Role and Measurement of Employee Resilience in the Organisation: A Systematic Review on the Empirical Studies

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Recent studies on resilience showed that organisational capacity to build resilience in facing the changes depends on an organisation's ability to integrate the cores practices and procedures through its employees' contribution. Employees' resilience becomes a very important matter because employees are the agents of change. This study is a literature review on employee resilience empirical research that discuss variables in the organisation related to employee resilience, roles and measurements used. There are 48 variables found in the literature which show how important the role of employee resilience is in the organisation. These variables are then mapped into 9 groups and their role in employee resilience. Further, the study indicates what variables have been rigorously investigated and which have not. Next, the concept of employee resilience is discussed, both as personal capacity and developed resources acting as antecedent, mediator, moderator and outcome. 14 scale measurements on employee resilience are also mapped with quantitative approaches conducted by the previous studies, in the context of work and non-work. Those measurements are then adopted in the context of working, be it as a whole, in part or in a shorter version than the previous ones. Finally, results of the study could be used as to rationalise and consider further studies related to employee resilience in the future.

Key words: *Employee resilience, resilience roles, measurement, systematic review.*

Introduction

An organisation operates in a competitive atmosphere indicated by tight global competition that requires organisational ability to be be fast, innovative, and flexible (Zhang, Wan and Jia, 2008). The ability of how an organisation anticipates change is an important key for surviving and developing the organisation (Heuvel, Demerouti and Bakker, 2014). Employees play an important role in making their organisation agile through their attitudes and behaviours (Griffith and West, 2013), and resilient employees who are able to, positively and competently, responsd to the changes are needed by the organisation for the survival and prosperity of the organisation's future (Wang, Cooke and Huang, 2014). Luthans, Vogelgesang and Lester (2006) even mentioned that to enable an organisation to face change, it has to invest in building employee resilience.

Numerous studies on resilience have been conducted by Waugh, Fredrickson and Taylor (2008) on personal resilience; by Maltby, Day and Hall (2015) on characteristics of resilience, and; by Fourie and Van Vuuren (1998) on carrier resilience. Ego resilience was studied by Farkas and Orosz (2015) and employee resilience by Kuntz, Näswall and Malinen (2016). Several other literature reviews on resilience studies of organisations were also conducted: Linnenluecke (2015) on bibliographic mapping that identifying five form of researches on resiliency; Williams et al. (2017) on organisational resiliency related to management crises; Britt et al. (2016) who observed various concepts on employee resilience and programs to build it; and Kuntz, et al (2017) who focused on how resilient employees could be developed into individual capability.

A review conducted by Britt et al. (2016) has proposed the conceptualisation on employee resilience, however it has not yet been discovered how the implications for the role of employee resilience are related to other variables in the organisation. Meanwhile Kuntz, et al (2017) who also focuses on employee resilience still does not convey how employee resilience is measured through the dimensions that have been done by previous researchers.

The main motivation of this study is to fill the research gap by doing a systematic review on the role and measurement of employee resilience. The objective of this article is to review empirical research on employee resilience, what variables in organisations relate to employee resilience and how the underlying concept of its role in developing other variables is related to the scope of individuals, the environment and organisational support. This can add opportunities and future research directions in practice in the organisations. In addition, a review of the measurements that have been used in the previous study can develop an understanding of the measurement context and the appropriateness of the measurements to be used in future research.

Empiric-quantitative approach of this study, therefore, is addressed into complimenting the previous studies on resilience. It will add more information in the development of more studies on employee resilience. It also expected to show that resilience is needed in more dynamic organisational environments and presents some consideration in doing more research on employee resilience in the future.

Protocols for Literature Reviews

The literature review done in this study follows the systematic reviews suggested by Newbert (2007). The review starts with database keywords in Scopus and ProQuest journals to identify articles on resiliency in the title and abstracts. Searching processes were conducted up to November 2019. Literatures that met the criteria and was published between 2004 to 2019 was then reviewed. Next, those articles were synthesized to find out how the role of resiliency was brought up and measured in any empirical study based on related variables on employee resilience in an organisation.

The keywords used were "employee resilien*, worker resilien*; and resilien* at work. Included in the process are titles, abstracts and article keywords. Searching protocols can be explained in the following graph below.

