A systematic literature review on SME internationalization: a personality lens

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Abstract

The importance of the individual decision-maker within the internationalization process of SMEs has extensively been acknowledged in the International Entrepreneurship field. Yet, despite this, the current discourse is mainly limited to socio-demographics, and social and human capital, and does not seem to advance towards the influence and role of, e.g., deeper-level personality aspects on the SME’s internationalization process. Findings are scattered across different fields of research and disciplines, making it difficult to build upon existing knowledge. To address this, we execute a Systematic Literature Review focusing on internationalization, SMEs, and personality, with specific attention for deeper-level personality aspects. Our findings reveal a rather young body of literature which uses a behavioral perspective, and can be subdivided into three overarching research themes: Internationalization Behaviors, Internationalization Initiation, and Internationalization Performance. Our thematic analysis and cross-thematic discussion provide a fertile ground for further studies on the entrepreneur’s deeper-level personality aspects in relation to SME internationalization. In the future research section, we recommend the exploration of alternative behavioral theories, and multi-level and holistic approaches to further explore this promising sub-domain.

Keywords Personality · Small and medium-sized enterprises · Internationalization · Systematic literature review

JEL Classification M160 · L250 · D910 · L260
1 Introduction

The internationalization of Small and Medium-sized Enterprises (SMEs) has been defined as ‘the discovery, enactment, evaluation, and exploitation of opportunities—across national borders—to create future goods and services’ (Oviatt and McDougall 2005, p. 538). It is a complex adaptive and dynamic system incorporating multiple levels of interaction between the entrepreneur, firm, market, and environment (Etemad 2004). Digitization and the expansion of global ecosystems increase the number of enablers and constraints for SMEs pursuing cross-border opportunities at all levels (Reuber et al. 2018).

Our knowledge on SME internationalization has advanced drastically in the last decades, as portrayed in the large number of holistic literature reviews in the International Entrepreneurship (IE) field (e.g., Cumming et al. 2009; Dabić et al. 2020; De Clercq et al. 2012; Jones et al. 2011; Keupp and Gassmann 2009; Kiss et al. 2012; Mainela et al. 2014; Morais and Ferreira 2020; Ruzzier et al. 2006; Terjesen et al. 2016; Zahra et al. 2005). Notwithstanding the acknowledgement of the entrepreneur’s role in the internationalization process, research on the individual seems to revolve around socio-demographics (Keupp and Gassmann 2009; Zucchella et al. 2007), the entrepreneur’s human capital (Cassilas and Acedo 2013; Evers 2011; Rialp et al. 2005; Ruzzier et al. 2006) and her/his social capital (Coviello and Munro 1997; Ellis 2011; Prashantham and Dhanaraj 2010; Yli-Renko et al. 2002). There is a lack of integration of individual influencers beyond these basic characteristics, and research taking on a personality lens struggles to advance (Acedo and Florin 2006; Coviello 2015; Jones and Coviello 2005; Morais and Ferreira 2020; Zahra et al. 2005).

This is unfortunate, because the individual level proved to have an important impact on firm development and performance within the broader entrepreneurship domain (Collins et al. 2004; Frese and Gielnik 2014; Rauch and Frese 2007; Zhao and Seibert 2006). Moreover, recent research shows that particularly deeper-level personality drivers influence SME internationalization (e.g., Handrito et al. 2020). As Coviello remarks, ‘IE research at the level of the entrepreneur focuses largely on what they know and who they know (…) what remains missing is rich insight on who these entrepreneurs driving these international ventures are’ (Coviello 2015, p. 23, italics added). In particular psychological (Handrito et al. 2020) personality mechanisms seem promising avenues to better understand when, why and how international opportunities are recognized and exploited (Mainela et al. 2014). This is exactly what this paper focuses on, by answering the following research question: ‘Which individual personality mechanisms influence the internationalization process of SMEs and how do they influence this process?’ By doing so, we follow in the footsteps of scholars like Zahra et al. (2005) or Bruneel and De Cock (2016), who called for further research on the underlying psychological drivers that explain, e.g., the entrepreneur’s motivations to internationalize and their entry mode selection, respectively.

To address this research question, we suggest that individual-level research in the context of internationalization is currently hampered by a narrow focus in
conceptualization and a lack of systematic synthesis of findings scattered across different fields of research and disciplines. Definitional ambiguity can lead scholars to proclaim a particular subject of research as ‘dead’ (Hunter 2000), as it was the case with personality within the more general entrepreneurship field (Gartner 1990; Mitchell et al. 2002). A Systematic Literature Review (SLR) allows integration and synthesis of findings and perspectives in areas in which the research is disparate and interdisciplinary (Cropanzano 2009). This paper follows this approach and sets out an integrative overview employing a rigorous SLR process. Our goal is twofold: First, we inquire current literature in order to understand which deeper-level personality aspects were researched at the individual-level of analysis and the related concepts employed to explain SME internationalization. Second, we want to understand how individual characteristics, and deeper-level personality aspects in particular, influence internationalization behaviors and the outcomes of these behaviors.

The present SLR adds to current SME internationalization review studies focusing on topics such as information, knowledge and collaboration management (Costa et al. 2016; Zahoor et al. 2020), entry modes (Bruneel and De Cock 2016) and the role of context (Child et al. 2022). While a number of such IE-oriented articles reviewed the entrepreneur’s background, market behavior and way of thinking to explain the emergence of Born-Global (BG) firms (Paweta 2015) or individual-/firm-level International Entrepreneurial Orientation (IEO) (Covin and Miller 2014; Wach 2015), no comprehensive review on SME internationalization and the role of the individual through a personality lens has been published to date.

With this article, we provide at least two theoretical, and one practical contributions. First, from a theoretical point of view, we focus on deeper-level personality aspects, employing a broader definitional lens that goes beyond personality traits (Brandstätter 2011; Rauch and Frese 2007). In doing so, we offer a conceptual foundation that squarely builds on the behavioral approach in entrepreneurship and IE (Aldrich and Martinez 2001; Ucbasaran et al. 2001; Venkataraman 1997; Oviatt and McDougall 2005). Such an approach allows integration of recent developments from entrepreneurship and psychology into the SME internationalization research tradition. Our SLR shows the potential of this approach.

Second, our thematic analysis and synthesis unravels how personality aspects influence the behavioral process of internationalization, by carving out three themes: ‘Internationalization Behaviors’, ‘Internationalization Initiation’ and ‘Internationalization Performance’. Research on SME internationalization has shown that differences in individual characteristics of the business founder-manager can affect firm-level internationalization outcomes at any stage of development, including initiation, as well as successful implementation (Cumming et al. 2009; Gregersen et al. 1998; Jokinen 2005; Verbeke and Ciravegna 2018). Reviews to date have mainly focused on specific firm behaviors (e.g. IEO, see Covin and Miller 2014; Wach 2015) or initiation of specific forms of internationalization such as BG’s (see, e.g., Paweta 2015). The present review enriches our understanding of the individual influence across the behavioral chain of internationalization, revealing micro-processes (such as intentionality and capabilities formation) which underpin different internationalization behaviors, both in the initiation and implementation phase.
Third, for practitioners, the COVID-19 pandemic has amplified the complexity of global entrepreneurship, affecting the way of doing business cross-borders as we know it (cf. Brakman et al. 2020; van Witteloostuijn 2021). As a result, existing knowledge on international business opportunities, entry modes, networks, and institutions might become, at least partly, outdated. With this article, we provide insights to educators, investors, and governmental agencies alike, who can, thanks to our insights on deeper-level influencers such as personal motives, attitudes, believes, and intelligence on SME internationalization, assess and build entrepreneurial competencies for the future via, e.g., tailored training programs (see also Davies et al. 2011).

The remainder of the paper is structured as follows. First, we present our research methodology and search protocol. Thereafter, we provide a description and content analysis of our search result. We organize the analysis of our results around three themes, illustrating the different components of the behavioral chain of SME internationalization. Finally, we identify and discuss cross-thematic current gaps, present overarching future research avenues and acknowledge our study’s limitations in a concluding section.

2 Methodology

The SLR methodology allows answering the research goals by systematically collecting data on specific topics in a documented manner (Tranfield et al. 2003). We execute an SLR, focusing on the entrepreneur’s individual aspects beyond her/his socio-demographics, and human and social capital, and relate these individual aspects to SME internationalization. We specifically opt for a SME focus, given the proven effect of the entrepreneur on company development and performance in such enterprises (Acedo and Galan 2011; Bloodgood et al. 1996; Castaldi 1986; Johnston and Czinkota 1985; Julien et al. 1997; Westhead et al. 2002; Zuchella et al. 2007).

The review search syntax is based on the scholarly accepted definitions in the field of IE and Entrepreneurship of three key words: ‘Personality’ (see Brandstätter 2011; Rauch and Frese 2007), ‘Internationalization’ (see Oviatt and McDougall 2005; Verbeke and Ciravegna 2018) and ‘Small and Medium-sized Enterprises’. We follow in the footsteps of Rauch and Frese (2007) and Brandstätter (2011), and adhere to a comprehensive definition of ‘personality’ as encompassing ‘non-cognitive and non-ability dispositions that affect behavior and performance indirectly’, including ‘biological determinants (such as temperament), broad personality factors (such as the Big Five), motives (such as achievement motive), and generalized attitudes and beliefs (such as generalized self-efficacy) (Rauch and Frese 2007, p. 355). This definition of personality includes, but also moves beyond the traits that can be traced back to the Big Five Model (i.e., Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) (Brandstätter 2011; Costa and McCrae 1992; Digman 1990; Goldberg 1990; John et al. 2008). It also encompasses personality constructs such as entrepreneurial orientation (EO), as well as other individual dispositions that are related to temperament traits that may facilitate or impede individual entrepreneurs’ actions and behaviors (Rauch and Frese 2007).
This comprehensive approach allows us to investigate the individual and his/her identity in the broader sense in the paper, beyond personality traits per se.

We have opted for a broad search of all publications from the past 50 years (from 1969 to 2020) within the Web of Science and EBSCO Host libraries. We decided to do so in order to include a wide spectrum of potentially relevant literatures (Dorn et al. 2016). We selected only empirical articles published in peer-reviewed journals. Because articles in these publications went through a rigorous peer review process (Miller and Serzan 1984), they are generally believed to be of a higher quality than non-journal articles such as book chapters, unpublished works, and conference proceedings (David and Han 2004; Wales et al. 2011), which arguably contain less validated knowledge (Jones et al. 2011; Podsakoff et al. 2005). Furthermore, empirical articles provide detailed information on measurement items of tested variables, allowing us to distinguish personality characteristics from other individual-level constructs, beyond conceptual aggregation. Additionally, we base our analysis of individual/personality and internationalization relationships on a behavioral framework (see Sect. 3.2). One of the important premises of the behavioral tradition is linking ‘models of the firm as closely as possible to empirical observations’ (Argote and Greve 2007, p.338). Hence our choice to review only empirical articles is in line with this review’s analysis approach and other IE scholarly reviews (e.g. Jones et al. 2011) and methodological recommendations (Kraus et al. 2020).

2.1 Search and selection process

An initial exploration of the existent literature reviews in the field of IE has informed the identification of keywords and search terms. Based on the scholarly accepted definitions of the three key words—‘Personality’, ‘Internationalization’ and ‘Small and Medium-sized Enterprises’—we built a search string, whereby the wildcard symbol * was used to broaden the search (see Table 1). In the initial phase, a search within the Web of Science and EBSCO Host libraries using this syntax resulted in 473 and 576 articles, respectively, which, after removing double records, have yielded a total of 1001 articles in 281 journals. These results indicate the breadth of our search, as intended in the methodological approach.

Given our focus on the individual level and internationalization of SMEs, studies not including internationalization as research variable, were excluded. Examples of excluded studies are single-country or cross-country analyses of SMEs with a primary focus on entrepreneurship and SMEs without a relation to internationalization of the firm itself (e.g., Mungaray and Ramirez-Urquidy 2011; Uygur et al. 2017). Furthermore, given that the contextual limitation of our SLR is the SME, studies on internationalization of other types of organizations were excluded (e.g., universities, government, large and very large companies, or multinationals). The articles that did not focus on the individual were out of scope as well. Examples are studies researching constructs such as entrepreneurial orientation only measured at the firm, and not the individual level.

