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Abstract

The unprecedented complexity and unpredictability of the current business scenario- amplified by the impacts of COVID-19 pandemic– require employees to constantly learn new skills and new ways of performing their job. Over the past decades, the construct of learning agility has attracted considerable attention from human resource professionals and consultants interested in talent identification. Organizations have then incorporated the construct into their model of high potential selection and leadership development, and the term is becoming embedded into the talent management lexicon. The specific contribution of the current systematic review is to provide a rigorous critique of the existing literature about learning agility and its applications to talent management, focusing on definition, measurement and operationalization of the construct. In addition, the relationships between learning agility and other talent management constructs have been also investigated. A literature search on Scopus, Web of Science, and PsycInfo databases was performed. The review process has followed the international PRISMA statement guidelines. The initial search identified 250 titles. 52 studies were assessed and 10 empirical studies (qualitative and quantitative) were considered eligible. Despite the extensive usage of learning agility in organizations, the academic community only recently has become interested in studying the construct. TM research reinforced the importance of learning agility as a key indicator of potential, highlighting learning and growth competences as central components of potential. Nevertheless, a scientific approach to the concept remains still limited. Limitations, practical implications and directions for future research are also discussed.

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Keywords: learning agility, talent management, systematic review, high potential, talent, learning culture

Implications to consulting psychology. Over the past decade learning agility has been extensively used in organizations in talent identification. The current review provides a rigorous analysis of the literature about learning agility and its application to talent management. A scientific approach to the construct remains still limited and psychometric research also is imperative. Investigation on learning agility is beneficial for individuals and organizations to better deal with change and unpredictability of working environment.

Introduction

The unprecedented complexity of today's business context- marked by globalization, technology, and socio-economic changes – even increases the necessity to focus on attracting, recruiting, developing, and retaining talent to navigate these challenges. The COVID-19 pandemic amplified these dynamics, creating disruption unlike anything experienced in the past, and requiring employees to learn new skills and new ways to perform their jobs (Kniffin et al., 2021). Workers need to be increasingly adaptable, versatile and tolerant of uncertainty to operate effectively in these changing environments (Kaiser, 2020; Nelson, 2018; White & Shullmann, 2010). To succeed, companies need to solve ambiguous problems, being agile and innovative to respond quickly to competitive pressure and to be able to thrive despite the global crisis (Pulakos et al., 2019).

Earlier research has revealed the importance of employee learning as a prerequisite to fine-tune one's expertise and to cope with rapid competences obsolescence (Van der Heijden et al., 2016). As organizations become more complex and dynamic, individuals' ability and agility to learn from experience become more important: knowledge and skills of employees are to be constantly developed, in order to be in line with emergent changes (De Meuse, 2017).

Recently, the concept of *learning agility* has attracted considerable attention from human resource professionals and consultants interested in talent identification and management (De Meuse, 2017; Lombardo & Eichinger, 2000). Organizations today are increasingly focused on talent as strategic asset and

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competitive advantage for achieving business success; consequently, talent management (TM) has become a topic of considerable debate in the academic literature and a central element of managerial discourse and organizational practices (McDonnell et al., 2017).

Lately, organizations incorporated the construct of learning agility into their model of potential selection and development programs, and the term is fast becoming embedded into the lexicon of TM (Rotolo et al., 2018). Learning agility has been defined as an application-oriented construct, originated from the attempt to address to a specific need and problem relevant to practitioners and organizations (Neubert et al., 2015); hence, whereas the construct has played a significant role in the practitioner world for many years, the academic community only recently has become interested in studying it.

Recently, several scholarly articles have been published examining the theoretical and empirical support for it as an important determinant for high-potential talent (Arun et al., 2012; De Meuse, et al., 2010; DeRue et al., 2012a; Mitchinson et al., 2012). Nevertheless, the scientific support of a direct linkage between learning agility and leader success seems to be scanty (De Meuse, 2019; De Meuse, 2017; DeRue et al., 2012b; Hezlett & Kuncel, 2012).

Learning agility

The theoretical basis for learning agility is founded on the long tradition of the experiential learning theory that defines learning as the major and basic process of human adaptation, involving individuals and environment in a cycle of synergetic transactions transforming experience into knowledge (Kolb et al., 1986; Kolb & Kolb, 2009). Further studies on executive leadership and on the reasons of career derailments reinforced the importance of learning from experience as differentiating factor in the way of approaching new and challenging situations. In contrast, derailed leaders were found to be unable or unwilling to change and adapt, resistant to admit mistakes and heavily relied to the limited set of skills developed early in their career (De Meuse, 2017; Lombardo & Eichinger, 2000; McCall, 1994).

In 2000, the concept of *learning agility* was coined and introduced by Lombardo and Eichinger within the scope of their research on leadership potential. The concept was defined as “the willingness and ability to learn from experience and subsequently apply that learning to perform successfully also under first-time, tough or different conditions” (Lombardo & Eichinger, 2000, p.323).

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The authors theorized that potential involves learning new skills to perform in novel situations. Coherently, a four factors model was defined, describing different components of learning agility (Lombardo & Eichinger, 2000, p. 324) as follows:

1. *People Agility*—Describes people who know themselves well, learn from experience, treat others constructively, and are cool and resilient under the pressures of change.
2. *Results Agility*—Describes people who get results under tough conditions, inspire others to perform beyond normal, and exhibit the sort of presence that builds confidence in others.
3. *Mental Agility*—Describes people who think through problems from a fresh point of view and are comfortable with complexity, ambiguity, and explaining their thinking to others.
4. *Change Agility*—Describes people who are curious, have a passion for ideas, like to experiment with test cases, and engage in skill building activities.

The original four factors model has changed over time, hand-in-hand to the expansion of learning agility as a leadership assessment. Over the past two decades, new definitions of the concept and different models have been proposed by the researchers.

The first integration to the original four factors model was the addition of the *self-awareness* as fifth dimension, conceptually defined as “the depth to which individuals know themselves, recognizing their skills, strengths, weaknesses, blind spots and hidden strengths” (De Meuse et al., 2017). In a second time, two additional facets- feedback responsiveness and environmental mindfulness- were incorporated into the previous learning agility model and as a result a seven dimensions model of the construct was proposed (for a full review see De Meuse et al., 2017).

In parallel with these extensions, a new definition of the construct was introduced by De Meuse and colleagues (2017) as “the ability to learn from experience, and then the willingness to apply those lessons to perform successfully in new and challenging leadership roles”. The definition was very similar to the one proposed by Lombardo and Eichinger (2000), nevertheless a focus on new and challenging situations to deal with was then integrated, specifying leadership as the target role for learning agility.

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Beside these broad conceptualizations of learning agility, DeRue and colleagues (2012a) introduced a distinct approach to the construct, primarily based on two specific components: speed of learning and cognitive flexibility. With reference to the distinction between learning agility and learning ability, a new definition of the concept was proposed from the researchers as “the ability to come up with quickly in one’s understanding of a situation and move across ideas flexibly in service of learning both within and across experiences” (DeRue et al., 2012a, p.62).