Figure 1. Protocol Diagram in Literature Searches
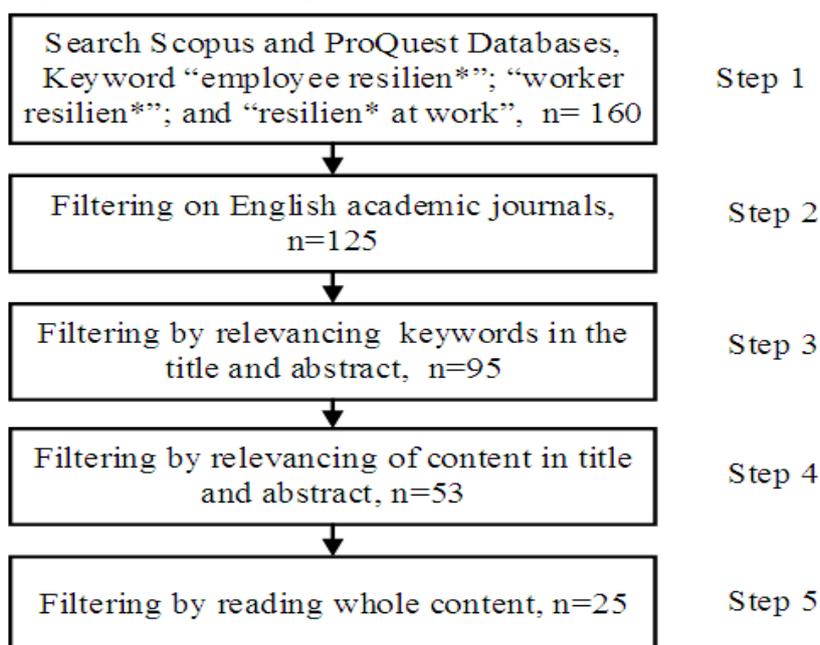
Out of 125 articles found in the 2nd step, from Scopus and ProQuest, a study on employee resilience and the resilience of social workers by Yin, published in 2004, was found. Searches in stage 3 produced findings that indicate 95 articles have similar results based on keywords as

well as abstracts. These findings were then mapped by year published and showed that studies on employee resilience increased sharply within the period of 2016-2019, as shown in Table 1. Further, after reading the abstract and its full content in stage 4, 53 articles came up. The other 42 articles were dropped since they do not meet the criteria of employee resilience in an organisation, nor one on quantitative method.

Table 1: Number of Employee Resilience Studies (step 3)

| Year	Number of studies
2004	1
2005	1
2006	2
2008	1
2009	1
2011	1
2012	4
2013	1
2014	4
2015	3
2016	19
2017	10
2018	15
2019	32

Sources: Scopus and ProQuest, November 2019

Based on the filtering process, 25 articles that emerged from stage 5 were reviewed. Results of the review are discussed in the next section. It presents the association between various variables in the organisation with employee resilience, the role of employee resilience and measurement applied in those studies.

Results and Discussion

In the last several years, studies on employee resilience have attracted the interest of many researchers and practitioners. Out of 25 studies that have been validated meeting the criteria, it was found that studies on employee resilience in an organisation involve 48 variables in the work place. These variables are then grouped into 9 groups (Figure 2).

