10 | 15 | Republic of Korea | 2 |
| 3 | UK | 6 | 16 | Nigeria | 2 |
| 4 | India | 6 | 17 | Czech Republic | 1 |
| 5 | Pakistan | 4 | 18 | Lithuania | 1 |
| 6 | Spain | 3 | 19 | Finland | 1 |
| 7 | Canada | 3 | 20 | Italy | 1 |
| 8 | China | 3 | 21 | Greece | 1 |
| 9 | Malaysia | 3 | 22 | Cyprus | 1 |
| 10 | Germany | 2 | 23 | Indonesia | 1 |
| 11 | Republic of Ireland | 2 | 24 | Jordan | 1 |
| 12 | Portugal | 2 | 25 | Australia | 1 |
| 13 | Israel | 2 | | | |

Source: own elaboration.

Participants of the research studies represented diverse professions, ranging from manufacturing to the services sectors; 44% of the articles described the results of studies carried out on more than one professional group. Among the studies limited to representatives of one branch of the economy, most concerned the following industries: hospitality (11%) [Park et al., 2017; Kim and Koo, 2017; Karatepe and Olugbade, 2016; Suan Choo, 2016; Myrden and Kelloway, 2015; Karatepe, 2011; Xanthopoulou et al., 2009; Salanova and Agut, 2005], banking (8%) [Lathabhavan et al., 2017; Karatepe and Aga, 2016; Akhtar et al., 2016; Van Beek and Taris, 2014; Albdour and Altarawneh, 2014; Yalabik and Popaitoon, 2013], and health care (6%) [Shantz et al., 2016; Gordon and Demerouti, 2015; Tims and Bakker, 2013; Freeney and Fellenz, 2013].

4 Categorization of reviewed studies

Petticrew and Roberts [2006, p. 170] indicates that “systematic ordering and description of the results of the studies lies at the core of most systematic reviews”. Therefore, the main research objective of the review was to categorize the analyzed studies and draw conclusions based on their ordering. Categories were created in order to map out studies with regard to the examined performance aspects associated with employee engagement. Campbell et al. [1993] indicate a wide variety of phenomena under the “performance” label in contemporary research and enumerate the measures of performance, ranging from objective ones, like number of pieces produced or total value of sales, to subjective self-ratings of overall performance. Performance can be defined as work activity and its dynamics but also as a measurable work outcome [Roe, 1999]. Furthermore, it can be considered on individual, group, or organizational level, which is reflected in specific goals that correspond with each level [Roe, 1999]. Based on this description, six main categories, considering the type and level of performance, have been created: process performance on the individual

level, process performance on the team level, process performance on the organizational level, outcome performance on the individual level, outcome performance on the team level, and outcome performance on the organizational level. Each study has been assigned to appropriate category/categories (eight studies have been assigned to two categories, while one study has met the selection criteria of three categories). Table 2 illustrates the result of the ordering and categorization of the analyzed papers.

Table 2. Categorization of reviewed articles based on the type and level of analyzed performance

| | Individual level | Team level | Organizational level |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Process performance | 61 studies: Akhtar et al., 2016; Albdour and Altarawneh, 2014; Alessandri et al., 2018; Alfes and Truss, 2013; Ali et al., 2018; Anitha, 2014; Bakker and Bal, 2010; Bakker et al., 2012; Bal and De Lange, 2015; Barnesand Auh, 2013; Salanova and Agut, and Collier, 2013; Castanheira, 2016; Cesário and Chambel, 2017; Chong and Lee, 2017; Chughtai and Buckley, 2011; Dalal and Baysinger, 2012; Dash and Muthyala, 2016; Eldor and Harpaz, 2016; Eldor, 2017; Farndale et al., 2014; Findikli, 2015; Fletcher, 2016; Freeney and Fellenz, 2013; Gordon and Demerouti, 2015; Gorgievski and Moriano, 2014; Gutermann et al., 2017; Halbesleben and Wheeler, 2008; Kapil and Rastogi, 2017; Karatepe, 2011; Karatepe and Aga, 2016; Karatepe and Olugbade, 2016; Kašpárková et al., 2018; Kataria et al., 2013; Khan and Malik, 2017; Kim and Koo, 2017; Kovjanic and Schuh, 2013; Lathabhavan et al., 2017; Lin et al., 2016; Lorente and Salanova, 2014; Maden, 2015; Medlin and Green, 2009; Medlin et al., 2016; Myrden and Kelloway, 2015; Nazir and Islam, 2017; Nazli and Sheikh Khairudin, 2018; Park et al., 2017; Rahman et al., 2017; Reijseger et al., 2017; Saks, 2006; Schmitt et al., 2016; Shantz and Alfes, 2013; Shantz et al., 2016; Shuck and Zigarmi, 2015; Suan Choo, 2016; Suhartanto and Brien, 2018; Tims and Bakker, 2013; Tims et al., 2015; Van Beek and Taris, 2014; Wang et al., 2015; Xanthopoulou and Bakker, 2008; Yalabik and Popaitoon, 2013; Zhong et al., 2016 | 8 studies: Findikli, 2015; Freeney and Fellenz, 2013; Kataria et al., 2013; Mäkikangas et al., 2016; Menguc 2005; Steffens and Haslam, 2014; Tims and Bakker, 2013 | 1 study: Farndale et al., 2014 |
| Outcome performance | 4 studies: Gorgievski and Moriano, 2014; Lazauskaite-Zabielske et al., 2018; Lin et al., 2016; Shantz et al., 2016 | 4 studies: Coco and Jamison, 2011; Badal and Harter, 2014; Suhartanto and Brien, 2018; Xanthopoulou et al., 2009 | 3 studies: Benn et al., 2015; Dijkhuizen et al., 2016; Gorgievski and Moriano, 2014 |