Following this narrower definition, learning agility is not equivalent to individual ability to learn, but rather is one component of this ability. Based on this framework the authors developed a dynamic model of the construct recognizing: a) individual differences (goal orientation, cognitive ability, openness to experience); b) cognitive (cognitive simulations, counterfactual thinking, pattern recognition) and behavioral processes (feedback seeking, experimentation, reflection); c) contextual and environmental factors (types of experience, culture and climate for learning); d) outcomes and effects of learning agility in terms of learning in and across situations and positive performance change over time (DeRue et al., 2012a).

Based on this dynamic model, learning agility is situated into a broader nomological network, including a) goal orientation -as the individual propensity to pursue goals related to learning and mastery (learning goal orientation) or versus to performance and rewards (performance orientation)-, b) cognitive abilities – defined as an individual difference in information processing capacity - and c) openness to experience – defined as the extent to which individuals are broad minded, curious, imaginative and original (De Meuse et al., 2010; DeRue et al., 2012a; Vandewalle, 2012).

Learning agility has been also identified as an example of meta-competency in term of an individual attribute that is prerequisite to the development of other competencies (De Meuse et al., 2012; Meyers et al., 2013). Competencies have been defined as “measurable human capabilities required for effective performance” (Hoge et al., 2005; p.511) and they are commonly assessed in the context of leadership development and promotion decisions. It has been argued that the acquisition of competences gets influenced by higher-level competencies, referred to as meta-competencies (Briscoe & Hall, 1999). Following this approach, learning agility is a meta-competence that facilitate individual learning, adaptability and development (Meyers et al. 2013).

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The theoretical underpinnings of learning agility may be also linked to the adaptive performance model that defines *adaptive performance* as the employees' capability to adapt to rapidly changing work situations (Hesketh & Neal, 1999). Adaptive performance has been identified as a multidimensional construct, consisting of different dimensions, among which the ability of learning new tasks, technologies and procedures has been recognized as an important predictor of the ability of developing appropriate behavioral responses to unpredictable working situations (Pulakos et al., 2000; Pulakos et al., 2002). Several studies have examined the relationships between learning agility and adaptive performance, discussing possible overlapping of the two constructs (Wang & Beier, 2012) and analysing predictive power of learning agility (Hezlett & Kuncel, 2012; Pulakos et al., 2002;).

In conclusion, the concept of learning agility remains multidimensional, within a broader nomological network of related constructs (i.e. learning goal orientation, openness to experience, cognitive abilities, adaptive performance) where definitional boundaries and its theoretical distinctiveness and unicity remain to be further investigated (Rotolo et al., 2018; De Meuse, 2017).

Learning agility and talent management

Although there is not common consensus in literature, TM can be described as the activities and processes that involve the systematic attraction, identification, development, engagement, retention and deployment of those talents, which are of particular value to an organization to create strategic sustainable success (Gallardo-Gallardo et al., 2020).

Two primary streams of literature dominate the current TM scholarship: *management of talent*, focusing how organizations attract, recruit, retain and reward high performers and *the talented individuals* focusing on what constitutes talent and behavior of talented individuals (McDonnell et al., 2017).

In TM theoretical framework, Human Capital theory emphasized talent management as an investment in employees' development, education and training (Becker, 1964; Collings, 2014). The central assumption of this theory is that investing in human capital provides economic value and competitive advantage to the organizations. Individual workers have a set of skills, abilities and knowledge which they can improve and accumulate through training, education and job experiences. Additional factors such as

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personality, motivation and dispositional attributes have also been argued as key elements to be included when depicting human capital (Ployhart et al., 2014).

In TM research, learning agility has been investigated and analysed particularly in relation to potential designation and talent development process. In work environment *potential* has been referred to individual qualities (characteristics, motivation, skills, abilities and experiences) to effectively perform and contribute in broader or different roles in the organization in the future (Silzer & Church, 2009). However, often the organizations rely on past performance reviews to measure potential, using organization-specific measures that are strongly biased by past performance, then contradicting the definition of potential as the individuals' ability to grow and develop in the future for a group of possible positions (Silzer & Church, 2009).

Recent reviews reinforced the importance of a learning component to high potential identification as an essential dimension for growth and development in the career path (Silzer & Church, 2009; Meyers et al., 2013). In line with latest theoretical approaches conceiving potential in a future and long-term perspective, learning agility has been recognized as a key indicator of potential, emphasizing the growth and learning competence as central components of potential- as opposed to the short-term perspective of potential, traditionally based on performance indicators (Finkelstein et al., 2018).

In this framework, learning agility has been identified as one of the more promising constructs for a TM research focusing the individual talents as the unit of analysis (McDonnell et al., 2017). Learning agility may help to disentangle the relation between performance and potential, increasing the prediction of employee potential over and above the standard prediction by job performance (Eichinger & Lombardo, 2004; Lombardo & Eichinger, 2000).

Because of the increasing body of literature on learning agility, a literature review on the evolution of the construct (De Meuse, 2017) and a meta-analysis study on the relationship between learning agility and leader success have been recently published (De Meuse, 2019). The review focused on the historical roots of the construct and on its measurement in relation to leader performance and career success (De Meuse, 2017). Moreover, several systematic reviews on TM evolutions and main challenges related to potential construct and measures have been conducted (Bouland van-Dam et al., 2020; Gallardo-Gallardo

et al., 2015; McDonnell et al. 2017). Learning agility has been mentioned as relevant construct from a theoretical point of view, for its connection to employee assessment framework of TM (Gallardo-Gallardo et al., 2015), where the focus tends to lie on identifying leadership talent. These reviews have significantly contributed to stimulate the scholarly interest and research exploring the construct of learning agility, nevertheless there is a dearth of specific reviews addressing learning agility in the context of TM, including process of identification, development, engagement and retention of high potential.

Recently, several journals and authors recommended an extensive adoption of more structured methods for conducting and reporting systematic literature reviews in the work and organizational psychology field (Daniels, 2019; Hodgkinson & Ford, 2014; Schalken & Rietbergen, 2017). According to these recommendations, we conducted a systematic review on learning agility and its application to TM, filling the existing thematic and methodological gap. The term systematic review refers to approaches that collate and synthesize available research on a pre-defined research question that fits pre-defined eligibility criteria (Daniels, 2019). Systematic reviews aim at minimizing bias in studies' selection using explicit and rigorous methods to find, screen, classify and summarize findings.

To the best of our knowledge, this is the first systematically-conducted literature review aiming to: 1) analyse how learning agility has been defined and conceptualized in talent management practice; 2) investigate different operationalisations and measurement of learning agility in TM practices; 3) analyse the relationship between learning agility and other TM constructs (either individual and contextual-environmental). Implications for organizational practice and suggestions for future research will be also discussed.