Figure 2. Grouping of the variables related to employee resilience studies in organisations
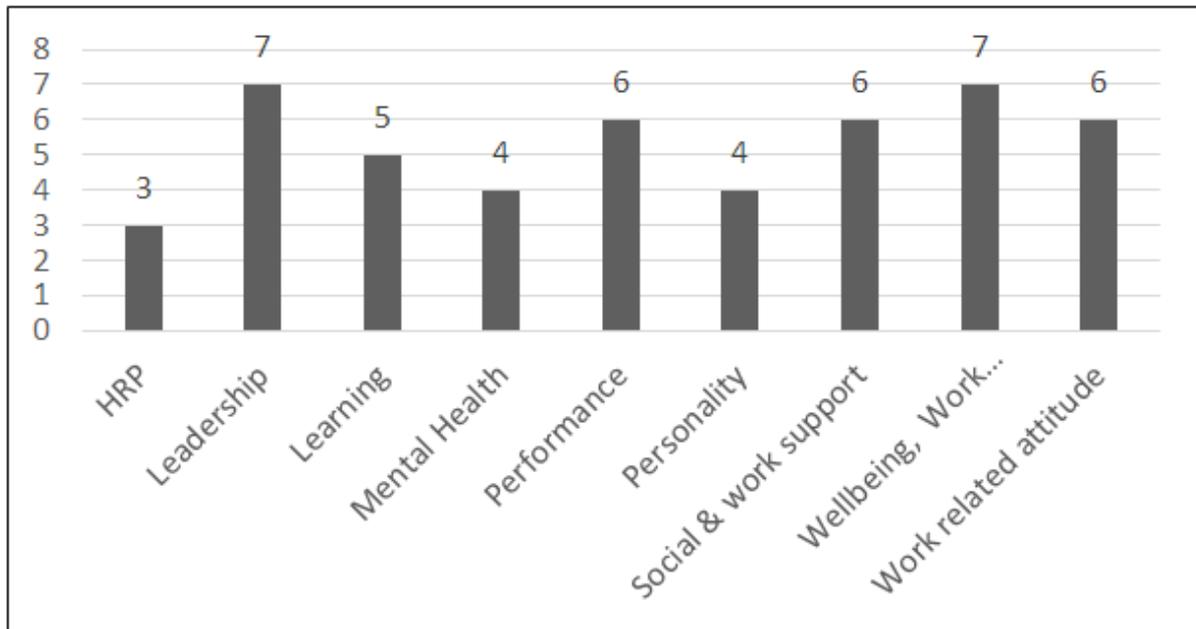
Discussion related to the leadership variable is the most discussed topic in employee resilience research, which is 15%. These variables act as dependent variables that are directly or indirectly affected by employee resilience variables. Meanwhile, discussions on human resource practices were the smallest, at 6%. Furthermore, variables related to employee resilience used in the article being reviewed are shown in Table 2 below.

Table 2: Related Variables in Employee Resilience (ER) Studies

Group	Related Variables		Employee Resilience
	Name	**Role**	**Role**
HRP	High-intention work performance	antecedent	mediator
	High-performance work system	antecedent	mediator
	Well-being HRM	antecedent	mediator
Leadership	LMX	antecedent, moderator	outcome, antecedent
	Humble leadership	antecedent	outcome
	Paradoxical leadership	antecedent	outcome
	Empowering leadership	antecedent	outcome
	Supportive leadership	antecedent	outcome
	Leaders' behaviour	antecedent	outcome
	Contingent rewards leadership	antecedent	outcome

Group	Related Variables		Employee Resilience
	Name	Role	Role
Learning	Learning-oriented organisational climate	antecedent	mediator
	Learning culture	antecedent	mediator
	Inquiry and dialog;	antecedent	mediator
	Knowledge sharing structure	antecedent	mediator
	Learning organisation	antecedent	mediator
Mental health	Emotional exhaustion	mediator	moderator
	Employee shame	mediator	moderator
	Burrnout	outcome	antecedent
	Employee self-criticism	outcome	moderator
Performance	Employee performance	outcome	mediator
	Extra-role performance	outcome	antecedent
	OCB	outcome	antecedent
	Supervisor reported service performance	outcome	moderator
	Self-capacity to satisfy customer	outcome	moderator
	Distruptive crative behaviour	outcome	antecedent
Personality	Regulatory focus	Mediator	outcome
	Work promoted focus	Mediator	outcome
	Proactive personality	mediator	outcome
	Optimism	mediator	outcome
Social & work support	Perceived org support	mediator	outcome
	Social climate	mediator	mediator
	TMX	mediator	antecedent
	Work resource (co-worker & Supervisor)	antecedent	outcome
	Abusive supervision	antecedent, mediator	mediator
	Co-worker support	antecedent	outcome
Wellbeing, work demand & safety	Perceived performance pressure	mediator	outcome
	Work overload	mediator	moderator
	Customer incivility	antecedent	moderator
	Intimidation	outcome	moderator
	Job insecurity	outcome	antecedent
	Employee wellbeing	antecedent	outcome
	Perceived insider identity	mediator	outcome
Work related attitude	Org commitment	mediator	antecedent
	Proactive behaviour	outcome	mediator

Group	Related Variables		Employee Resilience
	Name	Role	Role
	Employee engagement	mediator, outcome	mediator, antecedent,
	Retirement intention	outcome	mediator
	Affective commitment to change	outcome	mediator, antecedent,
	Intention to leave	outcome	antecedent

The many variables that have been found in research related to employee resilience show the important role of employee resilience in the organisation. For this reason, we will discuss the role of employee resilience variables in relation to the variables used in the literature reviewed both as an antecedent, mediator, moderator, and also as an outcome.