Source: own elaboration.

Categorization revealed an uneven distribution of the analyzed studies across six defined categories. The majority of the research reports (61 out of 71 papers) were assigned to process performance on the individual-level category, nine papers examined the association between employee engagement and process performance on more aggregated (team and organizational) levels, and 10 studies linked employee engagement with outcome performance categories on various levels, with one [Gorgievski and Moriano, 2014] examining both individual and organizational levels. High concentration of studies in a single category is the main characteristic of prior literature, which analyzed the association between employee engagement and performance. It shows that there is still a vast research area requiring further exploration.

Future studies can contribute to the body of knowledge by focusing more on links between employee engagement and outcome performance aspects, as well as association between employee engagement and performance on aggregated levels.

The main process and outcome performance categories can be further subcategorized based on well-established definitions. Borman and Motowidlo [1997] divide process performance into contextual and task performance, whereas Lebas and Euske [2002] divide outcome performance into financial and nonfinancial performance. Ordering of the research studies based on a more detailed categorization is presented in Table 3 (the total number of studies in the subcategories is higher than the total number of papers in categories due to the fact that many studies examined more than one subcategory of performance).

Table 3. Subcategorization of reviewed articles based on type and level of analyzed performance

| | Individual level | Team level | Organizational level |
|----------------------------|-------------------|------------------|----------------------|
| Process performance | 61 studies | 8 studies | 1 study |
| Task performance | 40 studies | 7 studies | 1 study |
| Contextual performance | 45 studies | 2 studies | 1 study |
| Outcome performance | 4 studies | 4 studies | 3 studies |
| Financial performance | 2 studies | 4 studies | 2 studies |
| Nonfinancial performance | 2 studies | 2 studies | 3 studies |

Source: own elaboration.

Subcategorization of the main performance categories showed relatively even distribution of studies across subcategories. Process performance on individual-level category was well represented in both task and contextual performance subcategories, with at least 40 studies in each of them. Apart from the deficiency of studies related to process performance on the organizational level, future research should pay more attention to examining the links between engagement and contextual performance on the team level. It would be particularly valuable, as contextual performance is, by definition, a discretionary behavior directed toward an employee's proximal environment, including cooperation within a team or unit [Borman and Motowidlo, 1997]. Studies researching the association between employee engagement and outcome performance, despite their general scarcity, are evenly distributed across the subcategories. The agenda of future research ought to include more studies on both financial and nonfinancial dimensions of outcome performance and their relation with work engagement, especially since those aspects of performance may be particularly meaningful and persuasive for employers.

5 Terms and definitions

Analysis of individual studies required verification of authors' approach to defining the "employee engagement" concept. The reason is that construct clarity enables to avoid the hampering of the knowledge accumulation process in a particular research field [Farndale et al., 2014]. The objective of this phase was to avoid a situation where significant differences in definitions would undermine the credibility of the review.

In the literature, there are several terms that describe work-related engagement (Table 4). These include in particular, "employee engagement", "work engagement", "organization engagement", and "job engagement." The first two, according to Schaufeli and Bakker [2010, p. 10], "are typically used interchangeably" and considered so for the purpose of the review. The majority of authors (76% of the publications) adopted the definition proposed by Schaufeli et al. [2002, p. 74], which describes employee/work engagement as "a positive, fulfilling, work-related state of mind that is characterized by vigor (e.g., being highly energetic), dedication (e.g., being highly involved in work), and absorption (e.g., being highly concentrated in work)".