The 1001 articles identified in the initial search were further screened according to the pre-defined inclusion and exclusion criteria presented above. After carefully
reviewing all titles and abstracts, we eliminated 915 articles that did not satisfy our inclusion criteria. From the 86 articles that were selected as eligible for full-text reading, we kept only 68 empirical studies (see also Meuser et al. 2016). Eighteen studies were finally selected after full-text reading. The focus on personality aspects, broadly defined, proved to be the most discerning criterion for selection at this stage, yielding only a 38 per cent acceptance rate. Most excluded articles at this stage focused on individual-level antecedents of internationalization, other than personality characteristics, such as socio-demographic characteristics (e.g. Ali and Swiercz 1991; Laufs et al. 2016; Cerrato et al. 2016) and capabilities (e.g. Loane et al. 2007; Westhead et al. 2001) or constructs such as entrepreneurial orientation researched at firm level, that were not yet excluded based on our first exclusion wave (e.g. De Clerck et al. 2005; Knight 2000). Using the snow-ball technique, we have selected 8 additional articles by applying the same criteria as above. This yielded a final selection of 26 articles that were finally analyzed and synthesized in our SLR (see Fig. 1, The Prisma Flow Diagram adapted from Moher et al. 2009).

2.2 Robustness checks

We took several steps to minimize bias and to increase the validity of the review. Firstly, given that systematic reviews are resource intensive (Borah et al. 2017), the planning and review protocol was developed by a review panel of several researchers

| Table 1 | Search terms |
|---------|--------------|
| Personality | “Emotional intelligence” OR “attitude*” OR “values” OR “openness to experience” OR “conscientiousness” OR “extraversion” OR “agreeableness” OR “neuroticism” OR “Big Five personality traits” OR “Big Five” OR “dynamic traits” OR “locus of control” OR “internal locus of control” OR “self-efficacy” OR “state orientation” OR “action orientation” OR “regulatory focus” OR “risk taking” OR “risk-taking propensity” OR “personal initiative” OR “initiative” OR “hexaco” OR “HEXACO” OR “Honesty-Humility” OR “Emotionality” OR “Dark Triad” OR “Machiavellianism” OR “Narcissism” OR “Psychopathy” OR “orientation” OR “entrepreneurial orientation” OR “attitude” OR “need*” OR “motive*” OR “motivat*” OR “aspiration*” |
| Internationalization | “International*” OR “international entrepreneurship” OR “Internationalization” OR “cross-border*” OR “cross border*” OR “crossborder*” OR “foreign” OR “Internationalize” OR “globalization” OR “global*” OR “Globalize” |
| SME | “Middle-sized compan*” OR “middle-sized firm*” OR “middle-sized organisation*” OR “middle-sized business*” OR “middle-sized enterprise*” OR “medium firm*” OR “medium compan*” OR “medium organisation” OR “medium business*” OR “medium enterprise*” OR “medium-sized compan*” OR “medium-sized firm” OR “medium-sized business*” OR “medium-sized organisation*” OR “medium-sized enterprise*” OR “small firm*” OR “small organisation*” OR “smallcompan*” OR “smallbusiness” OR “small enterprise*” OR “SME” OR “Small and medium-sized enterprise*” |
(in our case, with four members), who conducted the review process over a long period of time (in our case, from September 2017 to February 2020). Secondly, since coding behavior changes both between and within individuals over time, we followed the recommendations by Belur et al. (2018) to conduct regular and systematic inter- and intra-rater reliability tests, especially when multiple coders are involved, to ensure consistency and clarity at the screening and coding stages.

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1 We thank PhD student [name withheld for blind review] for her contribution during the selection process.
3 Results

3.1 Breadth of the research

The reviewed body of literature is rather young: The first studies were published in 2003–2004 and only 26 articles proved eligible for final analysis. Recent calls for papers in this field acknowledge our findings (Barney and Felin 2013; Hisrich et al. 2007; Zahra et al. 2005). Our selection has captured the relevant stream of literature from the fields of International Business and International Entrepreneurship: More than half of the articles were published in journals from these two fields (40% and 18%, respectively). The remainder was spread over journals from other management domains, regional economics, and sector-specific journals, which is indicative of literature fragmentation in this area.

Table 2 provides a summary of the reviewed literature on the basis of the sample characteristics, the method used to collect and analyze the data, main research question, theory orientation and main results of the studies. Personality research can be sensitive to the cultural contexts and value-systems associated with the study’s sample. In order to check the breadth of the research in this respect, we classified the selected articles by the country where the empirical research was performed. Our results show a relatively broad geographic coverage of the empirical research samples. This includes regional clusters in both the Western world (Western Europe—both South and North-Central Europe—and North America) as well as South-America, Asia (and the South-East Asian Pacific region), Eastern Europe, and North-Africa. Noticeably, only two articles engaged in cross-cultural comparison, and only one article included samples from both EU countries and the US. We can conclude that research on personality and SMEs’ internationalization is gaining importance across the world, following the increase in globalization of small enterprises and growing popularity of research on entrepreneurial characteristics worldwide.

In terms of methods, however, the reviewed literature is less diversified: we note that the selected articles are predominantly quantitative, cross-sectional studies. Only 5 out of 26 articles employ qualitative methods such as case studies (4 articles) and qualitative content analysis (1 article). While quantitative mediating approaches proved to be appropriate for researching personality in entrepreneurship (Baum and Locke 2004; Rauch and Frese 2000), process-oriented qualitative studies might offer better specification of the underlying theoretical mechanisms linking individual and organizational behaviors, in line with the behavioral tradition (Cyert and March 1963; Argote and Greve 2007).

3.2 Data analysis

Following recent methodological recommendations for SLRs in fields characterized by knowledge fragmentation (Kraus et al. 2020), we employed coding procedures used in qualitative empirical analysis (see also Miles and Huberman 1994).
### Table 2  Overview of selected articles

| No. | Author(s)               | Sample                      | Methods                                                                 | Main research question(s)                                                                                                                                                                                                 | Theory orientation                        | Main results                                                                                                                                 |
|-----|-------------------------|-----------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Acedo and Galán (2011)  | 110 Spanish exporting SMEs  | Quantitative; Cross-sectional survey Structural equation modelling and partial least squares (PLS) | To examine the relationships that exist among the individual characteristics of decision makers, the export stimuli that determine a decision to initiate export activity and the international behavior of SMEs                                         | Theory of Planned Behavior                | Perception of risks and opportunities in exports influences which stimuli (proactive/reactive) determine a decision to enter foreign markets and affects the subsequent commitment of the SME to its international activities  |
|     |                         |                             |                                                                         |                                                                                                                                                                                                                             |                                           | More proactive individuals have positive perceptions of working in foreign markets than do less proactive individuals                                                                            |
|     |                         |                             |                                                                         |                                                                                                                                                                                                                             |                                           | More proactive stimuli to initiate internationalization are associated with more aggressive behavior of SMEs in international markets, which is reflected in greater involvement (export volume) and commitment          |
| No. | Author(s) | Sample | Methods | Main research question(s) | Theory orientation | Main results |
|-----|-----------|--------|---------|----------------------------|------------------|--------------|
| 2   | Bal and Kunday (2014) | 159 Turkish SMEs (owners) who attended different international fairs in Istanbul, Turkey | Quantitative; Cross-sectional survey; Cluster sampling method; Regression analysis | To examine the role of human capital and entrepreneurial personality traits on the internationalization degree of Turkish SMEs | International Entrepreneurship Theory (Oviatt and McDougall 2005) | Positive relationship between proactivity and the internationalization degree of SMEs No relationship between tolerance for ambiguity, risk propensity of the entrepreneur and degree of internationalization Human Capital traits do have a relationship with degree of internationalization, but weaker results for all 3 variables |
| 3   | Charoensakmongkol (2014) | 129 SMEs in Thailand | Quantitative; Cross-sectional Survey (self-administered questionnaire); Partial least squares (PLS) regression analysis | What is the contribution of business owners’ CQ to the export performance of SMEs, through the mediating roles of two firm-level capabilities: international knowledge acquisition capability and adaptive capability? | Resource-based view (Barney 1991): Upper echelon theory (Hambrick and Mason 1984) | A positive effect of CQ on export performance; this relationship was mediated by the firm’s international knowledge acquisition capability but not by adaptive capability CQ may help SME owners acquire critical knowledge necessary for international business success |
Table 2 (continued)

| No. | Author(s)         | Sample                                 | Methods                           | Main research question(s)                                                                 | Theory orientation                           | Main results                                                                                                                                 |
|-----|-------------------|----------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | Dasi et al. (2015)| 132 Spanish SMEs (industrial region in Spain) | Quantitative Cross-sectional survey Regression analysis | (1) Are managers from exploitative SMEs more path dependent in their internationalization trajectories? (2) Can an SME's explorative orientation affect its managers' intentions to become more path creating when internationalizing and to what extent do slack resources affect this relationship? | Organizational Learning Theory (Levitt and March 1988) | The SME’s explorative orientation plays an important role in management intentionality to internationalize, and that slack resources moderate this relationship; supports an inverted U-shaped relationship between discretionary slack and innovative behaviors. Provides additional evidence for the strategic-choice perspective in which managers are viewed as able to shape the strategic choices of the firm and as responsible for path-creating trajectories |
| No. | Author(s)               | Sample                                                                 | Methods                                                                 | Main research question(s)                                                                 | Theory orientation                 | Main results                                                                                                                                                                                                 |
|-----|------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5   | Eriksson et al. (2014) | 1 Finish successfully operating small global factory; ICT system provider and niche global leader | Qualitative; Single-case study research 12 semi-structured interviews; Triangulation in order to minimize informant bias | The importance of dynamic capabilities (cognitive, managerial, and organizational capabilities) importance for the success of small global factories | Dynamic Capabilities               | All the three levels (cognitive, managerial and organizational capabilities) have significance—none of them would be sufficient alone—and that together they form the dynamic capability needed for the successful management of a small global factory Cognitive capabilities contributing to the success of a small global factories are individual Entrepreneurial Orientation, Cultural Awareness and Global Mindset |
| 6   | Felício et al. (2013)  | 354 Norwegian and Portuguese small firms (EU definition)           | Quantitative Cross-sectional survey Structural equation modeling (SEM)   | To study Global Mindset in different contexts, focusing specifically on entrepreneurs’ global orientation and firm perspectives on the global market, as well as the influence on the internationalization of small firms | Information-Processing Theory (Giaglis and Fouskas 2011; Hitt et al. 2007; Leonard et al. 1999) | Global Mindset and Global Orientation have more relevant effects on the internationalization behavior of Norwegian firms than that of Portuguese firms; |
### Table 2 (continued)