Employee Resilience as an Antecedent

Out of the 25 research articles that have been reviewed, seven articles put employee resilience as an antecedent. These variables are grouped into four groups, namely performance (Paul, Bamel and Garg, 2016; Gupta and Sharma, 2018; Clercq and Pereira, 2019), work-related attitude (Wang, Li and Li, 2016; Dai, Zhuang and Huan, 2019); mental health (Meng et al., 2017), and work safety (Tentama and Rosandy, 2019).

Regarding performance, Paul, Bamel and Garg, (2016) argue that employee resilience involves three things, namely (a) as a capacity that reflects behaviour; (b) related to change; and (c) related to efforts to deal with unwanted situations. Their results suggest that employee resilience as a relatively unique positive psychological capacity positively influences organisational citizenship behaviour (OCB). Resilient employees will find their lives meaningful, which will give them a sense of responsibility and ownership in whatever is done.

Clercq and Pereira (2019) use the definition of employee resilience as a personal resource and confirm a positive relationship between employee resilience and creative behaviour that disturbs them. These findings provide a more complete understanding of the organisation that when employees cannot handle their workloads, they will channel energy that comes from their resilience into activities that are considered disruptive to resolve difficulties at work.

Employee resilience also acts as an antecedent to work-related attitudes, such as employee engagement and organisational commitment. Gupta and Sharma (2018) show that employee resilience holds strong predictive value on employee engagement. Referring to the definition of resilience in the workplace from Luthans (2002) where resilience is a positive psychological capacity, Gupta and Sharma (2018) state that employees with high resilience tend to be more involved with the organisation because they have positive emotions that are developed during changes in workplace. Employee involvement in the organisation is considered a positive

experience related to work. In the same context, involvement in work is also positively related to employee resilience (Wang, Li and Li, 2016).

Meanwhile, in relation to organisational commitment, Paul, Bamel and Garg (2016) emphasise that employee resilience also influences organisational commitment. Organisational commitment built by employee resilience will have consequences in the behaviour of its commitment. Resilience as a capacity of resources allows one to avoid impulsive and reactive behaviour and resilience increases the affective attachment of individuals to the organisation and the people in the organisation. This is in line with Youssef and Luthans (2007), where in that situation employee resilience will return to the equilibrium and even provide opportunities for growth outside the equilibrium point.

Resilience is the capacity to maintain the ability to deal with stressors, as well as the ability to endure, adapt to deal with and solve problems (Kaplan et al, 1996). Wang, Li and Li (2016) investigated the relationship between employee resilience and positive effects, and showed that resilience is a personal resource that promotes positive influence. Highly resilient employees will successfully deal with stress and negative events and therefore have a high level of positive influence. The concept of resilience as a personal resource is also closely related to the mental attitude of employees regarding their safety in the work place (Tentama and Rosandy, 2019).

Based on the articles reviewed, it can be seen that in their role as an antecedent, employee resilience is conceptualised as a personal capacity or personal resource that can help employees to get back on their feet as Luthans (2002) dan Luthans et al. (2007b). suggested. High resilience in employees will affect performance, work behaviour, and mental health and well-being.

Employee Resilience as a Mediator

The role of employee resilience as a mediator is used to mediate variables related to human resource practices (HRP) and work-related attitudes (Cooke et al., 2016; Salminen et al., 2019), learning and work-related attitude variables (Malik and Garg, 2017b, 2017a; Caniëls and Baaten, 2019), as well as variables related to social support and performance (Cooper et al., 2018).

Cooke et al. (2016) conceptualise resilience as a psychological resource that has the potential, when developed and managed effectively, to obtain positive individual and organisational outcomes. The results of the study reveal that employee resilience is a set of skills and attributes that can be developed through the use of effective high-performance work systems (HPWS) to benefit both individuals and organisations. Research on HRP was also carried out by Salminen et al. (2019). They examined the relationship between HRP and retirement intention mediated

by employee resilience. They suggested that HRP was positively related to employee resilience and influenced retirement intention. Using the theory of conservation of resources, the current findings indicate that HRP has the potential to increase employee resilience mainly through developing skills and formal employee support systems, and that it has a positive impact on the resilience of older employees, which in turn can affect retirement intention. Welfare-oriented HRP can affect employee resilience and have an impact on improving employee performance (Cooper et al., 2018).