Table 4. Terms and definitions of employee engagement adopted by various authors

| Term and definition | Author(s) of the definition | Research using the particular definition |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Employee engagement is “a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective–cognitive state that is not focused on any particular object, event, individual, or behaviour”. | Schaufeli et al. [2002] | 54 studies: Akhtar et al., 2016; Alessandri et al., 2018; Ali et al., 2018; Bakker and Bal, 2010; Bakker et al., 2012; Bal and De Lange, 2015; Barnes and Collier, 2013; Castanheira, 2016; Cesário and Chambel, 2017; Chong and Lee, 2017; Chughtai and Buckley, 2011; Dijkhuizen et al., 2016; Eldor and Harpaz, 2016; Eldor, 2017; Farndale et al., 2014; Findikli, 2015; Fletcher, 2016; Freeney and Fellenz, 2013; Gordon and Demerouti, 2015; Gorgievski and Moriano, 2014; Gutermann et al., 2017; Halbesleben and Wheeler, 2008; Kapil and Rastogi, 2017; Karatepe, 2011; Karatepe and Aga, 2016; Karatepe and Olugbade, 2016; Kašpárková et al., 2018; Kataria et al., 2013; Khan and Malik, 2017; Kovjanic and Schuh, 2013; Lathabhavan et al., 2017; Lazauskaite-Zabielske et al., 2018; Lin et al., 2016; Lorente and Salanova, 2014; Maden, 2015; Mäkikangas et al., 2016; Menguc and Auh, 2013; Nazir et al., 2017; Nazli and Sheikh Khairudin, 2018; Park et al., 2017; Reijseger et al., 2017; Salanova and Agut, 2005; Schmitt et al., 2016; Shantz and Alfes, 2013; Shantz et al., 2016; Steffens and Haslam, 2014; Suan Choo, 2016; Tims and Bakker, 2013; Tims et al., 2015; Van Beek and Taris, 2014; Wang et al., 2015; Xanthopoulou and Bakker, 2008; Xanthopoulou et al., 2009; Yalabik and Popaitoon, 2013 |
| Personal engagement is “the harnessing of organization members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances” | Kahn [1990] | 5 studies: Alfes and Truss, 2013; Badal and Harter, 2014; Kim and Koo, 2017; Rahman et al., 2017; Zhong et al., 2016 |
| Job engagement is “the extent to which an individual is psychologically present in a work role”. | Saks [2006] | 2 studies: Albdour and Altarawneh, 2014; Saks, 2006 |
| Organizational engagement is “the extent to which an individual is psychologically present in his role as a member of an organization”. | | |
| Work engagement is “a relatively enduring state of mind referring to the simultaneous investment of personal energies in the experience or performance of work”. | Christian et al. [2011] | 1 study: Benn et al., 2015 |
| Employee engagement “represents an employee’s enthusiasm, passion and commitment to their work and to the organization, the willingness to invest themselves and expand their discretionary effort to help the employer succeed”. | Myrden and Kelloway [2015] | 1 study: Myrden and Kelloway, 2015 |
| Employee engagement is “a cognitive, emotional, and behavioural state directed toward desired organizational outcomes”. | Shuck and Wollard [2010] | 1 study: Shuck and Zigarmi, 2015 |
| Employee engagement is “the relative strength of an employee’s involvement in and enthusiasm about his or work”. | Tritch [2003] | 1 study: Medlin et al., 2016 |

Source: own elaboration.

However, some authors emphasize the need for separate definitions and analyses of the two types of engagement, as the state associated with a particular workstation and the state associated with affiliation to the organization. Saks [2006, p. 604] calls the first of these concepts “job engagement”, defined as “the extent to which an individual is psychologically present in his work role”. Analogously, “organization engagement” is “the extent to which an individual is psychologically present in a role as a member of an organization”. From the employer’s point of view, it is important to quantify engagement level in both dimensions. According to Farndale et al. [2014], this allows to relate measurement results to the role-specific outcomes of engagement, which may differ at the organizational and job levels.

Despite the varying levels of details in the definitions, all of them are based on Kahn’s concept of personal engagement. Therefore, it can be assumed that the reviewed publications belong to the same conceptual approach and comparison of their results is justified. In the case of six papers [Anitha, 2014; Coco and Jamison, 2011; Dalal and Baysinger, 2012; Dash and Muthyala, 2016; Medlin and Green, 2009; Suhartanto and Brien, 2018], the authors mentioned several definitions without adopting one specific concept of employee engagement.