| No. | Author(s)                | Sample                                                                 | Methods                                           | Main research question(s)                                                                 | Theory orientation                                                                 | Main results                                                                                                                                 |
|-----|--------------------------|------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 7   | Felício et al. (2016)    | 526 Portuguese, Norwegian and Lithuanian SMEs                         | Quantitative Cross-sectional survey Structural equation modeling (SEM) | (1) Evaluating autonomously the effects of Individual Global Mindset (IGM) and Corporate Global Mindset (CGM) on firms’ internationalization  
(2) Evaluating the effect of the context on the relationship between individual and corporate GM and their influence on firms’ internationalization | Resource-Based View, The Mindset Theory (Gollwitzer 1990, 1999); The information-processing theory (Giaglis and Fouskas 2011), The Internalization theory (Rugman 2005) | IGM reflects moderately in cognition, and strongly in knowledge and behavior; IGM and CGM have a strong relationship: Managers are relevant as individuals in the firms for their attributes and qualities but are also a relevant part of the firms’ structure and the organization (routines, rules, values, and principles) in internationalization  
The context affects the attitudes and cognition of managers (IGM) |
| 8   | Francioni et al. (2015)  | 165 Italian SMEs (decision-makers) from the mechanical industry       | Quantitative Cross-sectional survey Hierarchical multiple regression | How characteristics of decision-makers influence internationalization strategies within SMEs with a particular focus on the strategic decision-making process (SDMP) 2 dimensions: political and rational behavior | Strategic Decision-Making Process (Harrison 1996) | Significant positive relationship between the need for achievement and political behavior  
A positive connection between risk attitude and both rationality and political behavior |
| No. | Author(s)                      | Sample                                                                 | Methods                        | Main research question(s)                                                                 | Theory orientation               | Main results                                                                                                                                 |
|-----|-------------------------------|------------------------------------------------------------------------|--------------------------------|------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 9   | Game and Apfelthaler (2016)    | 3117 Decision-makers manufacturing SMEs from Canada, engaged in export related activities | Quantitative Cross-sectional survey Binary logistic regression | To determine those factors that affect SME decision-makers attitudes and to explore the degree to which they influence the decision to commit to a more advanced FME mode of internationalization | The Theory of Planned Behavior | Attitude and factors that contribute to the formation of attitudes do affect the internationalization decision-making process: International Experience, International Commitment, Knowledge of Culture (host country), Level of Perceived Benefits affect attitudes towards decision-making behavior regarding advanced entry-modes |
| 10  | García-Cabrera et al. (2016)   | 296 entrepreneurs from Brazil (one of the least developed regions); tourism industry | Quantitative Cross-sectional survey Multiple linear regression | 1) How does the entrepreneur’s perception of the institutional dimensions influence their decision to involve their SME in international operations? (2) What role does opportunity motivation play in the impact of those perceptions on the internationalization decision? | Neo-Institutionalism (North 1990, 2005) | Individual’s perception of the normative and regulative aspects of institutions and the interaction between the two explain the decision to internationalize Opportunity motivation mediates the impact of the normative aspects of institutions (social values that encourage and legitimize high-growth entrepreneurship) on the internationalization decision |
| No. | Author(s)            | Sample                                                                 | Methods                          | Main research question(s)                                                                 | Theory orientation                          | Main results                                                                                                                                 |
|-----|----------------------|------------------------------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 11  | Gundlach and Sammartino (2019) | 323 Australian female businesswomen; two groups: small business owners and employees with strategic decision-making responsibilities | Quantitative Cross-sectional survey T-tests | Personality and capability assessment differences between female business owners and their employed counterparts, and the impact of such traits and assessments on their internationalization | Women’s Entrepreneurship (Holmquist and Carter 2009) | Proactiveness was higher among female small business owners than decision-making employees; decision-making employees unexpectedly reported higher levels of tolerance for ambiguity and management self-efficacy than small business owners. Perceived Barriers to Internationalization: no significant difference business between business owners and decision-making employees, but between international and not-yet international business owners |
| No. | Author(s) | Sample | Methods | Main research question(s) | Theory orientation | Main results |
|-----|-----------|--------|---------|--------------------------|-------------------|--------------|
| 12  | Handrito et al. (2020) | 176 Indonesian SMEs | Quantitative Cross-sectional survey Tobit regression model | The interplay between the implicit Need for Achievement (nAch) and risk perception and impact on SME internationalization | Implicit Needs Theory (McClelland et al. 1989) | The level of the entrepreneur’s nAch in combination with her/his perception of the internationalization risk impacts the SME’s degree of internationalization; —— Implicit need for achievement is positively associated with a challenging task, such as internationalization; The highest level of internationalization is most likely achieved by a highly nAch motivated entrepreneur whose risk perception of internationalization is either very low or very high |
| No. | Author(s)             | Sample                                                                 | Methods                                                                 | Main research question(s)                                                                 | Theory orientation                                                                 | Main results                                                                                                                                 |
|-----|-----------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 13  | Kaur and Sandhu (2013)| 6 born-global SMEs from Malaysia (2010) 2 manufacturing and 4 service firms | Qualitative Multiple-case-study method; Semi-structured interviews and secondary data; Each case firm is profiled and then cross compared following pattern-matching logic and cross case synthesis | (1) To identify the key factors that drive SME born global firms to internationalize their operations at or near inception  
(2) Understand the path of internationalization of born global firms (entry strategies into foreign markets) | Theory of Entrepreneurship, Resource-Based View, Network Theory; Institutional Theory | The role of the founder/manager is central to the founding of a born global firm  
The Entrepreneurial Orientation of founders/managers is particularly salient to BG’s;—Networks are significantly important for BG’s  
Born global firms may skip stages of international development, or internationalization may not occur in stages at all |
| 14  | Kotorri et al. (2018) | 500 Kosovan entrepreneurs from trade, services, and manufacturing sectors | Quantitative Cross-sectional survey Tobit regression model | Incorporating management characteristics and attitudes in an export performance model | Strategic Choice Perspective (Child 1974); Upper echelons perspective (Hambrick and Mason 1984); Melitz model (Metlitz 2003) | Strong support is found for the correlation between export performance and managerial characteristics, namely the manager’s perception of the firm’s past performance and manager’s forward-looking expectation of the firm’s future performances, as well as managerial education and international exposure |
| No. | Author(s) | Sample | Methods | Main research question(s) | Theory orientation | Main results |
|-----|-----------|--------|---------|--------------------------|-------------------|--------------|
| 15  | Kuivalainen et al. (2004) | 513 Finish SMEs involved in export; 45 were Knowledge-Intensive and 468 Not-Knowledge Intensive | Quantitative Cross-sectional survey Linear regression and T-tests | What is the effect of environmental turbulence and leader mindset on international performance in knowledge intensive and traditional firms? | Resource-Based View (Barney 1991) | Knowledge-intensive firms have experienced more intensive international growth than counterparts; Technological turbulence is significantly higher and their leaders put more emphasis internationalization; Leader mindset was not a significant predictor of international performance for Knowledge-intensive firms |
| 16  | Kundu and Katz (2003) | 47 young Born-International firms in the Indian software industry | Quantitative Cross-sectional survey Multiple Regression, OLS Regression | How much do the properties of the organizational emergence affect the export performance of Born-International firms? | The Katz and Gartner Model - Emerging organizations (1988) | Intention is significant at individual but not at organizational level. In the early stages of firm development, owner, not firm characteristics play a pivotal role in performance, especially exports. Firm creators provide a foundation, however, the "glocalization" or the technological innovativeness of the entrepreneur can lead to less export growth in later stages |
| No. | Author(s) | Sample | Methods | Main research question(s) | Theory orientation | Main results |
|-----|-----------|--------|---------|---------------------------|-------------------|-------------|
| 17  | Li et al. (2015) | 683 Chinese Born-Global and non-Born-Global from manufacturing industries | Quantitative Cross-sectional survey T-Tests and Hierarchical Regression | Why some firm can internationalize quickly? How do entrepreneurs’ psychological qualities influence an organization’s behavior and vice versa and determine a firm’s strategy—speed of internationalization? | International Entrepreneurship—Born-Global firm | Entrepreneurs’ psychological qualities trigger their desire to enter foreign markets quickly and propel them to develop organizational capabilities, such as market-specific knowledge, to implement the strategy Organizational capabilities enhance entrepreneurs’ confidence and, thus, drive them to take risks and be proactive in foreign markets The interface between these antecedents is the driving force behind the speed of internationalization |
| 18  | Muñoz-Bullón et al. (2015) | 17.152 nascent entrepreneurs and owner-managers of young firms from the US and the 27 EU countries Global Economic (GEM) | Quantitative Cross-sectional survey Logistic regression analysis | Identification of the Entrepreneurial Orientation associated with the propensity to export for nascent entrepreneurs | Resource-Based View (Barney 1991) | The nascent entrepreneur’s propensity to export is positively associated with both their proactiveness and their new venture’s innovativeness Nascent entrepreneurs’ risk-taking behavior has not been found to significantly affect exports |
| No. | Author(s)                  | Sample                                                                 | Methods                                                                 | Main research question(s)                                                                 | Theory orientation                              | Main results                                                                                                                                 |
|-----|---------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 19  | Muzychenko and Liesch (2015) | 6 Australian SMEs from multiple industries with history of incremental internationalization | Qualitative Case-studies; selection on criteria-based maximum variation purposive sampling | Why an individual entrepreneur perceives international opportunity identification to be a feasible and a desirable activity? | Theory of Planned Behavior                    | Entrepreneur’s psychological proclivity for identifying opportunities for a new international market entry consists of:—The ‘Desire to build a world-class enterprise’: Achievement; Innovation; Cosmopolitanism ‘Passion for cross-cultural encounters’: Passion for cultural learning; Enjoyment of cross-cultural interpersonal relationships; Self-efficacy |
| No. | Author(s)               | Sample                                      | Methods                                | Main research question(s)                                                                 | Theory orientation                     | Main results                                                                                                                                 |
|-----|-------------------------|---------------------------------------------|----------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 20  | Omri and Becuwe (2014)  | 289 managers of Tunisian SMEs from diverse sectors | Quantitative Cross-sectional survey Structural equation modeling | Causal effects of managerial characteristics on innovative behavior of SMEs seeking international market expansion | Upper echelons perspective (Hambrick and Mason 1984) | Personality traits, mental ability, and social networks of managers have a direct impact on a firm’s behavior as it enters the international context. Personality traits (extraversion, agreeableness, conscientiousness, openness) positively enhance innovative behavior of managers seeking to internationalize their products and services; indirect effect by influencing mental ability (Emotional Intelligence and creativity). |
| 21  | Ruzzier et al. (2007)   | 165 internationalized SMEs from Slovenia    | Quantitative Cross-sectional survey Structural equation modeling | Predict the internationalization of SMEs from the entrepreneur’s human capital dimensions: international business skills, international orientation, environmental perception, and management know-how | Resource-Based View (Barney 1991) | International orientation and environmental risk perception predicted internationalization degree, while international business skills and management know-how did not. |
| No. | Author(s)          | Sample Description                                                                 | Methods                                      | Theory orientation                  | Main research question(s)                                                                 | Main results                                                                                                                                                                                                 |
|-----|--------------------|-------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 22  | Sahin and Gurbuz    | 206 SMEs from Turkey with international business activities (i.e., exporting, joint venture, or wholly owned subsidiary modes) from diverse sectors | Quantitative Cross-sectional survey          | Upper Echelons Theory (Hambrick and Mason 1984; Hambrick 2007); Resource-Based View (Barney 1991) | Determine whether the relationship between Entrepreneurial Orientation and international performance is contingent upon CQ of top managers | Metacognitive Cultural CQ, Motivational CQ and the ideal configuration of top manager's CQ moderate the relationship between EO and a firm's international performance. |
| 23  | Sommer and Haug     | 100 German SME executives                                                             | Quantitative Cross-sectional survey          | Theory of Planned Behavior           | What influences SMEs’ decision-makers’ intention—an important cognitive antecedent to behavior—to play an active part in internationalization? | Perceived Behavioral Control, followed by experience and knowledge are of particular relevance for predicting intention. |
| 24  | Stoll and Ha-Brookshire | 107 articles featuring US textile and apparel SMEs owner’s discourses              | Qualitative Content Analysis of articles, case studies, and interviews | Theory of Human Motivation, Maslow (1943) | (1) How do US textile and apparel SME owners describe their motivations for success in their own words? (2) Does Maslow’s theory of human motivation provide a reasonable framework for understanding these motivations? | Being good global citizen was described as self-actualization need for their success. The boundary between personal and organizational lives could be vague for SME owners. Maslow’s theory provided a reasonable framework for describing motivations for success. |
Table 2 (continued)

| No. | Author(s) | Sample | Methods | Main research question(s) | Theory orientation | Main results |
|-----|-----------|--------|---------|---------------------------|-------------------|-------------|
| 25  | Urbano et al. (2011) | 4 case studies of transnational entrepreneurs from Spanish SMEs with different ethnicity (Ecuadorian; Moroccan; Chinese and Romanian) | Qualitative multiple case study design; Selection was based on obtaining the greatest diversity of cases Triangulation with interviews of experts in the field | What and how different socio-cultural factors influence the emergence and development of transnational entrepreneurship (TE) in Catalonia? | Institutional Approach, Institutional Economics (North 1990, 2005) | Role models and entrepreneurial values and attitudes are related to TE’s emergence; — Social networks and immigrants’ perceptions of the entrepreneurial culture and opportunities of the host society are crucial factors for facilitating the TE development; — There is considerable heterogeneity amongst transnational entrepreneurs |
| 26  | Wood et al. (2014) | 188 observations of 47 US SMEs that engaged in a program designed to increase exporting | Quantitative Longitudinal (10 years) Observation of companies actual behaviors Structural Equation Modeling | Examines the managerial motivations behind initiating exporting activities of SMEs through the lens of Expectancy Theory | Expectancy Theory | Expectancy and Valence influence the initiation of exporting International market orientation, resource availability, and affinity to internationalization all influence the components of motivation |
The goal of our SLR was twofold: understanding which personality aspects were researched at the individual-level of analysis, and how personality influences SME internationalization. Hence, in the first phase we coded the individual level of analysis and personality characteristics in three steps:

(a) We grouped the variables employed in the selected articles according to the level of analysis: individual, firm and environment.
(b) We distinguished ‘subjective’ from ‘objective’ individual characteristics (e.g., human and social capital). Inquiring the measurement items of the variables under analysis allowed us to code personal preferences, orientations or cognitive abilities as subjective, and observable characteristics such as number of years of international experience or education as objective individual characteristics.

(c) We coded individual subjective characteristics such as traits (e.g., the Big Five), motives, attitudes, and beliefs as personality, according to the broader personality definition employed in our search and selection process (see previous section). We coded other subjective individual characteristics emerging from the analysis (e.g. perceptions or cultural meta-cognition) as cognition. Although closely related to personality, the latter indicate ‘the mental process of perception, memory, and information processing, which allows the individual to acquire knowledge, solve problems, and plan for the future’ (Hanning 2005, p. 82). This distinction allows us to assess which specific personality aspects have been explored and tested in relation to SME internationalization in the literature, to date.