Methods

Search strategy and data extraction

The review was conducted and reported in accordance with the international Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement guidelines (Moher et al., 2009). The PRISMA framework is an evidence-based approach to accurately and reliably report findings from articles for a systematic review. The PRISMA format has been used for the reporting to ensure transparency and

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reproducibility of the analysis and to minimize bias in papers selections. The primary search of literature was conducted on three public databases: Scopus, Web of Science and PsycINFO. Relevant articles were identified on September 2020 and the year 2000 was selected as the starting point, on the basis that it's commonly cited as the date in which "learning agility" was coined by Lombardo and Eichinger. Consequently, the Lombardo and Eichinger (2000) study was considered as seminal work and it was not included in the review.

Due to common overlapping, different conceptualizations and interchangeability of the key terms related to talent management and high potential the query applied was a combination of following strings: "learning agility" AND "talent" AND "high potential" AND "talent management" AND "talent development". A reference management and bibliography-creating software (EndNote Web) were used to support the review process. After the electronic search was completed, two reviewers (RM, IS), independently performed the screening of the records retrieved, starting from the titles considered potentially relevant. The records considered eligible were screened by means of abstract reading; papers without abstracts were automatically excluded. Finally, the selection by full text of the retrieved records was conducted to identify papers relevant and informative to the review. Doubts and concerns about inclusion and exclusion criteria were resolved by discussion and consultation among the authors.

Inclusion and exclusion criteria

The objective of the review was to identify empirical studies addressing learning agility and its application to talent management. Peer reviewed, English language scholarly journals were used as key filters in the research. Limitations to document type were adopted: editorials, conference paper, monographs, books, book chapters, reviews and unpublished works were not considered for the analysis. With reference to the grey literature, doctoral dissertations and white paper have not been included.

No limitations to methodology were adopted: both qualitative and quantitative studies were considered eligible and relevant to the present review. Publications mentioned the term "learning agility" only as generic reference without a further discussion and analysis were excluded.

Articles were included in the analysis if:

- they specifically addressed learning agility as psychological construct in the workplace context;

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- they analyzed and investigated learning agility in relation to talent management and development practices;
- they used employee samples, therefore nonemployee samples as clinical samples, students/teachers, clergy, sport teams were excluded from the search strategy;
- abstracts were available.

Results

The initial search yielded 250 titles. After removal of duplicates a total of 108 records were identified which were subsequently screened for inclusion based on title and abstract content (see PRISMA Flow diagram figure 1). Following the second screening phase, full articles were accessed for the remaining 52 studies and subsequently reviewed with regard to the inclusion criteria (i.e., research focus on learning agility and its operationalization in talent management, document type, and sampling). The final data set consisted of 10 empirical studies. Primary reasons for excluding the articles were: a) studies that contained a generic reference to learning agility without further analysis and investigation; b) theoretical papers; c) studies that reported a research focus on other TM constructs (i.e. engagement, retention, organizational development). As for the research design, the review considered: 5 quantitative research studies, 4 qualitative research studies, 1 mixed-method study.

The main results have been reported based on the objectives of the review, furthermore an analysis of temporal distribution, geographical structure, research design and setting of the studies has been drawn up. About the evidences obtained by the publications, for each article included in the review, different kind of information were also extracted: author, year, country, subjects/setting, analyzed variables, measures, results as well as study design/data analysis. (See Table 1)

Figure 1 Flow diagram of records identified, screened and included in the systematic review according to Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) reporting guidelines

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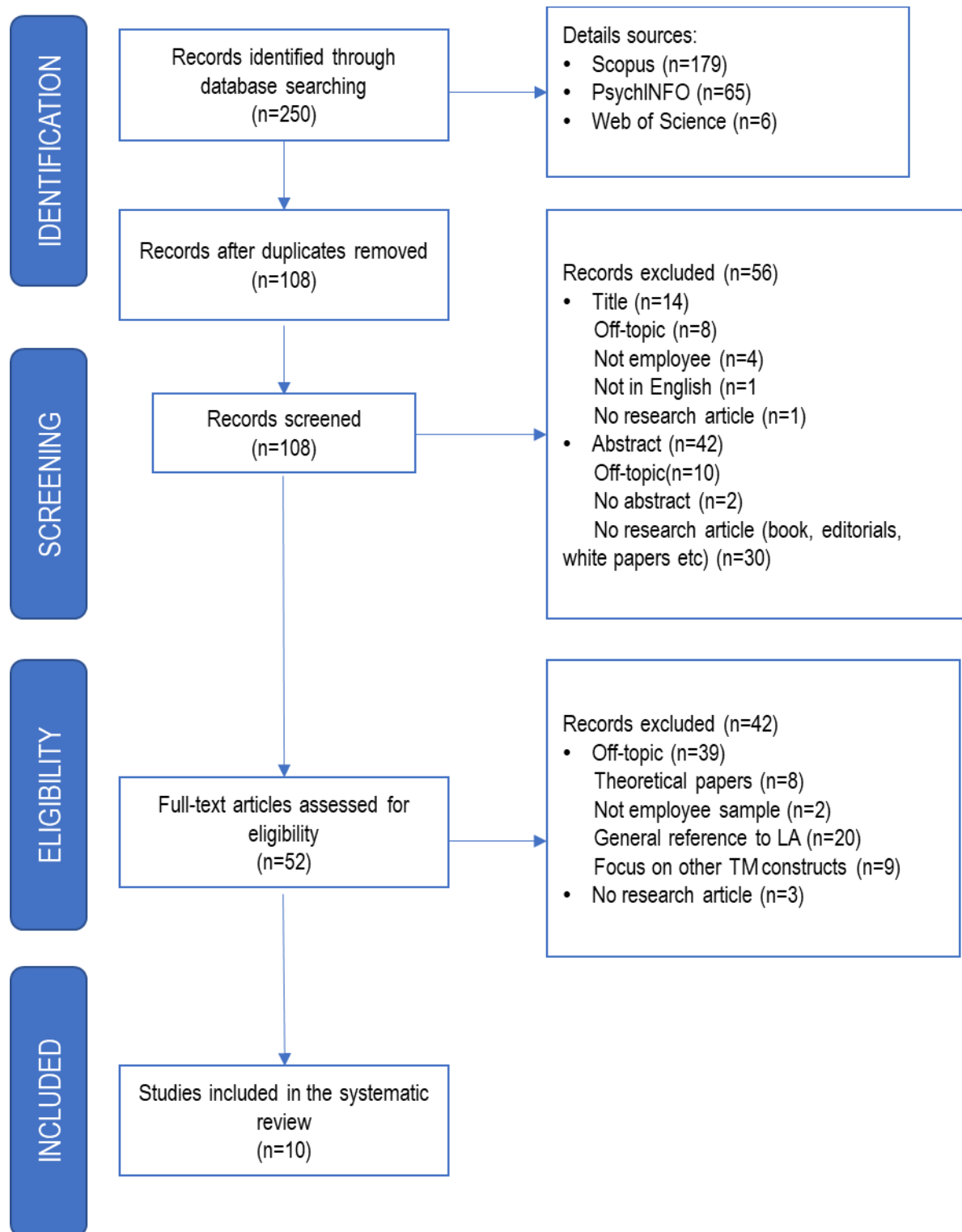