Malik and Garg (2017a, 2017b) follow the definition of employee resilience as an ability that can be developed to recover from adversity, conflict, and failure or even positive events, progress, and increased responsibility (Luthans, 2002). In two of their studies using broaden-and-build theory research approaches and conservation of resource theory, they found that 1) employee resilience partially mediates the influence of learning organisations on work engagement, and 2) employee resilience partially mediates the relationship between learning culture, inquiry and dialogue, knowledge sharing structures and affective commitment to change. Employee resilience is considered able to develop through a culture of learning because employees continue to be motivated to face challenges and find sophisticated ways of dealing with change. Caniëls and Baaten (2019) who conceptualise resilience as a trait variable used as a personal resource in supporting adaptation to better conditions, also conveyed that the nature of employee resilience is a good mediator. This is because employee resilience brings some adaptation actions in the face of severe circumstances, thereby promoting proactive work and proactive strategic behaviour.

In its role as a mediator, employee resilience is conceptualised as a personal capacity or personal resource that can be developed. Its development is assisted by a variety of human resource practices, learning, and social support or social support. This growing employee resilience will have an impact on work-related attitude (Cooke et al., 2016; Salminen et al., 2019; Malik and Garg, 2017b, 2017a; Caniëls and Baaten, 2019), and performance (Cooper et al., 2018). Although employee resilience is conceptualised as personal capacity as its role as an antecedent variable, its role as moderator is emphasised more on how this resilience can be developed.

Employee Resilience as a Moderator

The role of employee resilience as a moderator variable is found in three articles. It was found that employee resilience moderates social support and mental health variables (Al-hawari, 2019; Fatima, Majeed and Jahanzeb, 2020), and it is also moderating variables on work overload and intimidation (Kimura, Bande and Fernandez-Ferrín, 2018).

Al-hawari (2019) stated that employee resilience can mitigate the relationship between abusive supervision, customer incivility and emotional exhaustion. This finding highlights the importance of managing employee resilience as a resource that can be depleted with constant exposure to stressors. A similar concept can also be seen from the research of Kimura, Bande and Fernandez-Ferrín (2018) who adopted the perspective of employee resilience as a capacity that can be developed. They mentioned that overwork has a positive relationship with bullying, and the direct effect of overwork on bullying depends on the level of employee resilience. Thus, in the face of an adverse work environment, individuals who believe that they are resilient will likely feel that they have adequate resources to overcome difficulties. On the other hand, individuals who consider themselves resilient tend to feel that they lack coping resources.

From the three studies, it can be seen that as a moderator, employee resilience can provide reinforcement for other variables, namely social support, mental health, and work overload on intimidation felt by employees.

Employee Resilience as an Outcome

In articles reviewed, ten articles were found to have placed employee resilience as an outcome variable from other variables such as leadership variables (i.e Zhu, Zhang and Shen, 2019), social support (i.e Kuntz et al., 2017), and well-being (Tonkin et al., 2018). Research related to leadership influencing both directly and indirectly employee resilience, has been conducted by several researchers. Nguyen et al., (2016) conducted research on employee resilience through empowering leadership and contingent reward leadership. They adopted the employee resilience approach from Näswall et al. (2013), namely a series of workplace behaviours that are oriented towards learning and building relationships, supported by organisations, which enhance organisational functions. Leader behaviour, both attractive behaviour and one-dimention behaviour, also has a significant direct effect on employee resilience while reverse behaviour has an indirect effect (Salehzadeh, 2019).

By using leader-member exchange (LMX) theory, Caniëls and Hatak (2019) and Kakkar (2019), also found that LMX can contribute optimally to employee resilience if it is dominated by its social component. Meanwhile according to Kakkar (2019) LMX affects employee resilience mediated by the promotion of regulatory focus. These findings reinforce employee resilience as a process of development, not just the nature or results. By developing and maintaining long-term relationships based on mutual trust with their followers, leaders can strengthen employee resilience. Humble leadership (Zhu, Zhang and Shen,2019), paradoxical leadership (Franken, Plimmer and Malinen, 2019), and supportive leaders (Wang and Bartram, 2019), also have a stronger role in increasing employee resilience when perceived performance pressure is high. This study raises important implications for the theoretical development of

employee resilience and for management practices regarding efforts to encourage employee resilience in organisations.

Besides being influenced by leadership, employee resilience is also influenced by co-worker support and well-being. According to Cooke, Wang and Bartram (2019), colleague support is positively related to employee resilience. Tonkin et al. (2018) also suggest that organisational leaders must explicitly create a culture that supports employee well-being and employee resilience in order to build collective capacity for organisational resilience, and thus will help employees to adapt, revive and thrive in facing challenges.