In the second phase of our analysis, we focused on how personality relates to SME internationalization. In line with IE definitions, entrepreneurial behaviors are crucial in the process of internationalization, and these behaviors are conditioned by individual characteristics: ‘Through the lens of their personal characteristics (…) and psychological traits (…), entrepreneurs observe and interpret the potential of the opportunity (…) to enable internationalization…’ (Oviatt and McDougall 2005, p. 542). The role of personality as an antecedent to situational-specific entrepreneurial behaviors and actions, which in turn affect outcomes (e.g. business creation and success) was also evidenced by a number of meta-analyses of personality factors in entrepreneurship (Collins et al. 2004; Rauch and Frese 2007; Stewart and Roth 2004). Furthermore, scholars in the field of International Business have previously argued that differences in individual characteristics of business founder-manager can affect firm-level internationalization outcomes at any stage of development, including initiation, as well successful implementation (Cumming et al. 2009; Gregersen et al. 1998; Jokinen 2005; Verbeke and Ciravegna 2018). Most recently, Surdu et al. (2021) advocate the revival of the Behavioral Theory of the Firm (Cyert and March 1963) in International Business and propose a behavioral model linking individual and firm characteristics with internationalization behaviors and outcomes of these behaviors at crucial moments during the internationalization process.

Integrating the above insights, we adopted a behavioral approach as framework for analysis. As illustrated in Fig. 2, this approach proposes that individual
characteristics (including personality) affect specific individual- and firm-behaviors, as well as behavioral outcomes. We categorized internationalization variables in our review as either behaviors or outcomes, and distinguished different types of outcomes according to the internationalization process development stage: initiation or performance. About 23% of the reviewed articles focused on internationalization behaviors, while the rest (77%) focused on internationalization outcomes and were equally spread between internationalization initiation and internationalization performance. Acknowledging heterogeneity and process-modelling as salient to the behavioral approach (Argot and Greve 2007; Surdu et al. 2021), we suggest that the set of individual/personality characteristics can vary according to the specific phase of the process. Therefore, we model the different constructs and web of relationships (including individual-, firm- and environment-level moderators and mediators) researched in the literature along the different components of the internationalization behavioral chain, and summarize our findings in three main themes: ‘Internationalization Behaviors’, ‘Internationalization Initiation’, and ‘Internationalization Performance’.

The following section contains our thematic review and critical analysis, including an integrating framework of the extant literature for each theme. The article number (see Table 2: Overview of Selected Articles) is attached next to the variables exemplified in the frameworks, as well as the main theories explaining the relationships involved.

4 Thematic synthesis

4.1 Theme 1: internationalization behaviors

This body of literature investigates the individual and the micro-processes behind internationalization behaviors. At least six out of the 26 articles focus on specific personality and cognitive aspects of the SME’s entrepreneur, and on how the intricate relationship between them impacts behaviors leading to internationalization. The variables as well as the main articles and theories contributing to this theme are illustrated in Fig. 3.

By carving out the personality and cognitive aspects, we could critically identify a large diversity of labels employed by the reviewed articles. Each thematic overview figure contains examples of variables used by the reviewed authors, which we
re-organized according to our analysis framework. We discuss specific concepts and propose conceptual alignment within each thematic section. In so doing, the first theme lays the foundations for the following themes: We deep-dive into specific personality-related dimensions and cluster them around traits, motives, attitudes, and beliefs.

### 4.1.1 Individual-level characteristics

#### 4.1.1.1 Personality traits

Research on personality traits such as extraversion, agreeableness, conscientiousness, and openness (Omri and Becuwe 2014) or tolerance to ambiguity (Gundlach and Sammartino 2019) in relation to internationalization behavior is rather scarce. Comparing women small business owners with their employed counterparts in relation to internationalization behavior, Gundlach and Sammartino (2019) find only weak evidence for differences between the two groups in terms of personality traits. Tolerance for ambiguity, however, proves to distinguish the businesswomen who had already internationalized from those who had not yet engaged internationally. Although limited, these findings point towards the weak explanatory power of personality traits, especially when direct effects on internationalization are concerned.

#### 4.1.1.2 Motives, attitudes, and beliefs

As reflected in our framework (see Fig. 2), motives and attitudes are the predominant personality antecedents to internationalization behavior. In line with McClelland’s motivation theory, the achievement motive has consistently proved to be a predictor of entrepreneurial behavior throughout the entrepreneurship literature (Brandstätter 2011; Stewart and Roth 2007; Zhao et al. 2010). Individuals with a high need for achievement typically get satisfaction from mastering challenging tasks on their own (McClelland et al. 1953, 1989; Slabbinck et al. 2018). Our review re-confirms the importance of individual motives in the IE domain, including the achievement motive. While building on McClelland’s concep-
tualization of the need for achievement (Francioni et al. 2015), the reviewed articles identify a broader set of motives in the context of internationalization.

Muzychenko and Liesch (2015, p. 710) suggest that achievement is just one of the dimensions of ‘the desire to build a world-class enterprise’, and that ‘passion for cross-cultural encounters’ represents another motivational driver. The latter refers to the desire for connectivity with different people and immersion in new contexts (Muzychenko and Liesch 2015). Stoll and Ha-Brookshire (2012) employ Maslow’s Theory of Human Motivation (1943), and conclude that the self-actualization need underpins entrepreneurial aspirations to make a positive impact within the global community and a good global citizen behavior. In line with these findings and McClelland’s motivation theory, we note that, besides achievement, also the needs of power and affiliation might play a role at the individual level, directing the entrepreneurial zest towards distinctive internationalization behaviors.

Next to motives, specific attitudes such as that regarding risk (Francioni et al. 2015), cosmopolitanism (Muzychenko and Liesch 2015) and global orientation. (Felício et al. 2013, 2016) are seen to condition internationalization behavior. Attitudes are acquired through beliefs (Ajzen and Cote 2008), including self-efficacy in cross-cultural interactions, as well as entrepreneurial self-efficacy (Gundlach and Sammartino 2019; Muzychenko and Liesch 2015).

4.1.1.3 Cognition More than half of the articles within this theme propose cognition as an antecedent of internationalization behavior, alongside with personality. Cognition involves a broad spectrum of abilities such as emotional intelligence, creativity (Omri and Becuwe 2014), and decision styles (Felício et al. 2016), as well as perceptions of internationalization barriers.

4.1.2 Internationalization behaviors

Internationalization behavior denotes micro-processes geared towards internationalization such as opportunity identification (Muzychenko and Liesch 2015), decision-making behavior (Francioni et al. 2015), innovative behavior (Omri and Becuwe 2014), and internationalization propensity (Gundlach and Sammartino 2019; Felício et al. 2013, 2016). While most studies focused on the individual-level behaviors, two studies researched dimensions of firm-level internationalization behaviors such as innovation of products and services (Omri and Becuwe 2014), internationalization effect on the firm, international know-how activities and international networking activities (Felício et al. 2013). Internationalization is—in essence—a firm level behavior, so we could deduce that specific individual-level behaviors of SME decision-makers are pre-requisites for the formation of specific firm-level internationalization behaviors (e.g. innovation-driven internationalization behaviors), although the reviewed studies did not clarify this assumption explicitly.

4.1.3 Personality, cognition, and internationalization behavior

Three types of relationships were prominent in our analysis, as illustrated in Fig. 3. Firstly, personality aspects were found to affect different dimensions of
internationalization behavior, both jointly and independently. The need for achievement and risk attitude, for example, have different independent effects on the political and rational behaviors during the international strategic-decision making process. An achievement-oriented personality, who is aware of the risks related to internationalization, tends to rely on the support of both internal actors and external parties (which implies political behavior) when making strategic internationalization decisions, such as the entry mode choice or foreign markets selection (Francioni et al. 2015). The risk-attitude, however, appears to have a positive and significant impact on rational behavior. More specifically, in the context of internationalizing SMEs, risk propensity does not always imply a risk-seeking approach, but rather a greater awareness of the decisions’ riskiness compels the decision-maker to analyze the relevant data and follow appropriate methods (Francioni et al. 2015). These fine-grained distinctions further our knowledge in the IE domain, contrasting to research that shows that small-firm entrepreneurs instinctively follow their intuition (Musso and Francioni 2014) and enter international markets in an unplanned or even irrational manner (Collinson and Houlden 2005; Ellis 2000; Francioni et al. 2015; Musso and Francioni 2014). Personality aspects such as achievement, cosmopolitanism, a passion for cross-cultural encounters, and self-efficacy are found to jointly influence the international opportunity identification behavior (Muzychenko and Liesch 2015). The role of personality aspects is supported by the fact that identifying opportunities is a subjective process (Kirzner 1997).

Secondly, personality and cognition jointly affect internationalization behavior. Felício et al. (2013) propose that individual attitudinal and cognitive dimensions reflect the individual’s global mindset (IGM). They demonstrate that one or the other dimension of IGM differently affects internationalization behavior, depending on the entrepreneur’s country of origin. These findings are in line with information-processing theory, which considers that the individuals’ ability to process information has limitations and that the data-collection context influences the interpretation process (Felício et al. 2016; Giaglis and Fouskas 2011; Leonard et al. 1999).

Thirdly, personality appears to influence cognition in the internationalization context. Personality traits affect internationalization behavior indirectly by nurturing mental abilities such as emotional intelligence and creativity, which are fundamental for innovative behavior (Omri and Becuwe 2014). Gundlach and Sammartino (2019), however, present findings that do not support the relationship between personality of the SME business owner and their perceptions of barriers to internationalization. They conclude that an interaction between personality traits and self-perception (self-efficacy) might still be at play, but this should be controlled by objective variables, such as the actual size of the resource-base of business owners. Small business owners with a higher tolerance for ambiguity, or with a more proactive personality, might therefore perceive their existing resource base as sufficient, while small business owners with lower tolerance or less proactiveness might perceive the same resource base as inadequate. Although inconclusive, these results point towards the effect of personality traits portrayed in Fig. 3 on cognition, such as perceptions of internationalization barriers. When other possible influencing objective factors are held equal, perceptions might influence internationalization behavior.
4.1.4 Individual global mindset and cultural intelligence

We end this thematic review section with a critical analysis of the employment of unidimensional concepts (i.e., motives, attitudes, beliefs, and cognitions) and multidimensional concepts (i.e. individual global mindset (IGM) and cultural intelligence (CQ)) to research the individual (see Table 3). Both IGM and CQ have already been empirically tested within the IB domain, revealing consistent results in predicting successful individual behavior in the context of internationalization (Andresen and Bergdolt 2016; Bartlett and Ghoshal 1992; Earley and Ang 2003; Kyvik 2018). In addition, both constructs consist of psychological and cognitive aspects, pointing to specific motives and attitudes, on the one hand, and cognitive abilities and preferences, on the other hand. They both imply specific personality traits, such as openness to experience and curiosity. Despite these similarities, IGM and CQ have a conceptually distinct focus (Andresen and Bergdolt 2016). IGM reflects an intrinsic disposition to recognize and exploit international opportunities, as part of a long-term vision to build an international company. This is underpinned by complex strategic thinking and integrative abilities (Eriksson et al. 2014; Levy et al. 2007; Nummela et al. 2004). Contrary, CQ relates to personal preferences and abilities to learn and adapt in new environments, and connect with people from different cultures. It points towards implementation of strategies through a repertoire of behavioral tactics that are underpinned by emotional intelligence (Earley 2002; Earley and Ang 2003).

Considering the above, we suggest that some of the examined motives, attitudes, and cognitive abilities can be clustered around IGM or CQ. We illustrate this with concepts employed by the reviewed articles in Table 3. The achievement motive, for example, seems to be closely related to IGM, since it was found to influence entrepreneurial internationalization behaviors such as strategic decision-making, as well as exploration of international opportunities in order to drive growth and innovation (Francioni et al. 2015; Muzychenko and Liesch 2015). Muzychenko and Liesch (2015), for example, report that entrepreneurs exploring international opportunities described their motivation in terms of ‘affective states characteristic of an achievement entrepreneurial attitude orientation’ (p. 711), such as ‘pride in contributing to business growth of the firm’, ‘excitement of seeking a new market for the firm’, and the ‘the thrill of international success’ (p. 710).

Passion for cross-cultural encounters (Muzychenko and Liesch 2015), on the other hand, seems to resemble motivational cultural intelligence, which has been conceptualized as one of the dimensions of CQ (Ang et al. 2007; Earley and Ang 2003; Templer et al. 2006). Together with self-efficacy, passion for cross-cultural encounters fuels entrepreneurial behaviors that enhance commitment to exploit international opportunities, and to acquire unique insights in foreign markets and international networks (Charoensukmongkol 2014; Muzychenko and Liesch 2015).