6 Scales measuring employee engagement

Consistency of definitions is also reflected in a limited number of tools used by the researchers to quantify the level of employee engagement: 82% of the analyzed publications have benefited from different versions of the Utrecht Work Engagement Scale (UWES) developed by Schaufeli and Bakker of Utrecht University [Schaufeli et al., 2002]. In its original form, the scale consisted of 25 statements associated, in accordance with the definition described earlier, with the three work-related engagement dimensions: vigor, dedication, and absorption. Study participants assign a point value to each statement using a seven-point scale, where zero means “never” and six means “always”. The most commonly applied version of the scale in the analyzed studies was UWES-9, in which three statements were assigned to each dimension. This variant was used in 48 out of 71 publications.

Among the other tools used by the researchers, the most popular were Saks Engagement Scale [Saks, 2006] and the Gallup Workplace Audit [Harter et al. 2002], both consisting of 12 items rated on a five-point Likert scale. In some cases, the authors applied a combination of several tools (Table 5).

Table 5. Scales used to quantify the level of employee engagement

| Scale | Research using the particular scale |
|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UWES-9 [Schaufeli et al., 2002] 9 items rated on 7-point scale: 3 vigor items, 3 dedication items, and 3 absorption items | 47 studies: Akhtar et al., 2016; Alessandri et al., 2018; Ali et al., 2018; Bakker and Bal, 2010; Bakker et al., 2012; Bal and De Lange, 2015; Castanheira, 2016; Cesário and Chambel, 2017; Chughtai and Buckley, 2011; Dijkhuizen et al., 2016; Eldor and Harpaz, 2016; Eldor, 2017; Findikli, 2015; Fletcher, 2016; Freney and Fellenz, 2013; Gordon and Demerouti, 2015; Gorgievski and Moriano, 2014; Gutermann et al., 2017; Kapil and Rastogi, 2017; Karatepe, 2011; Karatepe and Aga, 2016; Karatepe and Olugbade, 2016; Kašpárková et al., 2018; Kataria et al., 2013; Kovjanic and Schuh, 2013; Lathabhavan et al., 2017; Lorente and Salanova, 2014; Maden, 2015; Mäkikangas et al., 2016; Myrden and Kelloway, 2015; Nazir and Islam, 2017; Park et al., 2017; Rahman et al., 2017; Reijseger et al., 2017; Schmitt et al., 2016; Shantz and Alfes, 2013; Shantz et al., 2016; Shuck and Zigarmi, 2015 ¹ ; Steffens and Haslam, 2014; Suan Choo, 2016; Tims and Bakker, 2013; Tims et al., 2015; Van Beek and Taris, 2014; Wang et al., 2015; Xanthopoulou and Bakker, 2008 ² ; Xanthopoulou et al., 2009; Yalabik and Popaitoon, 2013 |
| UWES-17 [Schaufeli et al., 2002] 17 items rated on 7-point scale: 6 vigor items, 5 dedication items, and 6 absorption items | 10 studies: Barnes and Collier, 2013; Farndale et al., 2014 ³ ; Halbesleben and Wheeler, 2008; Khan and Malik, 2017; Lazauskaite-Zabielske et al., 2018; Lin et al., 2016; Menguc and Auh, 2013; Nazli and Sheikh Khairudin, 2018; Salanova and Agut, 2005; Xanthopoulou and Bakker, 2008 ² |

| Scale | Research using the particular scale |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Saks Engagement Scale [Saks, 2006] 12 items rated on 5-point scale: 6 job engagement items, and 6 organization engagement items | 5 studies: Albdour and Altarawneh, 2014; Farndale et al., 2014 ³ ; Kim and Koo, 2017; Saks, 2006; Suhartanto and Brien, 2018 |
| Gallup Workplace Audit (Q12) [Harter et al. 2002] 12 items rated on 5-point scale: 12 employee perceptions of work characteristics items | 5 studies: Badal and Harter, 2014; Chong and Lee, 2017; Dash and Muthyala, 2016; Medlin and Green, 2009; Medlin et al., 2016 |
| Job Engagement Scale [Rich et al., 2010] 18 items rated on 5-point scale: 6 physical engagement items, 6 emotional engagement items, and 6 cognitive engagement items | 2 studies: Shuck and Zigarmi, 2015 ¹ ; Zhong et al., 2016 |
| ISA Engagement Scale [Soane et al. 2012] 9 items rated on 7-point scale: 3 intellectual engagement items, 3 social engagement items, and 3 affective engagement items | 1 study: Alfes and Truss, 2013 |
| JRA Employee Engagement Scale [JRA, 2007] 6 items rated on 5-point scale: 2 cognitive engagement items, 2 emotional engagement items, and 2 behavioral engagement items | 1 study: Benn et al., 2015 |
| Passion Scale [Vallerand et al., 2003] 14 items rated on 7-point scale: 7 harmonious passion items, and 7 obsessive passion items | 1 study: Shuck and Zigarmi, 2015 ¹ |

Source: own elaboration.