Table 1 - Results of the studies included in the systematic review

Author (year)	Country	Subjects/Setting	Analyzed Variables	Measures	Main results	Study design and Data analysis
Greer & Virick (2008)	USA	27 HR Professionals from 25 organizations	Organizational practices and competencies for incorporating diversity with succession planning	semi-structured interviews	Definition of a feedback loop model. Learning agility is identified as relevant to overcome the negative bias in performance evaluation for minorities.	Qualitative study and data analysis based on analytical approach (King, 1994; Miller & Crabtree, 1992)
Dries & Pepermans (2012)	Belgium	<p>Study 1 - 4 Senior practitioners; 3 Senior academics of HRM field and 32 subject matter experts (students of a Master in IO Psychology and senior HR professionals)</p> <p>Study 2 - 179 managers (top managers, line and HR managers)</p>	<p>Study 1 - Criteria for the identification of Leadership potential Model Dimensions</p> <p>Study 2- Degree of consensus on the model in a sample of practitioners on criteria identified in Study 1</p>	<p>Study 1- Focus group technique, Q-sort and MDS analysis (Borg&Groenen, 1997)</p> <p>Study 2 - Online survey developed by author</p>	<p>Study1- Definition of two dimensional Leadership model consists of four quadrants: Learning agility is a quadrant consisting of three factors: Willingness to learn; Emotional Intelligence; Adaptability</p> <p>Study 2- correlation analysis of all quadrants and factors of the model correlate at $p < .01$ level. About Internal consistency Coefficient Alphas were .60 above all quadrants and factors. ANOVA did not find any significant differences between the three group of practitioners as concern the criteria in potential assessment.</p>	Mixed (quantitative and qualitative study)

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Dries, Vantilborgh & Pepermans (2012)	Belgium	<p>63 supervisors as raters (36 middle managers; 10 line managers; 9 senior managers; 8 executives)</p> <p>32 ratees as high potential (6 non managerial level; 7 line managers; 12 middle managers; 6 senior managers)</p> <p>31 ratees as no-high potential (23 non managerial level; 4 line manager; 3 middle managers; 1 senior manager) of seven Belgian organizations (financial consulting, distribution, ICT and telecom industries)</p>	<p>Factual data provided by HR archive (i.e. identification as high-potential, career and functional variety);</p> <p>Learning agility rated by supervisors;</p> <p>Job Performance On the job learning</p>	<p>Choices Questionnaire (Lombardo & Eichinger, 2000)</p> <p>On the job learning Scale (Spreitzer et al. 1997)</p> <p>Job Performance</p>	<p>Cronbach alpha (*) values were very high across the overall data set (0.98 for total score, 0.96 for mental agility, 0.95 for people agility, 0.92 for change agility and results agility).</p> <p>learning agility is a better predictor on being identified as high potential that job performance (odds ratio 18.17)</p> <p>Career variety was found to be positively related to learning agility</p>	<p>Quantitative study - cross-sectional with a control case design. Data analysis through hierarchical logistic regression with bootstrapping and hierarchical multiple regression</p>
Dai, De Meuse & Tang (2013)	United States	<p>Study 1- 101 managers</p> <p>Study 2 - 83 district sales managers</p>	<p>Study 1 - Learning Agility (LA) and two Indicators of career success: CEO proximity and Total Compensation</p> <p>Study 2- Learning Agility (LA) and Career Growth (promotion rate and average annual salary increase)</p>	<p>Study 1 - viaEDGE instrument by Korn Ferry; Leadership Competence (proprietary model)</p> <p>Study 2 - viaEDGE instrument by Korn Ferry</p>	<p>Study 1 - LA was significantly correlated with: (a) CEO proximity ($r=0.25$, $p<0.05$) and total compensation ($r=0.38$, $p<0.10$). Observed a positive relationship between LA and ratings of leadership competence. LA was significantly related to boss ratings of leadership competence ($r = 0.29$, $p < 0.01$).</p> <p>Study 2 - LA was significantly related to career growth trajectory.</p>	<p>Quantitative study</p> <p>Study 1 - cross-sectional Data analysis with correlation and hierarchical regression analysis</p> <p>Study 2 - retrospective</p>

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					High LA individuals were promoted more often ($r=0.44$, $p<0.01$); received higher salary increases ($r=0.35$, $p<0.01$) than low LA individuals over a period of ten years.	
Church & Rotolo, Gint her, & Levine (2015)	USA	n.80 Senior Responsibles of high potential and executives TM	Definitions of potential; specific domains being measured; post assessment outcomes	online survey (15 items)	Performance is the most commonly applied criteria for identifying high potentials. Learning ability/agility has been reported as one of the most common domain assessed (56% for HiPo and 51% for senior executives)	Qualitative study
Bennett, Ver wey & van der Merwe (2016)	South Africa	2 samples of n. 6 executive leaders of 2 South Africa companies	Leader executive capability developed through their lived experience of uncertainty	Semi-structured interviews	Five components were identified as constituting the capability for uncertainty: a sense of positive identity, acceptance of uncertainty, effective sense-making, learning agility and leadership practices. A new definition of Learning agility has been presented	Qualitative study- Cross sectional and retrospective based on Interpretative Phenomenological Analysis (Smith et al. 2009)

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Glassman & Withall (2018)	United States	17 nurse managers and related nurse directors	Learning Agility;(LA) Performance/Potential Matrix ; Annual performance review	viaEDGE instrument by Korn Ferry; Performance/Potential Matrix PPM Annual performance review	LA scale EFA >0.3 and internal consistency cronbach alpha 0.709. Average of the five Learning Domains is significantly correlated to Performance rating (r=0.63, p<0.01) and to PPM score (r=0.5, p<0.05)	Quantitative study - Cross-sectional data analysis. Factor analysis and correlational analysis
Saputra, Abdinagoro & Kuncoro (2018)	Indonesia	67 senior managers and directors (ICT, manufacturing, construction, media, banking and service)	Organizational Learning; Learning Agility;(LA) Work Engagement (WE)	Organizational Learning Questionnaire (OLC) (Rebelo Gomes, 2011) Learning Agility Self-assessment (LAS) (Gravett & Caldwell, 2016) Utrecht Work Engagement Scale UWES-17 (Seppälä et al, 2009)	Learning culture has an indirect effect on WE but a direct impact on LA. LA has a positive effect on WE. LA plays a mediating role in the relationship between WE and learning culture.	Quantitative study - exploratory research. Data analysis through Structural equation Model
Jooss, McDonnell & Burbach (2019)	Ireland	73 senior organisational leaders of multinational hotel corporations	understanding of talent and TM concept; the development of talent strategies and criteria applied to identify talent	semi-structured interviews	Learning agility was the only indicator exclusively linked to the dimension of potential, and not to performance. Potential is commonly associated to the ability to grow.	Qualitative Study and multilevel case study - Thematic analysis based on Braun & Clarke (2006)

Analysis of publications: temporal and geographical distribution of publications

Looking at the temporal distribution of reviewed publications, all of the articles were published after 2008 and the majority of these (9 out of 10) were published between 2012 and 2020. As for the geographical structure, 4 studies came from United States, 3 articles from European countries (Belgium and Ireland), 2 from Asia (India and Indonesia) and 1 from South Africa.