Following this line of thought, we identify global orientation (Felício et al. 2013, 2016) and cosmopolitanism (Muzychenko and Liesch 2015) as attitudinal components of IGM, relating closely to Big Five personality traits predicting innovative behavior (i.e., extraversion, agreeableness, conscientiousness, and openness), as shown by Omri and Becuwe (2014). Finally, cognitive abilities such
### Table 3  Individual global mindset (IGM) and cultural intelligence (CQ)

| Individual global mindset (IGM) | Cultural intelligence (CQ) |
|---------------------------------|-----------------------------|
| Psychological and cognitive characteristics such as curiosity and concern for the global context, acceptance of complexity, sensitivity towards diversity, search for opportunities in environments of uncertainty, and integrative thinking (Srinivas 1995; Siegel and Renko 2012; Renko et al. 2012; Felício et al. 2013, 2016) | Cognitive, motivational, and behavioral characteristics that allow individuals to make sense of the complexity in culture-related issues, to predict the behaviors of people from other cultures, and to adapt seamlessly to various foreign settings (Earley 2002; Earley and Ang 2003; Charoensukmongkol 2014) |

#### Dimensions and Operationalization

**Attitudes and Values (Behavioral)**

**Global Orientation**: 'open to ideas', 'willing to work abroad', 'growth objectives', 'take firm to international markets', 'time for international operations', 'sees the world as a single market', and 'sees the world both as playground and school' (Felício et al. 2013, 2016)

**Cosmopolitanism**: 'international business activities add value for the firm'; 'benchmark the firm on the global scale'; and 'accept new business ideas regardless of origin' (Muzychenko and Liesch 2015)

**Behavioral CQ**: 'changes nonverbal behavior when a cross-cultural situation requires it' (Ang et al. 2007; Charoensukmongkol 2014)

**Motives**

**Achievement**: 'pride in contributing to business growth of the firm', 'excitement of seeking a new market for the firm', and 'the thrill of international success' (Muzychenko and Liesch 2015)

**Motivational CQ**: 'enjoys interacting with people from different cultures' (Ang et al. 2007; Charoensukmongkol 2014)

**Passion for cross-cultural encounters**: 'curious about cultural differences', and 'enjoyment of cross-cultural interpersonal relationships' (Muzychenko and Liesch 2015)

**Cognition**

**Decision-style and attitudes**: 'interdisciplinary collaboration', 'listening to others' 'believes can influence', 'team player', 'result-oriented', and 'curiosity' (Felício et al. 2013, 2016)

**Strategic (global) complex thinking**: Strategic ability to manage complex, and geographically spread operations (Nummela et al. 2004; Levy et al. 2007; Eriksson et al. 2014)

**Cognitive CQ**: 'knows the cultural values and religious beliefs of other cultures' (Ang et al. 2007; Charoensukmongkol 2014)

**Metacognitive CQ**: 'conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds' (Ang et al. 2007; Charoensukmongkol 2014)

**Cultural Awareness**: 'ability to highlight aspects of cultures and perceive differences'. (Eriksson et al. 2014)

**Beliefs**

N/A

**Self-efficacy in cross-cultural interpersonal relationships**: 'in reducing anxiety and uncertainty caused by cultural differences, 'in building trust based interpersonal relationships with individuals from other cultures' (Muzychenko and Liesch 2015)
as decision styles and strategic abilities to manage complexity seem to pertain to IGM, while sensitivity towards and knowledge of other cultures, as well as cultural awareness (Eriksson et al. 2014), represent the cognitive and meta-cognitive dimensions of CQ (Ang et al. 2007; Charoensukmongkol 2014).

The need to conceptually separate the cultural and strategic attributes of individuals who perform well in an international context has been already acknowledged in the IB literature (Andresen and Bergdolt 2016; Levy et al. 2007). However, personality and cognitive aspects of the entrepreneur, originating either in the field of entrepreneurship or psychology, such as traits, motives or attitudes, have not yet been conceptually aligned to the previous IB tradition, as proven by our review. Therefore, we propose a more nuanced conceptualization and measurement of the different dimensions similar to IGM and CQ, and will refer further to both constructs in an aggregated manner, as well as through their separate personality and cognitive components.

### 4.2 Theme 2: internationalization initiation

A large number of studies in the IB and IE fields focused on the determinants of intentionality in search of predictive models of firm internationalization potential and initiation success. As early as 1978, Wiedersheim-Paul et al. (1978) proposed that export intentions are typically related to pre-export activity, which often leads to actual export behavior. Also, our SLR reveals considerable attention for the role of the individual within the process of internationalization initiation (this was apparent in nine out of 26 articles). Individual differences in personality, cognition and personal intentions affect the formation of firm-level strategic intentions, and the initiation and commitment to internationalization activities. The context in which SMEs operate (both at the firm and environment-level) moderates this relationship. The different concepts employed by the reviewed authors and the main relationships, as well as other possibilities for future research are illustrated in Fig. 4.
4.2.1 Individual-level characteristics

Two clusters of individual characteristics emerge as a result of our SLR analysis: The first one represents personality and cognition aspects, and the second encompasses personal intentions and motivations of the entrepreneur.

4.2.1.1 Personality and cognition Traits (such as proactiveness) and attitudes are the main personality aspects employed by the reviewed articles in relation to internationalization intentionality. Following Crant’s definition, a proactive individual is someone who ‘takes the initiative in improving the present situation, or in the creation of new situations’ (Crant 2000, p. 436). Proactiveness is conditioned by the individual’s cognitive style (rational or intuitive) and tolerance of ambiguity (Acedo and Galán 2011). An international market outlook (Wood et al. 2014) plus entrepreneurial attitudes and values (Urbano et al. 2011) represent the two types of attitudes required to initiate internationalization. Somer and Haug (2011) acknowledge the fact that the attitudinal component in international entrepreneurship is multi-faceted, including both entrepreneurial attitudes towards risk (McDougall and Oviatt 2000), as well as positive attitudes towards internationalization and the complexity, costs, and returns involved (Vida et al. 2000).

Perceptions form the cognitive interface between personality and the broader context in which the SME’s decision-maker operates. The context could be both firm and home-country related. Hence, more proactive individuals display positive perceptions of working in foreign markets (including perceptions of greater opportunities, likelihood of success, and less risk) than do less proactive individuals (Acedo and Galán 2011). Perceptions of institutions and society of the home country (García-Cabrera et al. 2016) represent entrepreneurs’ subjective interpretations of the (objective) information on institutions shaping the local environment. This view is supported by neo-institutionalism, which states that the individual takes on a more active role in their relation with institutions (North 1990, 2005) by accepting, adapting or ignoring the current institutions (García-Cabrera et al. 2016) in their internationalization endeavors.

4.2.1.2 Personal and firm intentions Although the level of analysis for intentionality was often unclear in the reviewed articles, and concepts such as intentionality and motivation have been used interchangeably, Kundu and Katz (2003) clearly distinguish between individual intentions and their firm-level counterparts. A closer look into the operationalization of intentionality provides useful insights in this regard. We analyze the different concepts employed by the reviewed articles, and provide a classification of intention-related variables in Table 4.

Personal (individual) intentions or motivations, on the one hand, convey a subjective will, the personal drivers of the SME’s decision-makers to make an effort to internationalize their venture (e.g. García-Cabrera et al. 2016; Sommer and Haug 2011). Individual internationalization intentions are closely related to the entrepreneurial aspirations, the entrepreneur’s scope, and his/her ambitions. Kundu and Katz (2003) label these entrepreneurial aspirations as ‘innovation
| Article no. | Conceptualization of intentionality/motivation | Operationalization | Classification in our SLR |
|------------|---------------------------------------------|-------------------|--------------------------|
| (23)       | *Behavioral intention* (Sommer and Haug 2011) Motivation of an individual to make effort to perform a specific behavior; proximal cognitive state that is temporally and causally next to the intended behavior | A ‘high motivation to participate actively in the race for new markets.’ (‘Seeking and exploiting business opportunities in foreign markets’) | Individual level |
| (10)       | *Opportunity motivation* (García-Cabrera et al. 2016) Set of objectives—e.g., obtaining a high income, or reaching a high social status—that pulls the entrepreneur (Hessels et al. 2008) towards the implementation of business projects with high growth potential (Acs et al. 2008) | ‘Exploit business opportunities’, ‘contribute to welfare of my community’, ‘make lots of money’, ‘exploit skills as entrepreneur’, and ‘chance to make use of own educational level’ (Williams 2009; Birley and Westhead 1994) | Individual level |
| (1)        | *Behavioral intention*: Acedo and Galán (2011) Proactive/reactive stimuli motivating a decision to export | ‘Proactiveness’ in strategic orientations using an index based on respondents’ responses to particular issues (Julien et al. 1997) | Firm level |
| (4)        | *Management international intentionality* (Dasi et al. 2015) Proactive strategic behavior (Flier et al. 2003; Hutzschenreuter et al. 2007; Kwee et al. 2011) | The difference between the current relevance of a corporate strategy and its relevance to a time span covering the next three years (Hambrick et al. 1993; Sanchez-Peinado et al. 2010) | Firm level |
| (26)       | *Managerial motivation for initiating export activities* (Wood et al. 2014) An assessment about whether specific efforts lead to the attainment of a desired outcome | A function of expectancy, instrumentality, and valence (Leonard et al. 1999) | Firm level |
| (16)       | *Individual intentions* (Kundu and Katz 2003) ‘inner, psychological world of the entrepreneur’ *Firm-level intentions* (Kundu and Katz 2003) | *Individual*: ‘Innovation (technological) orientation’ and ‘Globalization’, which is the ‘scope and ambition of the CEO’s and their strategic thrust to internationalize the venture’) | Individual and firm level |
|            |                                             | *Firm*: Foreign market coverage | |

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(technological) orientation’, and as ‘glocalization’ in the case of born-international firms. Firm intentions, on the other hand, combine an individual intention or desire with the strategic intent of the firm, taking account of the contextual opportunities or constraints presented by the firm and its broader environment (Acedo and Galán 2011; Dasi et al. 2015; Wood et al. 2014). Acedo and Galán (2011), for example, measure internationalization intention in terms of proactiveness of strategic orientations. In the same vein, Dasi et al. (2015) propose that management (international) intentionality represents a proactive strategic behavior (Flier et al. 2003; Hutzschenreuter et al. 2007; Kwee et al. 2011), operationalizing it as the difference between the current relevance of a corporate strategy and its relevance to a time span covering the next three years (Hambrick et al. 1993; Sánchez Peinado et al. 2010).

So, our analysis suggests that internationalization individual and the firm-level intentions are two distinctive concepts, which play a different role as mediators within the internationalization behavioral chain as illustrated in Fig. 4.

4.2.2 Firm and environment characteristics

Firm-level characteristics, such as explorative versus exploitative orientation and the SME’s available resources, enable or constraint the formation process of management intentionality to internationalize (Dasi et al. 2015; Wood et al. 2014). The same holds for the environment in which the SME operates: It creates a context that impedes or stimulates the development of internationalization intentions. Viewed as a set of socio-cultural factors, the environment refers to the presence of role models within the ethnic community (Urbano et al. 2011) or other regulative, cognitive, and normative dimensions at country level (García-Cabrera et al. 2016). García-Cabrera et al. (2016) point to the specific case of emerging economies, where the normative institutional dimension becomes relatively important, making up for the lack of regulation.

4.2.3 Firm internationalization: initiation

Viewed through a behavioral lens, internationalization initiation is the outcome of a process of intentionality, and is observed in the current literature as the actual initiation or involvement in international activities (Acedo and Galán 2011; García-Cabrera et al. 2016; Urbano et al. 2011; Wood et al. 2014), and/or commitment and development of internationalization activities (Acedo and Galán 2011; Urbano et al. 2011). A few authors focused on a specific kind of initiation: early internationalization (Kaur and Sandhu 2013; Kundu and Katz 2003; Muñoz-Bullón et al. 2015) and advanced foreign market entry modes (Game and Apfelthaler 2016).