¹ Shuck and Zigarmi [2015] used a multimeasure approach and applied three scales in order to measure employee engagement: UWES-9, Job Engagement Scale, and Passion Scale.

² General work engagement was assessed with the UWES-9 questionnaire, whereas state work engagement was measured with UWES-17.

³ UWES-17 was applied in order to measure work (individual) engagement, whereas Saks Engagement Scale plus two additional self-designed items were used to measure organizational engagement.

Anitha [2014] applied a self-designed survey questionnaire, whereas Coco and Jamison [2011] did not indicate the survey that was used in their study. Dalal and Baysinger [2012] created a composite scale that included items from other tools such as UWES, Job Engagement Scale, and Work Engagement Scale.

Despite the fact that the UWES was used in the majority of the reviewed papers, there are doubts about the reliability of the questionnaire. Kulikowski [2017], in his literature review, analyzed studies on the UWES factorial validity. As the results were found to be ambiguous, he indicates the importance of routinely testing the UWES factorial validity during research on employee engagement. Furthermore, concerns are raised about the discriminant validity of UWES with regard to job satisfaction [Viljevac et al., 2012]. Acknowledging the contribution that UWES has made to the current understanding of performance aspects in the workplace, there is a necessity for further search for better, more internally consistent work engagement measures [Kulikowski, 2017].

7 Data sources: employee performance

In 43 out of the 71 analyzed studies, authors relied solely on self-reported questionnaires in order to collect source data on the work engagement outcomes. Consequently, the data used to quantify the dependent variable and the explanatory variable were provided by the same person, which could, to some extent, lead to overestimation of the correlation between those variables. Subjectivity of that method stems from the

tendency of respondents to maintain consistency between the declared attitudes and actions [Podsakoff et al., 2003]. On the other hand, researchers have used proven, widely accepted questionnaires that allow a reliable evaluation of examined variables. In the remaining 28 studies, authors used more objective data, such as financial results of business units, surveys conducted among customers, assessments of direct supervisors, or a set of several aforementioned data sources (Table 6).

Table 6. Data sources used to quantify performance

| Data source | Research studies using the particular data source |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Self-reported questionnaire | 47 studies: Akhtar et al., 2016; Albdour and Altarawneh, 2014; Alfes and Truss, 2013; Ali et al., 2018; Anitha, 2014; Bal and De Lange, 2015; Barnes and Collier, 2013; Benn et al., 2015; Chong and Lee, 2017; Chughtai and Buckley, 2011; Dalal and Baysinger, 2012; Dash and Muthyala, 2016; Farndale et al., 2014; Findikli, 2015; Fletcher, 2016; Freeney and Fellenz, 2013; Gordon and Demerouti, 2015; Gorgievski and Moriano, 2014; Kapil and Rastogi, 2017; Karatepe and Olugbade, 2016; Kašpárková et al., 2018; Kataria et al., 2013; Khan and Malik, 2017; Kim and Koo, 2017; Lathabhavan et al., 2017; Lorente and Salanova, 2014; Maden, 2015; Mäkikangas et al., 2016; Medlin and Green, 2009; Medlin et al., 2016; Nazir and Islam, 2017; Nazli and Sheikh Khairudin, 2018; Park et al., 2017; Rahman et al., 2017; Reijseger et al., 2017; Saks, 2006; Shantz and Alfes, 2013; Shantz et al., 2016; Shuck and Zigarmi, 2015; Steffens and Haslam, 2014; Suan Choo, 2016; Suhartanto and Brien, 2018; Tims and Bakker, 2013; Tims et al., 2015; Van Beek and Taris, 2014; Xanthopoulou and Bakker, 2008; Zhong et al., 2016 |
| Supervisors' evaluation | 18 studies: Alessandri et al., 2018; Bakker and Bal, 2010; Bakker et al., 2012; Castanheira, 2016; Cesário and Chambel, 2017; Eldor and Harpaz, 2016; Eldor, 2017; Gutermann et al., 2017; Halbesleben and Wheeler, 2008; Karatepe, 2011; Karatepe and Aga, 2016; Karatepe and Olugbade, 2016; Lazauskaite-Zabielske et al., 2018; Lin et al., 2016; Shantz and Alfes, 2013; Wang et al., 2015; Yalabik and Popaitoon, 2013; Zhong et al., 2016 |
| Colleagues' evaluation | 1 study: Schmitt et al., 2016 |
| Researcher evaluation | 1 study: Kovjanic and Schuh, 2013 |
| Customers' evaluation | 3 studies: Menguc and Auh, 2013; Myrden and Kelloway, 2015; Salanova and Agut, 2005 |
| Company financial data | 6 studies: Badal and Harter, 2014; Coco and Jamison, 2011; Dijkhuizen et al., 2016; Gorgievski and Moriano, 2014; Lin et al., 2016; Xanthopoulou et al., 2009 |

Source: own elaboration.