Analysis of publications: research design and setting

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The review showed that the empirical research on TM and learning agility is either qualitative and quantitative (including 5 quantitative studies, 4 qualitative studies, 1 mixed study). Quantitative studies are based on a survey or a questionnaire often delivered through a web-based platform (Glassman & Withall, 2018; Saputra et al., 2018) or social media applications (Tripathi et al., 2020). Qualitative studies relied mostly on semi-structured interviews (face to face, by telephone or online) (Greer & Virick, 2008; Joos et al., 2019; Bennett et al., 2016) and online survey based on multiple choice and ranking questions (Church et al., 2015). The mixed method study used a combination of survey and focus-group (Dries & Pepermans, 2012).

Only two qualitative studies specified the methodology applied as a multilevel case study (Joos et al., 2019) and as retrospective based on Interpretative Phenomenological Analysis (Bennett et al., 2016). The majority of the quantitative articles are cross-sectional (Dai, et al., 2013; Dries et al., 2012; Glassman & Withall, 2018; Tripathi et al., 2020) and one study applied either cross-sectional and case-control design (Dries et al., 2012).

Managers have been the most commonly targeted research group in the articles. In 6 studies management participated in the studies, different roles have been involved as top executives, middle/ line managers, sales managers and senior directors. HR representatives were involved in 2 studies, particularly roles of direct supervision and responsibility of high potential and talent management practices of the companies. Professional employees participated only in 1 study but again in combination with managers. Subject matter experts as industrial and organizational psychologists and senior academics in HR field participated in one study. Employees as targeted research group remain under-explored and under-studied.

With reference to research context and sector of industry, five studies involved sample of cross-sector companies (finance/banking, consumer goods, ICT, manufacturing, media, pharmaceutical) mainly selected for their best practices in talent management. Four papers focused their investigation on companies of a specific industry -respectively one article in the health sector, one in IT software development, one in multinational hospitality, one in manufacturing. In one study the industry was not indicated. Only one study involved a public sector company. In general information in the articles about the

size of organizations, country presence, business environment and talent management approach are quite limited.

Learning agility: terms and definitions

With reference to learning agility conceptualizations, the most commonly cited definition was the original one coined by Lombardo and Eichinger (2000) used in n. 9 studies: “the willingness and ability to learn from experience and subsequently apply that learning to perform successfully also under first-time, tough or different conditions. However, 2 studies started from this original definition as initial point and proposed a new theoretical frame as result of their investigation. Additional dimensions and constructs have been integrated to the first model, as eagerness to learn, resilience, dealing with uncertainty (Bennett et al., 2016;) and emotional intelligence (Dries & Pepermans, 2012). One study adopted this recent new conceptualization as updated theoretical framework for learning agility (Jooss et al. 2019). One study explicitly mentioned the dynamic model of learning agility developed by De Rue et al. (2012) as integrative theory to be applied to better focus on individual antecedents and contextual-environmental factors of the construct (Tripathi et al., 2020).

Scales measuring learning agility

Considering the reviewed studies providing a direct measure of the construct, one study (Dries et al., 2012) applied the CHOICES instrument, the first formal measure of learning agility developed by Lombardo and Eichinger (2000). CHOICE is a multi-rater survey of original 81 items-behaviors rated on a 5 point-scale by supervisors or co-workers. The learning agility consists of the four main factors: *mental agility*, *people agility*, *change agility* and *results agility*. Two studies (Glassman & Withall, 2018; Dai et al. 2013) applied the viaEDGE questionnaire: an online self-report evaluation of 83 items, designed to measure overall Learning Agility. It is comprised of five factors, as the original four dimensions identified for the Choices Questionnaire were retained and *self-awareness* was added. The viaEDGE consists of three sections: 1) personality-based items rated on a 5-point Likert scale; 2) biodata items; 3) situational judgment test (SJT) items (De Meuse, 2017). Two studies (Saputra et al. 2018; Tripathi et al. 2020) used the Learning Agility Scale developed by Gravett and Caldwell (2016). This measure it's a self-assessment tool based on the

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classical four facets model of learning agility and it comprises 25 items rated on 5 points scale (6 items each for mental, people, and change agility and 7 items for results agility). Refer to Table 2

The majority of analysed studies relied on self-assessment tools to measure learning agility, therefore considerations about possible bias (social desirability, tendency to under-rate or to over-rate) have to be taken in consideration in the final outcomes. On the other hand, the study applied CHOICES as multirater assessment proceeded with supervisors' ratings for potential, performance and learning agility assessment of the employees, with risk for a halo effect on the accuracy and validity of the assessment (Dries et al. 2012).

Table 2- Scales used to measure the level of learning agility in reviewed studies providing a direct measure of the construct

Scale	Research using a particular scale
CHOICES instrument (Lombardo&Eichinger, 2000) (81 items rated on a 5-point scale) supervisor-rated assessment. On 4 dimensions : mental agility, people agility, results agility, change agility	1 study: Dries et al., (2012)
Learning Agility Scale (LAS) (Gravett & Caldwell, 2016) - original version or short version of LAS self-assessment (25 items rated on 5 points scale: 6 items each for 4 dimensions: mental, people, and change agility and 7 items for results agility)	2 studies: Saputra et al., (2018); Tripathi et al., (2020)
viaEDGE by Korn Ferry; self-assessment tool (53 items on a five-point scale. Learning agility on 5 dimensions . 8 change agility items; 8 people agility items, 8 results agility items, 8 mental agility items, 8 self-awareness items, 13 global items)	2 studies: Glassman & Withall (2018); Dai et al., (2013)

Learning agility and talent management

Based on an in-depth analysis of the aims and research question of each of the 10 articles, three main topics related to the relationship between learning agility and other constructs of talent management were identified: 5 studies analyzed learning agility in the framework of criteria and indicators of high

potential; 3 studies investigated the learning agility's relationships with performance and career success; 2 studies focused on the effects of learning agility on learning culture.