4.2.4 Individual characteristics, internationalization intention and initiation

Our analysis portrays three sets of relationships. The first relationship refers to the impact of individual characteristics (personality, cognition, and individual intentions) on the firm’s intention to internationalize and the initiation of cross-border activities.
Our findings show that personality aspects cannot be separated from cognition in the process of intentionality formation. Proactiveness conditions the perceptions of the decision-maker over her/his capacity of control of foreign operations (Acedo and Galán 2011). At the same time, individual perceptions of risks and opportunities filter the type of export stimuli (i.e., proactive versus reactive) driving the firm’s strategic intentionality to internationalize (Acedo and Galán 2011). These findings are supported by scholars researching the attitudinal component of personality. Urbano et al. (2011), for example, find that entrepreneurial attitudes and the perceptions of the culture and opportunities of the host society affect their willingness to start and develop transnational entrepreneurship. Alongside with personality and cognition, opportunity motivation (García-Cabrera et al. 2016) and individual intentions (Kundu and Katz 2003; Sommer and Haug 2011) complete the set of individual characteristics required at the outset of international activities. Positive perceptions of the normative aspects of institutions in the home country (e.g., social values supporting high-growth entrepreneurship) trigger the development of opportunity motivation for entrepreneurs (García-Cabrera et al. 2016). Opportunity motivation, in turn, informs and directs the initiation of international activities.

A second set of relationships explains the conditions under which individual characteristics develop into firm-level strategic intentions to start internationalization. The reviewed articles suggest a moderating effect of firm and environmental factors on the first type of relationship (Dasi et al. 2015; García-Cabrera et al. 2016; Urbano et al. 2011; Wood et al. 2014). Resource availability (Dasi et al. 2015; Wood et al. 2014) and an explorative orientation (Dasi et al. 2015) may prevent or enhance the transformation of an individual’s willingness to participate in a proactive internationalization strategy. The presence of slack resources ‘helps organizations avoid the rejection of ideas in their infancy’ (Dasi et al. 2015, p. 80), and strengthens the formation of management intentionality to internationalize (Wood et al. 2014). The explorative orientation turns out to have implications for the learning mechanisms that model the normative context within the firm. This normative context provides favorable conditions for individual managers to act proactively and innovatively on a strategic level, take risks with regard to international activities, and avoid ‘organizational myopia’ (Dasi et al. 2015). Moreover, the regulative and normative environment (which is prevalent by an entrepreneurial cultural or role models) (Urbano et al. 2011; García-Cabrera et al. 2016) contributes to the materialization of personal ambitions into concrete endeavors to start internationalization.

The third relationship explored by the reviewed articles consists of the effect of intention type (proactive versus reactive, and opportunity versus necessity driven) on both initiation of and commitment to internationalization. A proactive and opportunity-driven approach, for example, seems to predict not only initiation, but also sustenance and further development of international activities (Acedo and Galán 2011; García-Cabrera et al. 2016).
4.3 Theme 3: internationalization performance

This theme closes the loop of the SME’s internationalization behavioral chain. The literature on the individual level and internationalization performance focuses primarily on the degree and the speed of the internationalization. The capabilities of the firm seem to mediate the relationship between individual characteristics and internationalization performance, since only three out of the nine articles explore a direct relationship between personality and performance. Our findings are illustrated in Fig. 5.

4.3.1 Individual-level characteristics

Two clusters of personality and cognition aspects prove to be relevant in this context. One of them consists of entrepreneurial characteristics, while the other reflects the qualities of the ‘global entrepreneur’, which are closely related to the multidimensional constructs ‘Cultural Intelligence’ (CQ) and ‘Individual Global Mindset’ (IGM) (see Sect. 4.1.4, Table 3).

4.3.1.1 Personality and cognition Proactiveness, innovativeness, and risk-taking are dimensions of entrepreneurial orientation (Lumpkin and Dess 1996; Wales et al. 2011), which have been already identified as predictors of both business creation and success by research on entrepreneurship and personality (Brandstätter 2011; Rauch and Frese 2007; Zhao and Seibert 2006). Noticeable in the present review is the predominance of risk-related characteristics. Risk is a two-faceted concept. As preference, risk is related to personality, as is prevalent in risk-taking propensity (Li et al. 2015), the ability to take risks (Eriksson et al. 2014) or a risk-taking mindset (Kuivalainen et al. 2004). Conceptualized as ‘risk perceptions’ (Handrito et al. 2020; Ruzzier et al. 2007), risk is also the result of a subjective cognitive assessment process, which depends on both personal (and subjective) preferences and on objective situations or factual information during the internationalization process.
Previously coined as level of risk tolerance (Brockhaus 1980; Hisrich and Peters 2002; Wally and Baum 1994; Wiedersheim-Paul et al. 1978), risk has been already associated with other personality traits, such as a high tolerance for ambiguity and a willingness to decide (Baum and Wally 2003), psychological flexibility in terms of informality, adaptability, optimism, and adventurousness (Covin and Miller 2014), and the achievement motive (Brockhaus 1980). Surprisingly, only one recent reviewed article (Handrito et al. 2020) explored the interplay between the level of the entrepreneur’s implicit need for achievement (as personality aspect) and risk perceptions in relation to the degree of internationalization. This study’s findings underscore the importance of both intrinsic motives and the degree of perceived internationalization risk.

Motivational CQ and global orientation appear to be the predominant qualities of successful international entrepreneurs. Embedded within the broader CQ and IGM concepts, these qualities underpin distinctive entrepreneurial behaviors: The first one enhances problem-solving during intercultural encounters (Charoensukmongkol 2014; Earley and Gardner 2005) and connecting, developing and maintaining networks of partners and key contacts abroad (Eriksson et al. 2014); the latter fuels entrepreneurial vision and growth objectives via internationalization, directing time and focus towards managing and planning international operations (Felício et al. 2013).

### 4.3.2 Firm capabilities

We identify four groups of organizational capabilities that facilitate successful operations in international markets for SMEs: Learning, agility, corporate mindset, and firm-level EO. The learning capability consists of absorptive capacity (Eriksson et al. 2014), or the ‘ability to understand the value of new information, absorb it and apply it’ (Cohen and Levinthal 1990, p. 128), international knowledge acquisition capability (Charoensukmongkol 2014), and organization of knowledge (Li et al. 2015).

Agility or flexibility refers to ‘the ability to reallocate resources quickly and smoothly in response to change’ (Buckley and Casson 1998, p. 23), and the ability to stretch internal and external boundaries (Eriksson et al. 2014) when the company acquires new companies abroad, or decides on changing key international partners. Agility reflects also responsiveness to the environment (Li et al. 2012). In order to deal smoothly and quickly with environment opportunities and threats, small companies need consensus (Li et al. 2015).

The corporate mindset includes company-level consensus and corporate global mindset (CGM). While consensus reflects the level of agreement between decision-makers’ selection of optimal alternatives (Eisenhardt 1989), the degree of centralization (Covin and Miller 2014), and a lack of internal power battles and conflicts that delay the firm’s internationalization (Li et al. 2012, 2015), CGM allows the SME to think and act in an integrated manner and within a global perspective (Beechler et al. 2004; Begley and Boyd 2003; Jeannet 2000; Felício et al. 2016). CGM, on the one hand, integrates global cognition capability, knowledge, and orientation at a firm level (Felício et al. 2013, 2016; Kedia and Mukherji 1999). Firm level EO, on
the other hand, reflects the SME’s inclination towards innovation, proactiveness, and risk-taking (Covin and Slevin 1989; Sahin and Gurbuz 2020).

4.3.3 Internationalization performance

The firm-level outcome of internationalization behaviors is internationalization performance. The reviewed body of literature observes performance both as a snapshot of the firm’s situation at a specific moment in time—such as the degree of internationalization of the firm (e.g., Bal and Kunday 2014; Handrito et al. 2020; Kuivalainen et al. 2007; Ruzzier et al. 2007), and as the intensity of internationalization over a period of time (i.e. the pace of international growth).

4.3.4 Relationship between the individual level and internationalization performance

The main decision-maker’s personality and cognition are necessary ingredients for the formation of organizational capabilities leading to successful internationalization. The upper echelon theory (Hambrick and Mason 1984) sustains the view that the knowledge and capabilities of the main decision-maker are reflected in the competitive capabilities of a firm. This is especially true in the case of SMEs, since their size allows for centralized control by a single owner-manager/founder, or small team of entrepreneurs who jointly represent the SME’s level of knowledge (Down 1999; Charoensukmongkol 2014). In other words, the entrepreneur’s cultural knowledge and affinities (or CQ) are reflected in the knowledge capability of the firm, and can serve as a key factor to enhance the firm’s international knowledge acquisition capability (Charoensukmongkol 2014).

However, and important to note, our literature review suggests that personality aspects are not simply mirrored in firm-level capabilities. More specifically, Felício et al. (2013, 2016) and Li et al. (2015) show that the SMEs’ entrepreneurs deploy their psychological capital to enable and purposefully shape the internationalization capabilities of their firm. Risk-tolerance and proactiveness, for example, enable entrepreneurs to respond fast to opportunities or threats, motivate them to collect crucial internal and external information, and encourage internalization of information and learning. This dynamic process of knowledge exchange, in turn, facilitates quick consensus among decision makers, and promotes firm responsiveness to opportunities and threats in foreign markets (Li et al. 2015).

In line with the resource-based view (Barney 1991) and internalization theory (Rugman 2005), our analysis of the reviewed articles indicates that both unique individual characteristics and firm capabilities enable SMEs to effectively deliver upon internationalization efforts. Felício et al. (2016), for example, found a strong relationship between IGM and CGM, and conclude that both influence internationalization behavior outcomes. In the same vein, the successful organization of a small global factory requires dynamic capabilities that comprehend both specific individual-level characteristics (i.e., a global mindset, cultural awareness, and entrepreneurial orientation), as well as firm-wide capabilities, such as flexibility and absorptive capacity (Eriksson et al. 2014). In addition,
evidence collected by Li et al. (2015) on Chinese born-global firms shows that internationalization speed is affected by both individual psychological qualities and company-level capabilities in combination. Research on a direct relationship of personality and internationalization performance is only weakly represented in the reviewed articles (e.g. Handrito et al. 2020).

Moreover, a unidirectional causal relationship between individual characteristics and firm capabilities leading to internationalization performance remains questionable. As shown by Li et al. (2015), there are complex interacting effects between individual characteristics and firm capabilities. The fast learning capabilities of born-global firms and accumulation of unique market information enhance the degree of proactiveness and the risk-taking propensity, promoting fast decision-making and consequently the firm’s speed of internationalization (Li et al. 2015). In line with the Uppsala ‘stage’ theory, firm-level knowledge accumulated through past exporting experience might serve as a basis for business owners in developing their CQ (Charoensukmongkol 2014). While deep personality traits are difficult to change over time, IB research shows that cultural psychological capital (i.e., hope, optimism, self-efficacy, and resilience) is positively related to motivational CQ and metacognition, and that it can be improved (Yunlu and Clapp-Smith 2014). Sahin and Gurbuz (2020) suggest, for example, that the ideal configuration of individual CQ characteristics moderates the relationship between firm-level EO and international performance. At the same time, they propose alternatives to this moderation approach and recommend identifying configurations of both managerial characteristics and organizational capabilities leading to successful outcomes (Sahin and Gurbuz 2020).

5 Cross-thematic discussion and future research avenues

In this review, we map the research on personality across the SME internationalization behavioral chain. In the previous section we distinguish the role of personality from other individual-level characteristics and highlight the web of relationships between personality and other constructs in a thematic manner, focusing each time on internationalization behaviors, initiation and performance, respectively. This in depth thematic analysis allows us to answer the first goal of this review: understand which personality characteristics have been employed to explain SME internationalization. It also allows us to compare the extent of personality research across the three themes, and conclude that personality-related research on behavioral outcomes—initiation and performance, prevails. In this section we point out some blind spots for personality research across the SME internationalization behavioral process, focusing on the how—the mechanisms explaining the relationship between individual and firm level behaviors and outcomes. We integrate our findings within the initially proposed behavioral framework and conclude with future research recommendations.
5.1 Personality and SME internationalization: a cross-thematic discussion

Our thematic review has shown that personality (alongside with cognition) has a direct impact on three types of mediating constructs: motivation (e.g. opportunity/necessity motivation) and behavioral intention, pre-internationalization behaviors (such as international opportunity identification, political/rational strategic decision-making, innovation, internationalization propensity) and firms capabilities enabling internationalization performance (such as learning, agility, a global corporate mindset and entrepreneurial orientation).

These findings are partly in line with the entrepreneurship literature on personality-business creation and success. Drawing on findings from different meta-analyses on the topic, Rauch and Frese (2007) propose a framework which includes mediating processes such as motivation (Baum and Locke 2004) and strategy development (Rauch and Frese 2000). We note a paucity of research on business strategy development and associated firm-level behaviors in the reviewed literature. The relatively small body of literature summarized in Sect. 4.1 refers to how personality conditions specific pre-internationalization behaviors, often observed at the individual level of analysis. Authors argue that these behaviors are related to internationalization, but do not offer empirical support for causal relationships with specific internationalization outcomes (such as the choice for specific foreign market entry-modes) or strategic behaviors leading to these outcomes.