8 Statistical analysis: methods used by authors of analyzed studies

Various authors, in order to verify their hypotheses, have applied various techniques of statistical modeling. The most commonly used was structural equation modeling (including variants such as path analysis, partial least-squares analysis, and confirmatory factor analysis), applied in 42 reviewed studies. One of its standard applications is research in the management science using scale-based questionnaires [Davcik, 2014]. In the remaining studies, researchers have benefited from other modeling approaches, such as multilevel linear regression, Bayesian methods, or canonical discriminant analysis (Table 7).

Table 7. Statistical modeling techniques applied to verify the association between employee engagement and performance

| Statistical technique | Research studies using the particular technique |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Structural equation modeling | 42 studies: Alessandri et al., 2018; Alfes and Truss, 2013; Ali et al., 2018; Anitha, 2014; Bakker et al., 2012; Barnes and Collier, 2013; Benn et al., 2015; Castanheira, 2016; Chughtai and Buckley, 2011; Coco and Jamison, 2011; Eldor, 2017; Findikli, 2015; Freeney and Fellenz, 2013; Gorgievski and Moriano, 2014; Gutermann et al., 2017; Halbesleben and Wheeler, 2008; Karatepe and Aga, 2016; Karatepe and Olugbade, 2016; Kašpárková et al., 2018; Kataria et al., 2013; Kim and Koo, 2017; Kovjanic and Schuh, 2013; Lathabhavan et al., 2017; Lazauskaite-Zabielske et al., 2018; Lorente and Salanova, 2014; Maden, 2015; Medlin and Green, 2009; Medlin et al., 2016; Myrden and Kelloway, 2015; Nazir and Islam, 2017; Nazli and Sheikh Khairudin, 2018; Park et al., 2017; Reijseger et al., 2017; Salanova and Agut, 2005; Shantz and Alfes, 2013; Shantz et al., 2016; Suan Choo, 2016; Suhartanto and Brien, 2018; Tims and Bakker, 2013; Tims et al., 2015; Van Beek and Taris, 2014; Yalabik and Popaitoon, 2013 |
| Multilevel linear regression | 25 studies: Albdour and Altarawneh, 2014; Akhtar et al., 2016; Bakker and Bal, 2010; Bal and De Lange, 2015; Cesário and Chambel, 2017; Dalal and Baysinger, 2012; Dijkhuizen et al., 2016; Eldor and Harpaz, 2016; Badal and Harter, 2014; Fletcher, 2016; Gordon and Demerouti, 2015; Kapil and Rastogi, 2017; Karatepe, 2011; Khan and Malik, 2017; Lin et al., 2016; Mäkikangas et al., 2016; Menguc and Auh, 2013; Rahman et al., 2017; Saks, 2006; Schmitt et al., 2016; Steffens and Haslam, 2014; Wang et al., 2015; Xanthopoulou and Bakker, 2008; Xanthopoulou et al., 2009; Zhong et al., 2016 |
| Bayesian methods | 1 study: Shuck and Zigarmi, 2015 |
| Canonical discriminant analysis | 1 study: Dash and Muthyala, 2016 |
| Pearson correlation coefficient | 1 study: Chong and Lee, 2017 |
| t-Test | 1 study: Farndale et al., 2014 |

Source: own elaboration.

The vast majority of analyzed studies had a cross-sectional structure of source data, thus they were conducted at one point in time. The consequence of this type of analysis design is the difficulty in determining the causal inference between variables, which, in the context of this review, is the association between employee engagement and various aspects of performance. However, it is proven that meeting certain requirements can strengthen causal inference and mitigate the risk of common-method variance [Rindfleisch et al., 2008]. According to Rindfleisch et al. [2008, p. 276], cross-sectional data are applicable especially for studies that are well embedded in theory, use reliable measurement scales and statistical tools, and involve well-educated respondents.