Learning agility: criteria and indicators of high potential

Recent research on talent management practices in top development companies pointed out that performance remains the most commonly applied contextual criteria for identifying high potentials (Church et al., 2015). With reference to the assessment content domains utilized by the companies for high potentials and senior executives' evaluation, learning ability/agility has been reported as one of the most common domain assessed, together with leadership competencies, motivation and drive factors (Church et al., 2015).

Some studies identified learning agility as the only indicator exclusively linked to the dimension of potential, and not to performance (Dries & Pepermans, 2012; Greer & Virick, 2008; Jooss et al., 2019). The study by Greer and Virick (2008) -focused on practices and competencies facilitating the integration of diversity with succession planning- has identified learning agility as a relevant indicator of potential to be integrated in early talent identification to overcome the negative bias in performance evaluation for women and minorities.

Some studies developed specific models of leadership potential to support organizations in talent identification and leadership development (Bennett et al., 2016; Dries & Pepermans, 2012;). The research by Dries and Pepermans (2012) developed a two-dimensional model consisting of four quadrants where learning agility was the second quadrant and consisted of three factors: willingness to learn (actively looking for novel experiences that enhance learning); emotional Intelligence (maintaining a stable self-concept even in stressful or novel situations) and adaptability (being open to change when novel circumstances require it). In addition, the study found that top managers, line managers and HR managers despite their different role and involvement in talent designation, applied the same assumptions and essential criteria in the assessment of leadership potential. The five facets model defined by Bennet and colleagues (2016) was focused on the components of the capability for uncertainty and learning agility was included as specific dimension, together with sense of positive identity, acceptance of uncertainty, effective sense-making and leadership practices. Learning agility was then reconceptualized as a specific competence

area with a clear focus on the willingness and ability to learn from the experience of uncertainty, and to apply this of future experiences of uncertainty.

Learning agility: performance and career success

Several studies investigated the relationship between learning agility and performance in terms of capability of potential prediction for leadership in several fields (Dai et al 2013; Dries et al., 2012; Glassman & Withall, 2018;). Research on nurses found a direct correlation between learning agility assessment and evaluation of potential and performance by nurse directors, providing evidences that the individual assessment of learning agility predicted current performance and potential leadership trajectory in healthcare care setting too (Glassman & Withall, 2018).

The study by Dries and colleagues (2012) investigated the impact of job performance rating and learning agility on being identified as high potential or not, and it found that learning agility was a more effective predictor of being identified as high potential than job performance. Moreover, learning agility was found to be positively related to career variety both in terms of number of organizations worked for and number of job domains experienced by employees.

Some studies analyzed the relationship between learning agility and career success, applying as indicators of success the CEO proximity (hierarchical position in the organization) and compensation. Learning agility was significantly correlated to the progress of career advancement either in terms of CEO proximity and total compensation. In a retrospective study learning agility was found to be significantly related to career growth trajectory: high learning agile individuals were promoted more often and received higher salary increases than low learning agile individuals over a period of ten years (Dai et al., 2013). Furthermore, the study observed a positive relationship between learning agility and ratings of leadership competence.

Learning agility and learning culture

Recent studies explored the relationships between learning agility, learning culture- as contextual-environmental factor- and professional attitudes as turnover intention and work engagement. Learning culture showed having a direct effect on learning agility of employees and it has been identified as an antecedent of learning agility (Saputra et al., 2018; Tripathi et al., 2020). Learning agility also showed a

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positive and significant effect on work engagement, playing a mediating role on the relationship between work engagement and learning culture (Saputra et al., 2018). The study by Tripathi and colleagues (2020) examined the effects of learning culture and learning agility on employees' turnover intention and it found that learning agility negatively influenced the intention to leave the company.

Discussion

The present study adopted a rigorous review of the empirical research on learning agility and its applications to TM, with the purpose of providing a comprehensive critique of the existing literature on the topic. Specifically, the review examined how the concept is defined, operationalised, measured in TM, analysing the relations between learning agility and other constructs in TM practice. In this regard, three main areas were identified: learning agility in the framework of criteria and indicators of high potential; relationships between learning agility and career success; effects of learning agility on learning culture. This offers an opportunity to learn from previous experience, but it is also a useful starting point for new research and organizational practice.

The review showed that, despite the extensive usage of learning agility in organizations for selecting and developing talent and leaders, the academic community only recently has become interested in studying the concept, as indicated by the concentration of publications from 2008, despite the term was coined in 2000. It is possible that as construct derived from the organizational practice, learning agility required some time to be recognized as an objective for the scientific debate. Data showed that beside the well-known dominance of US-based scholars, the research on TM and learning agility was conducted in Europe, South Africa and Asia (India and Indonesia), pointing out an increasing interest in talent designation and development at global level. Another point of attention is the prevalent target involved in the studies. Managers were the dominant research population, including middle managers, executives and HR managers, whereas the rest of professional employees' population remained understudied. Particularly, in studies using proprietary scales of measure of learning agility, this limit might be due to the cost associated with administering the assessment.

Recent research in the frame of adaptive performance indicates that in the current working environment, the ability to be adaptable and flexible to change and uncertainty may be necessary and vital

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for many positions, and jobs in the workforce (Pulakos et al., 2000; Pulakos et al., 2002). Furthermore, these studies pointed out that specific jobs may require different types and components of adaptability and learning ability. Nevertheless, other authors have identified learning agility as a specific meta-competency for leadership roles, distinguishing between positions that require learning agility for high potential leadership positions and those so-called expertise-driven jobs may not benefit from learning agility (De Meuse et al., 2012; De Meuse, 2017).

Additional studies are required to investigate the extent to which learning agility dimensions could be applicable and relevant also for non-managerial roles, clarifying the distinctive components of the construct related to formal leadership roles (for instance leading team, create vision and execute the strategy).

The analysis of different authors' approach showed that definition of the learning agility continued to morph as the theoretical debate evolved. The conceptualization coined by Lombardo and Eichinger (2000) as "the willingness and ability to learn new competencies in order to perform under first time, tough or different conditions", remained the most cited, and it was adopted by more than three quarters of the reviewed literature. However, most of the definitions varying and emphasizing different aspects and dimensions of learning agility as resilience, optimism, eagerness to learn, adaptability, capability for uncertain. Moreover, some studies considered the original definition as a starting point to develop new conceptualizations of learning agility, progressively wider and comprehensive, more resembling potential competence rather than a target concept around learning from experiences as originally conceived (Bennet et al., 2016; Church et al., 2015; Dries et al., 2012; Joss et al., 2019; Rotolo et al., 2018).

Regarding the academic debate on the construct definition, findings of the review pointed out that the reference to the narrower conception and dynamic model of learning agility introduced by De Rue and colleagues (2012a) remained limited in the empirical research. Nevertheless, findings showed that this model allowed a wider focus on antecedents and contextual environmental factors of learning agility, particularly in terms of analysis of the impact and influences of learning agility on culture and climate for learning (Saputra et al., 2018; Tripathi et al., 2020).