Measurement

After discussing the roles of employee resilience variables, the discussion in this section will describe the measurement instruments used by researchers. Measurement instruments are important in quantitative research because information gathering about employee resilience is carried out directly by filling out measurement questionnaires that have been tested and validated. Of the 25 articles reviewed, all articles are known to use or adopt measurement scales that have been tested and validated by previous researchers. Dimensions and measurement items used are adopted in whole or in part.

In reviewing the articles, it is found that 14 initial measurement scales have been tested in previous research. There are three other measurement scales which are shorter versions and adopted from the previous measurement scales, namely
1) The 10-item Connor-Davidson Resilience Scale (CD-RISC 10) by Campbell-sills and Stein (2007) which is the short version of the CD-RISC - Connor and Davidson (2003),
2) The Resilience Scale (sub-scale of the PCQ 12 - Avey, Avolio and Luthans, 2011)) which is a short version of the Resilience Scale (sub-scale of the PCQ 24) by Luthans et al. (2007), and
3) The Resilience Scale RS-11 by von Eisenhart Rothe et al. (2013), a shorter version of the Resilience Scale RS-25 (German RS-25 scale) by (Schumacher et al., 2005).

The overall scale of measurement is presented in Table 3 and 4. In Table 3, we add information about the focus / concept of employee resilience that underlies the researcher using the no-work context measurement in their work context research .

The scale of resilience measurement made in the previous article appears to have a different context, that is, not made in a within and without a work context. The seven previous measurement scales that measure individual resilience not in a work context, namely ER 89, RQ test, CD RISC, Resilience Scale by Hardy, Concato and Gill (2004), German RS-25, The Brief Resilience Scale (BRS), dan The Resilience Scale (RS-14). It is said not in a work context

because the sample used in the study was not an individual worker and related to his condition at work, but rather the individual sample such as patients, students, and the adult-old community (age 53-95 years).

Table 3: Measurement Scales (no-work context)

No	Scale - Author	Measure Purpose (no-work context)	Dimension (Item)	Short – Development Version	Usage in articles reviewed – work context	Dimension (Item)	ER Focus /concept
1.	Ego-Resiliency Scale (ER 89) - Block and Kremen (1996)	• To measure ability to change from and also return to the individual's characteristic level of ego-control after the temporary, accommodation - requiring stressing	1 (14)	-	Dai, Zhuang and Huan (2019)	1 (14)	Employees' capacity for recovering from negative emotions and adjusting to a constantly changing environment.
					Gupta and Sharma (2018)	1 (14)	Positive psychological capacity
2.	Resilience Quotient Test (RQ Test) –	• To measure individual aspect in life	7 (56)	-	Tentama and Rosandy (2019)	7 (56)	Resilience is an internal resource
3.	The Connor–Davidson Resilience Scale (CD-RISC) - Connor and Davidson (2003)	• To measure stress and coping ability and used to evaluate change in response to a drug intervention	5 (25)	CD-RISC 10, 5(10), by Campbell-Sills & Stein (2007), Chinese version by Wang, Shi, Zhang, & Zhang (2010)	Salehzadeh (2019)	5 (25), CD-RISC	Psychological capital
					Meng *et al.* (2017)	5 (10) CD-RISC 10 Chinese version	Psychological capital
					Tonkin *et al.* (2018)	5 (10) CD-RISC 10	Psychological capital
4.	Resilience Scale - Hardy, Concato and Gill (2004)	• To assess resilience of community-dwelling older persons based on response to a stressful life event and to identify the demographic, clinical, functional, and psychosocial factors associated with high resilience.	1 (9)	-	Salminen et al. (2019)	1 (9)	Positive psychological capacity
5.	German RS- 25 - Schumacher *et al.* (2005)	• To measure what is going right versus what is going wrong in individual life.	1 (11)	The Resilience Scale (RS-11) – von Eisenhart Rothe *et al* (2013)	Caniëls and Baaten (2019)	1 (11)	Trait variable that has state-like characteristics
6.	The Brief Resilience Scale (BRS) - Smith *et al*. (2008)	• To assess the individual's ability to bounce back or recover from stress.	1 (6)	-	Fatima, Majeed and Jahanzeb (2020)	1 (6)	Resilience as an upward spiral effect in which a person bounces back with more strength after