In the case of 13 analyzed studies, the source data had a longitudinal or time-lag structure, which means that the variables had been quantified at least twice over time [Alessandri et al., 2018; Bal and De Lange, 2015; Halbesleben and Wheeler, 2008; Karatepe, 2011; Karatepe and Aga, 2016; Karatepe and Olugbade, 2016; Khan and Malik, 2017; Myrden and Kelloway, 2015; Tims et al., 2015; Wang et al., 2015; Xanthopoulou and Bakker, 2008; Xanthopoulou et al., 2009; Yalabik and Popaitoon, 2013]. Successive measurements of the same variables enable more unambiguous identification of the causal link between them. However, a drawback is the risk of reducing the rate of responses received for repeated measurements, as well as the occurrence of intermediate events, which could disrupt the results of a study [Burkholder and Harlow, 2003].

The next division of reviewed publications can be made by taking into account the directness of relationship between employee engagement and its consequences. Among the analyzed articles, in 89% of the cases, the authors have examined only the direct relationship between the variables. In other publications, the link has been supplemented by an additional mediating factor (motivation, workplace optimism, service climate, team orientation, and learning goal orientation). Their introduction was aimed at strengthening the original relationship, which has been proved by the studies' results.

9 Results reported by the reviewed research studies

Forty-eight studies found a statistically significant relationship between employee engagement and task performance, although one study concluded that only organizational engagement (one of the engagement dimensions) is related to the individual level of task performance [Kim and Koo, 2017]. Forty-six studies examined the association between work engagement and contextual performance in terms of the following behavioral aspects: organizational citizenship behavior, extra-role behavior, innovative behavior, employee retention (positive), turnover, absence intention (negative), organizational and career commitment, initiative, active learning behavior, knowledge sharing, creativity, proactivity, counterproductive behavior (negative), adaptability, decision-making quality, and safety behaviors. Thirty-six of these studies fully confirmed the formulated hypotheses, whereas 10 showed mixed results. Gordon and Demerouti [2015] found that work engagement was an antecedent only of daily analytical decision-making, however, not of intuitive decision-making. Halbesleben and Wheeler [2008] revealed that engagement was not significantly related to turnover intention (negative relation). Two studies found that work engagement was not associated with organizational citizenship behavior [Tims et al. 2015, Zhong et al. 2016]. Saks [2006] concluded that only organization engagement predicted organizational citizenship behavior. Albdour and Altarawneh [2014] and Farndale et al. [2014] confirmed that organization engagement was not significantly related to continuance commitment, one of the organizational commitment components. Reijseger et al. [2017] found that employee engagement was not associated with counterproductive behavior (negative relation). Kim and Koo [2017] concluded that organization engagement was not significantly related to innovative behavior. In the study of Shuck et al. [2015], the relationship between employee engagement and behavioral outcomes depended on the scale used to measure engagement. Results were statistically significant when UWES-9 was applied but inconclusive when the Job Engagement Scale was used.

Seven studies found a statistically significant link between employee engagement and financial performance (revenue, profit, and inventory shrinkage cost), although one concluded that engagement was associated only with profit but not turnover [Dijkhuizen et al., 2016]. Seven studies focused on the association between engagement and nonfinancial performance (environmental performance, customer satisfaction, number of employees, and safety level). In six of these studies, the hypotheses formulated by the authors were confirmed, whereas one did not find a statistically significant link between entrepreneur engagement and the level of company's employment [Dijkhuizen et al., 2016].

10 Conclusions, implications, and limitations

10.1 Conclusions

The literature review on the association between work engagement and various performance categories proves the growing interest of researchers in the subject. To put it in context, 50 out of the 71 analyzed papers have been written in the past 5 years. Overall, authors have conducted empirical studies in 25 countries, in diverse geographical regions, based on data from various industries such as financial services, education, construction, or hospitality. However, ordering and categorization of prior studies revealed the uneven distribution of the analyzed research across six categories, which were defined to reflect the different types and levels of performance. There is a particular deficiency in studies on the association between engagement and outcome performance aspects, as well as association between engagement and performance on aggregated (team and organizational) levels.

The conceptualization of employee engagement is well established, with domination of the Utrecht Group construct of engagement and the corresponding definition, as it was adopted by more than three-quarters of the reviewed literature. All definitions, however varying and emphasizing different aspects and dimensions of engagement, are based on Kahn's concept of personal engagement, demonstrating their belonging to the same conceptual approach. The majority of studies shared not only the same conceptual

framework but also the same methods of research. The UWES variants, the UWES-9 and the UWES-17, developed by Schaufeli and Bakker, have been applied in 79% of the analyzed papers. Data sources that have been used to quantify the level of employee performance were limited mainly to self-reported questionnaires (61% of all studies used only this type of data source). Six studies relied on companies' hard data such as financial results and performance indicators. In terms of statistical modeling, the authors applied methods typical for management research using scale-based surveys [Davcik, 2014]. Thus, 59% of the reviewed papers benefited from various forms of structural equation modeling.