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Findings of these studies pointed out the key role played by the organizational context factors such as learning and development climate in promoting and supporting learning agility, with significant effects on individual professional attitudes as work engagement and turnover intention. Our results are consistent with previous studies examining the high potentials' perspectives and reactions to talent identification, in terms of impact on their motivation, commitment, performance improvement and turnover intention (Gallardo-Gallardo et al., 2015; Dries & Pepermans, 2008). Organizations need to make sure that not only performance and learning agility of their talent is high, but also their organizational engagement (Juhdi et al., 2012). Future studies are required to further explore these and other variables that may impact the high potential designation process and the organizational strategies for promoting learning culture and achieving talent commitment.

The review showed as differences in definitions of the construct are also reflected in the tools developed to measure the level of employee learning agility. Considering the reviewed studies, the measurement scales are mainly based on original definition by Lombardo and Eichinger (Dries et al., 2012; Saputra et al., 2018; Tripathi et al., 2020) and/or on De Meuse's broader reconceptualization (Glassman & Withall, 2018; Dai et al., 2013). Many adhered to the original four-factor model, whereas others used a consultant's proprietary definition, and others created their own in-house definitions. Our findings support the definition of learning agility as behavioral-based construct, consisting of a set of behaviors or competences that can be observed and assessed (Swisher, 2013; De Meuse et., 2010). Nevertheless, the cognitive components of learning agility, defined by De Rue and colleagues (2012a) in terms of speed and flexibility, remained understudied.

Reviewed studies applied two types of instrument to measure learning agility: self-assessment tools and supervisors' ratings of potential. Therefore, specific considerations about common bias of self-assessment (social desirability, tendency to over-rate or under-rate) and halo effect of supervisors' ratings have to be taken in consideration in terms of accuracy and validity of the assessment (Dries et al. 2012). Future research needs to further explore the relationship between the learning agility indicator and performance/potential evaluation by supervisors.

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Regarding the career success factors, learning agility has been positively related to career advancement (promotion and salary increase) as well as to ratings of leadership competence (Dai et al., 2013). In line with literature on executive leadership, these findings suggest that managers and executives learn leadership skills primarily from job experience. Therefore, the ability to learn from experience is key to leaders' career success and learning agility may be considered an early indicator of leadership competence (McCall, 1994; De Meuse et al., 2010; Sodikin et al., 2020). Future longitudinal designs might be valuable for further understanding the contribution of learning agility in career success.

We found that learning agility is a well-known indicator of potential, recognized and applied by HR practitioners and managers as a common domain assessed in high potential designation. Several studies showed that learning agility became an increasing part of competency models and talent management frameworks in many organizations (Church, 2015; Dries et al., 2012; Bennet et al., 2016). In all these models, learning agility was redefined as a leadership competence dimension, and other constructs such as emotional intelligence, eagerness to learn, capacity for uncertainty were progressively integrated with it (Dries et al., 2012; Bennet et al., 2016; Joos et al., 2019).

This reconceptualization in terms of competence might have impacted on the progress of its construct clarification: nomological boundaries are still debated and further investigations on individual antecedents of learning agility are needed to differentiate it from other constructs and traditional predictors of high potential identification (i.e. intelligence, personality, learning goal orientation, motivation, resilience). The definition of learning agility as a competence can be connected to the historical debate of *nature versus nurture* about the concept of talent. In line with research regarding the need to develop new and integrated model of potential (Silzer & Church, 2009; Finkelstein et al., 2018), the findings of the review showed that learning agility has been included into the growth dimensions of potential (learning variables and motivation) as a component characterized by a dynamic interaction between fairly stable components and acquired dimensions of potential (Bouland-van Dam et al., 2020; Meyers et al., 2013; Silzer & Church, 2009).

Moreover, some studies stated that learning agility would be malleable and developable through specific job experiences, career variety (Dries & Pepermans, 2012) and organizational interventions (Joos et

al., 2019; Tripathi et al., 2020; Dai et al., 2013). The crucial role played by the organizations in supporting employees in their professional development and growth have also been highlighted. Further research is needed to investigate the extent to which learning agility can be developed, enhanced, and to test whether it is malleable via specific job experiences and interventions (for instance training, coaching, multirater feedback).

The majority of the reviewed studies highlighted the role of learning agility as an indicator of potential in talent designation process, pointing out the added value over other indicators as job performance (Dries et al., 2012; Glassman & Withall, 2018; Greer & Virick, 2008; Joos et al., 2019;). Finally, some studies identified learning agility as one of the key predictor constructs that enable long-term prediction of individual potential in terms of leadership effectiveness (Jooss, et al., 2019, Greer & Virick, 2008; DeRue et al., 2012a) and career trajectories in future roles outside the current area of expertise, with broader responsibilities in terms of leading team (Glassman & Withall, 2018; Dai et al., 2013).

In conclusion, learning agility can be identified as a construct in line with recent theoretical TM approaches conceiving potential in a long-term perspective, as opposed to a more traditional narrow short-term performance-based perspective (Finkelstein et al., 2018; Silzer & Church, 2009; Dries et al., 2012; Bouland-van Dam et al., 2020).

The current systematic review has several strengths. To date, this is the first systematic review addressing specifically learning agility and its application to TM. The adoption of a solid systematic review methodology, in line with PRISMA guidelines, concurs to enhance transparency and reproducibility of the analysis. If systematically conducted, a review's results may also provide conclusions on which researchers may rely on.

The choice of the search terms has taken into account common overlapping, different conceptualizations and interchangeability of the key terms related to talent management and high potential. Having reviewed also qualitative studies allowed to investigate the subjective dimensions and meaning experiences of professionals (i.e. HR, managers, senior academics) at different levels involved in talent definition and identification in the organization. Furthermore, the review enhanced the understanding of theoretical framework of learning agility (reconceptualization as competence;

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overlapping and connections with other dimensions of talent) as well as pointed out the relevance of organizational context factors in promoting learning agility. Finally, suggestions extracted by the reviewed publications are summarised to provide a set of recommendations to improve TM practice. Indications for future research direction are also defined to stimulate scholars' interest.

Limitations

This review is subjected to some limitations. The rigorous methodology we applied and the selection criteria for study inclusion in the review may have restricted the generalizability of our results. In the last two decades the popularity of learning agility has increased dramatically in HR practitioners and consultants with a significant production of materials (i.e. technical/commercial papers, books, conference and white papers) that were not considered in this review. However, it was necessary to obtain a consistent sample of studies, to ensure validity and replicability of the review, and to analyse the scientific state of the literature on learning agility and its application to TM practice. Furthermore, the limited number of empirical eligible studies attests to the fact that the relationship between learning agility and other constructs of TM is understudied in empirical research.

The review has several limitations of the literature. First, the majority of the included studies adopted a cross-sectional design, therefore caution should be used in drawing conclusion based on causal inferences. Data pointed out the need for extending the findings through longitudinal study design, to understand the effect of learning agility over time, extracting both practical and theoretical implications. Longitudinal studies would be helpful in providing a more accurate picture of how performance is influenced by learning agility.