No	Scale - Author	Measure Purpose (no-work context)	Dimension (Item)	Short – Development Version	Usage in articles reviewed – work context	Dimension (Item)	ER Focus /concept
							facing negative events.
					Kimura, Bande and Fernandez-Ferrín (2018)	1 (3)	Resilience as an individual capacity
7.	The Resilience Scale (RS-14) - Wagnild and Young (2009)	• To identify the degree of individual resilience (personal competence and acceptance of self and life)	2 (25)	-	Paul, Bamel and Garg (2016)	1 (14)	Resilience is a capacity that reflects in behaviour, dealing with change and relates to overcoming unwanted situations

Table 4: Measurement Scales (work context)

No	Scale - Author	Dimension (Item)	Short – Development Version	Usage in research on articles reviewed	Dimention (Item)
1.	Resilience Scale [sub-scale of the PCQ 24 - Luthans et.al. (2007)	1 (6)	Resilience Scale (sub-scale of the PCQ 12) - Avey, Avolio and Luthans (2011)	Al-hawari (2019)	1 (6) from PCQ 24
				Cooper et al. (2018)	1 (3) from PCQ 12
2.	Resiliency scale - Siu et al.(2009)	1 (9)	-	Wang, Li and Li (2016)	1 (9)
3.	Resilience at Work (RAW) - Winwood et al. (2013)	7 (20)	-	Malik and Garg (2017a, 2017b)	7 (20)
4.	The Employee Resilience (EmpRes) - Näswall et al. (2013)	1 (12)	-	Nguyen et al. (2016)	1 (12)
				Kuntz et al. (2017)	1 (9)
				Tonkin et al. (2018)	1 (12)
				Franken, Plimmer and Malinen (2019)	1 (9)
				Kakkar (2019)	1 (9)
				Zhu, Zhang and Shen (2019)	1 (9)
5.	Resilience - Caza and Bagozzi.(2010)	1 (5)		Clercq and Pereira (2019)	1 (5)
6.	Resilience scale - Wang, Cooke and Huang (2014)	9 (36)	-	Cooke et al. (2016)	9 (36)
				Cooke, Wang and Bartram (2019)	9 (36)

No	Scale - Author	Dimension (Item)	Short – Development Version	Usage in research on articles reviewed	Dimention (Item)
7.	Employee Resilience work scale - (Meneghel *et al.*, 2016)	1 (9)	-	(Caniëls and Hatak, 2019)	1 (9)

The results of the review show that some subsequent studies used measurement scales that were not in the work context into research in the work context. Use in different contexts is done because measurements are considered to have been validated as general measurements (Connor and Davidson, 2003) and based on the concept of resilience taken in their research. For example, research conducted by Connor and Davidson (2003) using CD-RISC with adult patient samples, was developed for clinical practice aimed at measuring individual capacity through five factors (personal competence, trust, acceptance of change and safe relationships, control, and spiritual influence) in dealing with stress in response to drug intervention. Meanwhile, Meng et al. (2017) refer to employee resilience as psychological capital and used a short version of the CD-RISC with a sample of civil servants in order to examine the relationship between employee resilience and organisational commitment and burnout.

Discussion

The first objective of this review is to find variables in organisations related to employee resilience. It is identified that 48 variables had a direct or indirect relationship to resilience. The results show that most of the studies discuss work related attitude related variables, such as engagement (Cooke et al., 2016; Wang, Li and Li, 2016; Malik and Garg, 2017a; Dai, Zhuang and Huan, 2019) and commitment (Malik and Garg, 2017b; Meng et al., 2017). Both engagement and commitment are examined as an outcome of employee resilience.

Luthans (2002), who thinks that resilience is based on the theory of positive organisational behaviour, states that resilience as positive psychology capacity is important in order to recover from any changes in the organisation. For organisations, having strong and adaptable employees will increase the success rate of implementing change and minimise the potential negative workforce impact of absenteeism, employee turnover and reduced involvement.

The second objective of this review is to determine the role of employee resilience in research in an organisations. It is known that previous researchers have thoroughly studied how employee resilience acts as an antecedent, mediator, moderator, and outcome in research in the workplace. From this review it can be shown that employee resilience has a causal relationship that can increase, weaken, or strengthen 48 other variables in the organisation. In its role as an

antecedent, employee resilience is conceptualised as a personal capacity or personal resource that can help employees to get up and provide motivation to become better. High employee resilience will affect performance, work behaviour, and mental health and well-being. Sustainable organisational change requires adaptive and resilient employees who are able to maintain a level of performance and well-being in the face of an often challenging organisational change environment (Robertson et al., 2015).