In the case of 59 publications, the conducted analysis fully confirmed the authors' hypotheses, proving the existence of a statistically significant relation between employee engagement and various performance categories. In this group, 11 out of 13 studies had a longitudinal or time-lag design, which more unequivocally verified the causal relationship between the variables [Burkholder and Harlow, 2003]. The hypotheses formulated in the remaining publications (12 out of 71 papers) were only partially confirmed. In one case, the strength of the correlation depended on the tools used to quantify the level of employee engagement. In the remaining studies, part of employee engagement-related implications, such as intuitive decision-making quality, individual dimension of organizational citizenship behavior, and turnover intention (negative relationship), were not confirmed.

10.2 Recommendations for future research

Categorization of prior studies on the association between employee engagement and performance revealed the research areas requiring further exploration. The agenda of future research ought to include more studies exploring links between engagement and both financial and nonfinancial dimensions of outcome performance. Furthermore, subsequent studies can contribute to the body of knowledge by focusing more on the association between engagement and performance on both team and organizational levels, which are underrepresented, compared to studies considering performance on the individual level.

Well-established research methods will certainly be beneficial in further exploration of the subject and, consequently, in the development of existing knowledge. However, greater effort should be directed at using more objective source data, rather than the most common self-reported questionnaires [Podsakoff et al., 2003]. Among them, analysis based on financial results would be particularly beneficial. Obtaining source data of this type is generally more difficult than in the case of other analyzed causal links; nonetheless, results of these studies would probably be the most compelling for employers. In order to unequivocally confirm the direction of causality in the analyzed relationships, researchers should conduct more studies of longitudinal nature. Although cross-sectional studies, when designed properly, can provide limited evidence for causality, it is preferable to rely on measurements repeated over time, as they firmly prove temporal-causal inferences [Rindfleisch et al., 2008]. While the majority of research studies used UWES scales for assessing engagement, doubts still remain about the measure. Kulikowski [2017] argues that its factorial validity is ambiguous, whereas Viljevac et al. [2012] raise concern about its discriminant validity with regard to job satisfaction. Therefore, it is recommended to research more on the measurement of work engagement, as current, well-established scales may have limitations.

A growing body of scientific evidence on the positive effects of employee engagement should lead to an equally intense research on its antecedents. Only a thorough understanding of the factors generating work engagement will allow the implementation of effective programs and practices, securing the growth of organizations in this aspect of their activity [Wollard and Shuck, 2011]. In this context, it is essential for the further research to include generational diversity that can be found in most companies. The study by Akhavan Sarraf et al. [2017] proves that there are significant inequalities in employee engagement levels between generations, and also that individual engagement constructs can differ based on employees' age. Presumably, the sources of work engagement of today's 30-year-old employees are significantly different from the antecedents that develop engagement in the generation of their parents. As a result, effective management of employee engagement can lead not only to its growth in all workers' age groups, but also reduce the common lack of mutual understanding between generations in their approach to work and expectations toward employer.

10.3 Implications for practice

In practical terms, the literature review confirmed the wide range of implications related to employee engagement on the functioning of companies. In addition to general work performance indicators, researchers proved the impact of engagement on particularly valued attitudes, such as innovativeness, active learning behavior, knowledge sharing, and adaptability. From a pragmatic business standpoint, work engagement leads to the development of an organization, defined as a growth of revenues, net income, and employment [Gorgievski and Moriano, 2014]. The current global trend of the labor market to transform itself into an employee market, together with the low overall level of work engagement, should incline companies to develop their HR strategies recognizing the importance of this construct. Nevertheless, the process requires certain investments in antecedents of engagement [Wollard and Shuck, 2011], adjusting the organization to the new demands, enabling employers to calculate the return on engagement and, on this basis, making more-informed managerial decisions.

10.4 Limitations

The article is not free from the limitations typical of this kind of literature reviews [Petticrew and Roberts, 2006]. The limitations are associated with the method applied in order to select publications for analysis. The first one concerns the criteria that had to be met in order for the empirical study to qualify for the review (selection of papers based on rigidly defined expressions in their abstracts). Furthermore, researchers suggest distinguishing the concept of performance from that of effectiveness and productivity [Campbell et al., 1993], which, if taken into account, could also influence the final number of selected articles. The second constraint is associated with the limited number of online databases that supported the search process. Finally, the review does not include conceptual papers that potentially could enhance it in terms of theoretical aspects of the concept of work engagement.

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