Second, many studies included in the review employed a targeted sample of organizations with strong TM and high potential programs, as well as managers included in talent pool of the organizations. Therefore, findings reported may not be generalizable to all types of organizations. In addition, we found that findings of the research mainly reflected the managers' perspectives, since they were the dominant research population, either as raters and ratees in the studies. The rest of professional employees' population remains understudied. Multilevel approaches are needed to enlarge the understanding of

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learning agility antecedents and outcomes, including the impact of multiple actors in both research design as well as in theoretical frameworks.

Third, most of the reviewed articles offered no or limited information about the typology, size, business contextualization and TM approach of organizations studied. The data illustrated the dominant focus on large, private organizations operating often at global or international level. Consequently, more research on learning agility and TM issues and approaches in small and medium sized, no-profit and/or public organizations would be valuable in identifying the impact of contextual and organizational factors on criteria of high potential identification.

Fourth, the results of the review highlighted that most of the scales measuring learning agility are proprietary, developed by consulting firms. The lack of non-proprietary measures has limited the research to organizations with access to these tools and to selected group of population as managers and executives. Therefore, an important contribution to the learning agility field would be the development and validation of a non-proprietary measure by academic institutions. The availability of this type of instrument would increase the learning agility research, extending the investigation to different targets of employees' population, and ensuring more consistency in measurement across studies overcoming cost limitation and time constraints.

Guidance for future research

Our systematic review stated the progressive research interest on learning agility and TM beyond the U.S- as found in studies in Europe, Asian countries and South Africa. This result brings about the question of whether learning agility means the same concept in other cultures. There may also be differential relationships between learning agility and performance across cultures. Further research should consider cross-cultural differences on learning agility, investigating whether the construct is stable across different cultures.

Future studies should proceed to investigate the empirical relationship between learning agility and talent designation and development, in terms of variables of performance and potential indicators. Furthermore, other investigations should focus on individual antecedents of learning agility to clearly

differentiate it from other constructs and traditional predictors of high potential identification (i.e. intelligence, personality, learning goal orientation, motivation resilience).

Practical implications

There are several practical implications resulting from the studies included in the review. Organizations should clearly identify the dimensions of the targeted leadership potential model as well as the methods and tools to apply in their assessment suite (Church et al., 2015; Dries & Pepermans, 2012). Learning agility measures should be incorporated into their high potential identification and leadership development processes (Dai et al 2013; Dries et al., 2012), particularly as an essential component of the capability for uncertainty (Bennett et al., 2016).

Particularly, HR and heads of TM practices should support an early identification of high potential, based on formal process and standardized assessment potential tools, instead of using potential competence models based on successful leadership profiles that might increase the risk of overlapping potential and performance, and that are often inapplicable to junior staff without any previous leadership experience (Dries et al., 2012; Church & Rotolo, 2013). Organizations should take advantage of an early talent recruiting processes also to improve succession planning and inclusion policies, applying reliable potential indicators as learning agility, useful to overcome the common performance bias affecting minorities and women (Greer & Virick, 2008). In addition, the use of standardized and well validated potential assessment tools may produce a positive attitude of employees toward organizations talent management procedures, increasing perception of objectivity, meritocracy and transparency (Dries et al., 2012; Gallardo-Gallardo et al., 2015).

Future research is recommended to explore how contextual and organizational variables may influence the relationship between learning agility and performance. Particularly, there is a need to explore how organizations can support and develop learning agility of employees and managers, investigating for the quality and efficacy criteria to be defined and measured for different type of interventions (i.e. executive coaching, self-learning) and experiences of uncertainty in career, such as transitions into new roles, on-boarding newcomers to the organisation, change-related projects and specific organisational changes (Bennet et al., 2016; Joos et al., 2019).

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HRM practices might enhance their high potentials career variety and commitment, providing developmental assignments and training to ensure opportunities to enhance the learning agility's dimensions, in terms of learning new skills, building flexibility, and ambiguity tolerance (Dai et al., 2013; Dries et al., 2012; Saputra et al., 2018; Tripathi et al., 2020). Organizations should adopt an internal learning culture, promoting a shift from "training" to "learning" systems to sustain employees in being open and ready to change, with positive effects in terms of reduction of the turnover intention (Tripathi et al., 2020) and increasing of work engagement and motivation (Saputra et al., 2018).

In addition, dedicated training programs should be developed to educate managers about the difference between performance and potential, using quantifiable and reliable indicators of potential. These programs are valuable to reduce the existing conflation between performance and potential and to support the change in TM practice from traditional short-term selection views towards long-term talent planning for broader and more complex roles (Bouland van-Dam et al., 2020; Joos et al., 2019;).

Conclusions

The present review pointed out the need for a better understanding of learning agility as an important individual difference in employee performance, readiness to change and capability for uncertain, with implications in both talent selection and development in a dynamic workplace that is constantly changing.

The implementation of learning agility in talent and leadership development systems has produced a significant number of scale and assessment tools of the construct. However, the lack of consensus in terms of conceptual definition and common theoretical framework have limited the development of robust, valid and comparable psychometric tools. The studies included in the review showed that the empirical research that links learning agility to career success is still limited and highly dependent on commercially developed, and therefore not openly academically accessible scales. The current learning agility concept still lacked conceptual clarity and the existing empirical research offered ambiguous insights related to construct distinctiveness, its theoretical boundaries with other constructs, and consequently its predictive validity. This review suggests that from theoretical and empirical point of view the area of learning agility and its application to TM is still in early stage.

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In this time of unprecedented uncertainty and complexity, the need for identifying and developing agile and adaptable employees has become increasingly important for organizations. Therefore, learning agility has been recognized as one of the main factors of growth and learning, playing a central role of how potential is viewed and assessed in the organizations. The extension of learning agility's investigation to different roles and jobs, including also non-managerial population, may provide greater insights into the construct foundation and its measurement. Furthermore, research projects on distinctive dimensions of learning agility, required by specific roles and jobs, would also support organizations in better differentiating their strategies for the identification of potential. Psychometric research in this field is then imperative to ensure reliable and consistent measure in high potential identification; for this purpose, a stronger collaboration among scholars and practitioners would be necessary.

Learning agility inclusion as key indicator of potential has been recommended as valuable practice in talent designation, suggesting TM practice to move to more growth-oriented potential assessment approaches compared to the traditional short-term performance based. The premise of the seminal work by Lombardo and Eichinger (2000) was that people learn, grow and change across time and their career, therefore the scientific investigation on learning agility may carry on in shedding light on the individual behaviors and competences are needed to deal with change and unpredictability of the working environment. This research will be also beneficial for organizations, providing suggestions on the most effective processes and interventions to be implemented to support and encourage learning and growth of the employees.

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