Resilience studies in organisations also show that an organisation's capacity to build resilience, and to successfully manage crises and transitions, depends to a large extent on its ability to utilise and integrate core practices and procedures with employee contributions (Lengnick-hall, Beck and Lengnick-hall, 2011; Shin, Taylor and Seo, 2012). As a mediator and outcome variable, research on employee resilience is more emphasised on how it can be influenced and developed, and managed effectively, to obtain positive individual and organisational outcomes. Luthans, Vogelgesang and Lester (2006) suggested that resilience can be developed through good organisational and management practices. Social support and organisational relationships have been found to greatly affect employee resilience. Support from supervisors and constructive feedback has also been found to affect resilience (Bardoel et al, 2014; Kuntz et al,, 2017). Shin, Taylor and Seo (2012) view organisational resources and practices as enabling conditions for the development of a resilient workforce, which will determine the organisation's capacity to overcome challenges and create competitive advantage. Employee resilience will also strengthen other aspects of the organisation such as social support and workload on mental health and perceived employees.

The third objective is to see how the context of measurement was made and used by previous researchers. A review of the 14 initial measurement scales and 3 measurement scales which are shorter versions of the previous one, show that the measurements were carried out in different contexts. The 7 initial research scales and the 2 shorter versions are measurements of individual resilience used in contexts not in the workplace. Resilience in the measurement is described as nature (i.e Block and Kremen, 1996) and as individual capacities (i.e Connor and Davidson, 2003).

Seville (2018) said that hiring more people who have good levels of resilience is not a guarantee that people will be tough when needed and cannot be automatically translated into having a strong organisation or team, even though the two are related. Tonkin et al. (2018) who investigate the effects of welfare interventions on two forms of resilience, namely the ability to cope with employee stress (individual resilience) and behaviour at workplace that is resilient (employee resilience), show that individual and employee resilience are related, but are two different constructs. The use of measurements with a different context from the initial one can be done if the scale has been validated as a generally accepted measurement.

In addition, the results of the review show that some studies in work contexts that have used measurement scales that are not in the work context of previous researchers are based on the concept of resilience taken in his research. For example, Dai, Zhuang and Huan (2019) use the ER -89 measurement scale, based on its definition of resilience as the capacity for recovering from negative emotions and adjusting to a constantly changing environment. This definition fits the ER-89 measurement context which measures the individual's characteristic level of ego-control. Likewise, Salminen et al. (2019), uses a resilience scale by Hardy because the measurement of employee resilience focuses on the most stressful forms of adversity.

Limitations and Recommendations for Future Research

The literature review presented here certainly has some limitations. First, the review only focuses on results of the studies that have been published in the form of journals in the Scopus and Proquest journal databases published until November 2019. A review of research on employee resilience in a more diverse form and from other sources will provide a more comprehensive understanding of the role of employee resilience and its development in the organisation. Second, the review is limited to empirical quantitative research, excluding empirical qualitative research. By looking at qualitative research it is possible to obtain deeper results regarding the role of employee resilience both as a personal capacity and as a resource that can be developed. Future research can also use two empirical qualitative studies or mixed quantitative and qualitative research models to get more optimal results on employee resilience. In addition, the present study only discusses the resilience of employees as individuals in the organisation. Team resilience in the organisation has not been discussed yet. Future research can enrich the discussion of resilience in organisations from the point of view of developing team resilience. As stated by Losada and Heaphy (2004) a high level of individual positive emotions is related to the size of social resources as measured by the level of relationship between team members. Furthermore, multilevel research from employees as individuals and team resilience will also be necessary in the development of resilience in the organisation.

Conclusion

Employee resilience has an important role in the organisation. Several studies reviewed in this article, have examined employee resilience as antecedents (7 articles), mediators (5 articles), moderators (3 articles), and outcomes (10 articles). As an antecedent, resilience is a resource that will improve work attitude and employee performance. As an outcome, the development of employee resilience is strongly influenced by leadership and social support. Meanwhile, there has not been much discussion about the role of employee resilience as a mediator and moderator.

In terms of variables in the workplace, human resource practices, mental health, personality, and learning, have not been discussed intensely. It can be used as the basis for the organisation to increase the important variables needed by the organisation, as well as the organisation's efforts to increase the capacity of employee resilience and efforts to develop it.

Measurement with work context that can still be developed and become an opportunity for further research, and it can also be considered to use other measurements that adjust to the work environment, which can be different whether influenced by the nature of the organisation and/or cultural conditions.

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