Moreover, our thematic review (see Sect. 4.3.2) highlights a rich palette of internationalization capabilities as mediator of the personality-internationalization performance relationship. What we still do not fully know is how individual differences impact the learning and adaptive behaviors associated with these capabilities, and how these behaviors affect specific outcomes. Also worth noticing is the rather weak representation of articles supporting a direct relationship between personality and post-internationalization performance. Only Handrito et al. (2020) and Eriksson et al. (2014) research a direct relationship: the first article finds a positive effect of the implicit need for achievement and risk perceptions on the degree of internationalization of SME; the latter article—a single-case study research of a Finish Small Global Factory (SGF)—proposes that both individual and firm dynamic capabilities are needed for the successful management of a SGF.

These findings point towards the limited integration of insights from the psychology and organizational behavior fields into the research on SME internationalization. This despite the current scholarly consensus on the validity of certain personality variables for organization behavior (Barrick and Mount 1991), leadership (Judge et al. 2002) and entrepreneurship (Rauch and Frese 2007). One reason for this situation might be the large focus of the reviewed articles on a few theoretical approaches (see Table 2 for an overview of the theories in our review): the TPB (Ajzen 1991) for explaining individual intentionality and pre-internationalization behaviors (Acedo and Galán 2011; Game and Apfelthaler 2016; Muzychenko and Liesch 2015; Sommer and Haug 2011) and the RBV (Barney 1991) for explaining how unique individual and firm capabilities contribute to post-internationalization performance (Charoenmukmongkol 2014; Felício et al. 2016; Kaur and Sandhu 2013; Kuivalainen et al. 2004; Ruzzier et al. 2007; Sahin and Gurbuz 2020). The Upper echelon (Hambrick and Mason 1984) is one of the only
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theoretical framework employed to argument the relationship between the individual and firm-level performance. We need to involve additional theories in order to better understand the dynamics between individual characteristics and firm-level behaviors in the context of SME internationalization. In the same line, personality scholars advocate for research that goes beyond behaviors classifications, to include their determinants and key mechanisms (Bandura 1999; Rauch and Frese 2007).

A second reason hampering the further development of personality research is aligning the level of specificity between personality, behaviors and outcome variables, since ‘more specific traits might lead to more specific processes’ (Kanfer 1992). In this regard, broad traits (e.g. Big Five) are generally considered to be ‘distal’ and deemed less likely to predict specific behaviors (Epstein and O’Brien 1985) as compared to ‘proximal’ individual differences (such as need for achievement, risk-taking, innovativeness, autonomy, locus of control, and self-efficacy (Rauch and Frese 2000). We do indeed notice that Big Five personality traits were only researched by Omri and Becuwe (2014), and they did not predict innovative behavior directly, but through the intermediation of mental abilities. Furthermore, behavioral outcomes might need more differentiation in terms of tasks and context, especially since ‘personality factors contributed more strongly to contextual performance than to task performance ‘(Borman and Motowidlo 1997, p. 100) in the entrepreneurship literature. In our review, aggregated measures of internationalization performance (such as internationalization degree or export performance) are predominant, and this may be the reason for the inconsistent findings regarding a direct impact of personality characteristics on internationalization performance.

Thirdly, and closely linked to the last point is the need to take the interaction between personality and situational parameters into account (Magnusson and Endler 1977; Vinchur et al. 1998). Our analysis has identified a number of contextual factors at the firm- and environment-level of analysis, mostly related to the initiation of foreign activities (see Sect. 4.2.2). The role of contextual and situation-specific factors in the analysis of direct relationships between personality and internationalization performance is not fully explored yet in the reviewed literature. Some unexpected findings, such the relationship between high-risk perceptions (instead of moderate-risk perception) of achievement-driven entrepreneurs and a high degree of internationalization (see Handrito et al. 2020) could be, for example explained by the role of the SME in the industry value-chain (e.g. a direct contact with international customers or working through exporting intermediaries). Personality-studies in the entrepreneurship literature, have indeed shown that certain personality characteristics are more important for business success within one particular setting, such as extraversion—in a context where the entrepreneur has direct and intensive contact with many customers (Vinchur et al. 1998).

5.2 SME internationalization through a personality lens: an integrative behavioral framework

The generic behavioral framework employed at the outset of this SLR (Fig. 2) suggested that individual characteristics (including personality) affect
internationalization outcomes both directly, as well as indirectly, through the mediation of specific behaviors. While largely confirming this view, our thematic analysis reveals a number of additional antecedents at the individual level (cognition, motivation, intention), mediators at the firm-level (capabilities) and context-related variables as moderators at the firm- and environment-level. Our cross-thematic discussion identifies a number of ‘missing links’ in the behavioral chain and area’s deserving further scholarly attention, such as firm-level strategy setting, learning and adaptive behaviors as well as research on a direct relationship between individual characteristics and SME internationalization performance. Aligning the level of specificity between individual, behaviors and outcomes may allow research of additional personality characteristics and their effects on, for example, the preference, selection and adaptation of entry-modes. Accounting for the joint or moderating effects of context- and situation-specific factors, such as past performance or life-cycle stage of the SME (firm-level) as well as industry characteristics and turbulence of the environment, might strengthen the personality-outcomes relationship.

We map the results of our thematic analysis across the behavioral chain in Fig. 6, providing an integrative framework of current and future research on the individual and SME internationalization through a personality lens. Future research variables are marked in Italics and relationships are represented by dashed lines.

5.3 Future research avenues

Five types of future research recommendations unfold from our thematic analysis and cross-thematic discussion: behavioral theoretical approaches, personality and other individual characteristics, internationalization outcomes, context and situation-specific moderators and methodological improvements.

5.3.1 Behavioral theoretical approaches and mechanisms

The very foundations of the IB literature rest on a behavioral and process-oriented approach, whereby companies learn from experiences and increase their
involvement and commitment to foreign markets incrementally (Johanson and Vahlne 1977; Welch and Luostarinen 1988). Calof and Beamish (1995) complement the learning process with adaptation of strategies, structure and resources to the international markets. The IE literature on the other hand, emphasizes entrepreneurial strategic behaviors, which results in the initiation and development of international activities right from or close to company foundation, leading to specific types of international SMEs, such as the Born Globals (BG’s) (Knight and Cavusgil 2005) and International New Ventures (INV’s) (McDougall et al. 1994). An intermediary approach to internationalization—The Born Again Global or the BAG model (Bell et al. 2001) suggests entrepreneurial, but less strategically-planned internationalization behaviors. In line with the BAG model, SMEs grow their business domestically and decide to start international activities in response to a certain internal of external event (see, for example: Bell et al. 2003). Following the behavioral tradition in the IB and IE fields, personality research could further our understanding of the different internationalization behavioral patterns and outcomes of SME, especially when strategic decision-making, learning and adapting micro-processes and theories explaining the related behaviors are concerned. We formulate a few potential future research avenues in this respect.

The Theory of Planned Behavior (TPB) proved to be a fruitful new perspective for research on intentions/motivations and internationalization initiation (e.g., Acedo and Galán 2011; Muzychenko and Liesch 2015; Sommer and Haug 2011). According to the TPB (Ajzen 1991), individual attitudes, subjective norms and perceptions influence the behavioral intentions that determine the individual’s behavior. Hence, TPB provides a solid theoretical framework to explain behaviors and intentions at the individual level of analysis, and has been widely applied in different management fields, including entrepreneurship (Wiklund and Shepherd 2003). Nonetheless, employing TPB to explain the whole internationalization behavioral chain from individual intentions to firm behaviors seems overarching. As shown by the reviewed articles, both the individual behavioral intention and firm-level strategic intent are needed to explain firm internationalization behaviors (Acedo and Galán 2011; Dasi et al. 2015). Moreover, the process of strategic intent formation is conditioned by the firm and the environment in which the SME operates (Dasi et al. 2015; García-Cabrera et al. 2016; Wood et al. 2014). Hence, further research on intentionality might consider multi-level analysis and/or combining TPB with other theoretical firm-level approaches such as the resource-based view (Barney 1991) or neo-institutionalism (North 1990, 2005).

The next two research venues relate to the behavioral theory of the firm (BTF) (Cyert and March 1963). Firstly, the theory of problemistic search explains how performance relative to aspiration levels lead to strategic decision-making behaviors, including market-entries (Greve 1998; Surdu et al. 2021). The application of the problemistic search lens in our case could lead to future research on how unmet individual growth aspirations (due to, for example, insufficient domestic firm-performance) lead to foreign market entries behaviors. Personality could differentiate between growth aspiration types, which, in turn influence strategic choices of entry-modes which are expected to deliver satisfactory performance. The problemistic search approach might refresh the opportunity-based view as motor for SME
internationalization, which was largely present in our review (Acedo and Galán 2011; Dasi et al. 2015; García-Cabrera et al. 2016; Muzychenko and Liesch 2015; Sommer and Haug 2011). This could apply to the specific context of traditional SMEs as well as BAG’s in line with the model proposed by Bell et al. (2001) and nuance the achievement-driven profile of the SME decision-maker by specific dispositions such as ‘Hope for Success’ (HS) versus ‘Fear of Failure’ (FF) (see Atkinson and Litwin’s 1960). FF might push decision-makers towards risky internationalization behaviors and entry-modes when these are perceived as the only solution of improving the SME performance or even become crucial for the survival of the firm.

Thirdly, researching the dynamics between different learning mechanisms, such as experienced-based and vicarious learning represents another potential venue for personality research and SME internationalization. SMEs can learn by doing and interpretation of their own experiences (Levitt and March 1988; Surdu et al. 2021), but also through vicarious learning, which consists of observing the actions and results of other firms (Duysters et al. 2019; Ingram and Baum 1997; Kim and Miner 2007; Myers 2018). Learning from own experiences takes time and sudden and unexpected events in foreign markets or globally require fast adaptation of internationalization behaviors, or even exit from certain markets. Vicarious learning could shorten the time for decision-making, and entrepreneurs might learn from observing other SME’s active in the same markets and/or industry. Future research could explore how personal beliefs and cognitive styles of entrepreneurs affect preferences towards experienced-based and/or vicarious learning behaviors and their impact on adaptation or continuation of specific entry-modes or location choices.

A fourth future research venue might consider the exploration of theoretical mechanisms such as organizational imprinting. This could enrich our understanding on how the entrepreneurs shapes collective capabilities and behaviors through due to their personal attributes and behaviors, beyond the upper echelon theory. Imprinting refers to the process by which events occurring at key developmental stages have persistent and possibly lifelong consequences for the firm (Hannan 1998; Stinchcombe 1965). The IE literature has already adopts this concept to explain the effects of early internationalization and related capabilities on firm survival and growth (Sapienza et al. 2006), but this could be unraveled further. For example, persistent (imprinted) characteristics of the initial organization, such as structure, culture, identity, networks, and routines (Johnson 2007; Milanov and Fernhaber 2009), might have both positive and negative effects on the international development and outcomes. A venture may become captive to its imprinted history and find it increasingly difficult to change and adapt (Bryant 2012). Future studies could build on the idea of organizational imprinting (Boeker 1989) in order to explain how entrepreneurs’ motives, aspirations, and behaviors affect collective routines and capabilities that condition internationalization behaviors and outcomes in SMEs.

A fifth future research avenue relates to the emerging theories of entrepreneurship such as ‘effectuation’ and ‘entrepreneurial bricolage’ (Fisher 2012), and their behavioral implications for the case of the BGs. A specific research area within our literature review explores the influence of personality and other individual- and firm-level characteristics on the development of BGs, through the lens of the resource- based view, as well as network and internalization theories. While effective in explaining
the ‘what’ in terms of unique resources of BGs, these approaches do not reveal the ‘how’ and ‘why’ behind the entrepreneurial decision-making mechanisms yielding such a rather bold and risky internationalization mode. What we still do not know is how the risk-proclivity of the entrepreneur is reflected in the strategy formation and decision-making processes. Is this a rational or rather intuitive process, and is this any different than the one preceding sequential international market entries? For example, it could be that proactive entrepreneurs leading successful BGs employ effectuation and improvisational behavior more often during decision-making, since effectuation processes (as opposed to causal decision-making) are not driven towards one goal and start from a given set of the entrepreneurial assets (Andersson 2011). Effectuation is regarded as more effective in unpredictable environments (Sarasvathy 2001), as it is the case with early internationalization. Here, already developed and validated scales in the field of entrepreneurship could be employed (e.g. Chandler et al. 2011) to assess the application of effectuation and causation processes, and to explore their relationships with the personality of the BG entrepreneur.

5.3.2 Personality and other mediating individual-level characteristics

The literature to date has made considerable efforts in inquiring the psychological proclivity (Muzychenko and Liesch 2015) of the entrepreneurs driving the internationalization process. At the same time, the conceptualization of personality, cognition and other individual-level antecedents could be improved. As mentioned earlier in our discussion (Sect. 5.1), the involvement of ‘proximal’ variables’ and aligning the level of specificity between personality and specific actions and their outcome during the internationalization process could give rise to new fruitful research directions. Of these we mention a few below.

The first unfolds as a result of our critical analysis of the employment of uni-dimensional concepts (i.e., motives, attitudes, beliefs, and cognitions) and multi-dimensional concepts (i.e., individual global mindset (IGM) and cultural intelligence (CQ)) to research internationalization behaviors (see Table 3). Considering their conceptually distinct focus (Andresen and Bergdolt 2016), we suggest that some of the examined motives, attitudes, and cognitive abilities can be clustered around IGM or CQ. The achievement motive, for example, seems to be closely related to IGM, since it was found to influence entrepreneurial internationalization behaviors such as strategic decision-making, as well as exploration of international opportunities in order to drive growth and innovation (Francioni et al. 2015; Muzychenko and Liesch 2015). Passion for cross-cultural encounters (Muzychenko and Liesch 2015), on the other hand, seems to resemble motivational cultural intelligence, which has been conceptualized as one of the dimensions of CQ (Ang et al. 2007; Earley and Ang 2003; Templer et al. 2006). Together with self-efficacy, passion for cross-cultural encounters fuels entrepreneurial behaviors that enhance commitment to exploit international opportunities, and to acquire unique insights in foreign markets and international networks (Charoensukmongkol 2014; Muzychenko and Liesch 2015). Therefore, a nuanced conceptualization and measurement of the different dimensions similar to IGM and CQ—such as traits, motives or attitudes originating either in the field of entrepreneurship or psychology—might enhance the
predictive potential of models related to specific internationalization behaviors, such as strategy-setting (IGM) and learning or developing networks in different cultural settings (CQ).

A second recommendation relates to the further exploration of McClelland’s motives (McClelland 1961) in the relation with entrepreneurial/growth aspirations (Acs et al. 2008; Carsrud and Brännback 2011; García-Cabrera et al. 2016) and the choice for internationalization as lever for realizing growth and fulfilling these aspirations. The literature to date has evidenced the role of individual intentions (Sommer and Haug 2011, p. 125), the scope of the entrepreneurial ambition regarding the company (Kundu and Katz 2003), or opportunity motivation (García-Cabrera et al. 2016) in relation to the initiation of internationalization activities. Individual intentions, however, seem to reflect the ambitions of the entrepreneur aspiring international growth, rather than intended strategic effort. Building on the ambitious entrepreneurship stream of literature (Davidsson 1991; Delmar and Wiklund 2008; Hermans et al. 2015; Wiklund and Shepherd 2003), we suggest that aspirations represent a better conceptualization of the entrepreneur’s willingness or desire to grow the SME—hence our recommendation to further explore aspirations as an individual-level antecedent to internationalization strategic intent. Moreover, future research could build on the ambitious entrepreneurship research and investigate further the role of motives in the formation of entrepreneurial growth aspirations and their realization (Carsrud and Brännback 2011). The need for achievement (McClelland 1961), for example, was associated with opportunity motivations, and growth aspirations (Acs et al. 2008; García-Cabrera et al. 2016), therefore researching the relation between achievement-motivated entrepreneurs, their entrepreneurial (growth) aspirations and internationalization market-entry strategies could prove a fruitful research direction.

Moreover and closely linked to the recommendation above, we suggest that the employment of explicit and implicit motivational systems (Brunstein and Schmitt 2004; McClelland et al. 1989; Schultheiss and Kollner 2014) might further our understanding of the dynamics between personal motivation for internationalization and firm-level goal-setting during the process of internationalization initiation and implementation. Recent developments in the field of psychology have recognized that explicit and implicit motivates proved to have different and independent effects on behavioral tendencies (Kehr 2004; Schultheiss and Kollner 2014). Implicit motives, on the one hand, are aroused by the factors that are intrinsic to the (entrepreneurial) activity (Hermans et al. 2015; Kehr 2004; Ryan and Deci 2000), and fuel the sustenance of long-term goals implementation, and supposedly also commitment to internationalization. Explicit motives, on the other hand, are closely related to the development of goals (Brunstein et al. 1998; Kehr 2004), and could influence the strategic and rational choice to internationalize the SME. Hence, adding implicit and explicit motives to the research models might nuance our understanding of both the initiation, as well as post-internationalization behavioral processes.

Scholars could also build on the interplay between the HS and FF dimensions of the achievement motive and risk perceptions in further research on the micro-foundations of internationalization motivation and relate this to previously identified firm-level proactive or reactive internationalization drivers (Kacker 1985; Treagold...
and Davies 1988) and the resulting internationalization behavioral patterns (Bell et al. 2003). In the same line of thought, one might challenge the predominance of the need for achievement in decision-makers of internationalizing SMEs across different contexts and phases of internationalization. Individuals with a high need for power for example, who are typically associated with effective leadership (McClelland and Burnham 2008) could have a positive impact on SME internationalization implementation and performance (Handrito et al. 2020).

Leadership style within the internationalization process of SME’s is, in fact, largely absent in the reviewed literature, despite the fact that strategic leadership literature has provided useful insights on the impact of top leaders and their characteristics in shaping new successful strategic behaviors and improve firm performance (Hambrick and Mason 1984; Gupta and Govindarajan 1984). Future research could investigate how personality characteristics impact leadership styles which facilitate both internationalization strategy-setting and successful implementation of these strategies. Internal locus of control, for example, was identified as an important predictor of business creation and success in the entrepreneurship literature (Rauch and Frese 2007) and strategic leadership (Boone et al. 1996). An internal locus of control implies that one believes in control over one’s destiny and future (Rotter 1966) and future research could inquire how internal/external locus of control affects the preference for specific strategies and adoption/change of foreign entry-modes related to these strategies for increased performance.

5.3.3 Internationalization outcomes: entry modes selection, adaptation and firm performance

The main results of the reviewed articles point to the fact that the entrepreneur’s personality and cognition characteristics impact performance either in combination or through the mediating effect of firm capabilities. Scholars found empirical evidence, albeit limited, that proactivity (Bal and Kunday 2014), the implicit achievement motive (Handrito et al. 2020), and perception of risks (Handrito et al. 2020; Ruzzier et al. 2007) positively influence the degree of internationalization. These results echo previous findings showing that psycho-cognitive aspects affect the degree (Acedo and Florin 2006) and speed (Acedo and Jones 2007) of internationalization. We may conclude that the direct effect of personality and cognitive aspects on internationalization performance needs further exploration.

Moreover, with the exception of Game and Apfelthaler (2016), we notice a lack of research on personality and advanced entry-modes, despite previous calls to investigate how individual differences (including personality) influence selection of entry-modes (Bruneel and De Cock 2016). Future research could therefore investigate whether the achievement motive and proactiveness—which proved to be antecedents of export initiation in our review—are also responsible for higher risk and commitment entry modes such as joint-ventures and subsidiaries abroad. Alternatively, IE scholars could test additional personality characteristics in this respect, such as openness to experience and tolerance for ambiguity (Bruneel and De Cock 2016) or locus of control.
Post-internationalization adaptation of entry-modes as well as the results of internationalization strategies on the survival, development, and subsequent performance of the SME are largely absent as internationalization outcomes in the reviewed literature to date. A future research area in this respect could be related to the specific case of BGs. Kuivalainen et al. (2007), for example, researched ‘the degree of born-globalness’ (in terms of scale, scope, and time of internationalization) of 185 Finnish mature exporting firms, in relation to firm entrepreneurial orientation (measured as risk-taking, proactiveness, and competitive aggressiveness) and export performance. The authors posit that when the firm is smaller and still focusing on the opening of new geographical markets, risk taking seems to be more important for less internationalized firms than for more global firms. Future research might explore the EO-dimensions at an individual level, and inquire whether the entrepreneurial attributes deemed relevant for the BG initial entry mode choice remain important for developing a ‘true’ BG and for reaching high performance.

5.3.4 Context-specific moderators

A first area requiring further scholarly attention regards the entrepreneur’s home country environment as context, and its possible effect on the relation between personality/cognition and pre-internationalization behaviors. IGM and global orientation have, for example, more relevant effects on the internationalization behavior of Norwegian firms than that of Portuguese firms, concluding that the context affects the way attitudes and cognitions of the entrepreneur impact internationalization behavior (Felício et al. 2013). Following the line of research proposed by Felício et al. (2013, 2016), the environment could be further explored in empirical cross-country research studies, both through its cultural and economic dimensions.

A second research recommendation concerns further involvement of firm-related context variables, such as life-cycle stage of the SME, in order to take stock of possible agency and government shifts affecting the impact of the entrepreneur’s personality characteristics during the internationalization process. Although limited, research findings suggest that the SME’s final internationalization course of action may or may not be in line with the individual entrepreneur’s inner motives and aspirations. Kundu and Katz (2003) conclude that, at the early stages of firm development, it is the owner’s, not the firm’s, characteristics that play a pivotal role in internationalization initiation and performance. They argue that the entrepreneurs who started the firm provide a foundation, but the ‘glocalization’ or the technological innovativeness of the founding entrepreneur can lead to less export growth in later stages. Of course, as the SME grows and matures, its collective behaviors and accumulated resources, experiences, as well as governance structures might outweigh the individual aspirations and intentions of the entrepreneur who started the firm. The results of this article, however, point towards the importance of the development stage or lifecycle of the SME. We may conclude that future research on personality, intentions and initiation of internationalization needs to account for possible moderating effect of SME’s lifecycle stage and/or situational factors associated with these stages.
Finally, we observe a paucity of research including market/industry environmental variables in relation with personality aspects and international performance. Kuivalainen et al. (2004) is the only article that explores the effects of environmental turbulence and a leader mindset on internationalization performance. Their results were partially positive, indicating that SME leaders put more emphasis on internationalization when technological turbulence is significantly higher. Entrepreneurship scholars have developed situation-specific classifications of the environment, showing that unfavorable environments (e.g. such as complex, dynamic environments) ‘may constrain the expression of individual traits’ (Rauch and Frese 2007, p. 28). Future research could therefore involve turbulence, for example, as an important contingency when analyzing the role of individual characteristics and internationalization of SMEs from different industries.

5.3.5 Methodological improvements

We also note a few possible improvements at a methodological level. Of these, we would like to discuss four.

Firstly, a great majority of the articles under review have applied quantitative, cross-sectional methods for researching personality and SME internationalization (see Table 2 for an overview of the research methods in the reviewed literature). While quantitative mediating approaches proved to be appropriate for researching personality effects in entrepreneurship (Baum and Locke 2004; Rauch and Frese 2000), qualitative studies might deepen our understanding on the ‘how’ or underlying mechanisms linking individual and organizational behaviors. Moreover, and in line with a behavioral perspective (Cyert and March 1963; Argote and Greve 2007), process-oriented and longitudinal studies are particularly suited when observing the role of personality and entrepreneurial behavior within the complex internationalization process. One of the main conclusions of our SLR is that the entrepreneur’s personality and cognition are important elements, but not sufficient for achieving internationalization outcomes by SMEs. Methodologically speaking, this implies the possibility of analyzing the impact of different variables at individual-, firm- and environment-level in a holistic manner. García-Cabrera et al. (2016), for example, noted that their multiple linear regression analysis may be limited as it faces difficulties in extending the model to multiple variables and relationships, and faces problems in dealing with the nature of systemic interaction (Barth 2003; Venkataraman 1989), recommending the analysis of the variable in conjunction and employing configurational approaches. In the same line, Sahin and Gurbuz (2020) propose that future research should consider set-theoretic approaches (Fiss 2011; Ragin 2000) and qualitative comparative analysis for identifying managerial characteristics in organizational settings that are associated with successful outcomes, such as firm performance (Sahin and Gurbuz 2020). Therefore, case-study research, configurational methods, process tracing, or experimental action-driven research may well be better suited for multi-level analysis of the topic in future research studies.

Secondly, we notice a paucity of comparative studies. The need for comparative studies across different countries as well as sectors and economic contexts (developing versus economically developed regions) is already acknowledged by different
authors in our review (e.g., Eriksson et al. 2014; Felício et al. 2013; Francioni et al. 2015). Testing the relevance of specific individual characteristics and the role of personality could benefit from comparative studies between born-global and (the more traditional) international SMEs (e.g., Li et al. 2015) or studies comparing SMEs in different phases of internationalization (nascent—still domestic, development, global upscaling, et cetera). The relation between personality type and internationalization success in each phase might nuance the current research findings regarding the global entrepreneur’s profile.

Thirdly, IE research could move beyond studying the single entrepreneur. Nowadays, SMEs, and born-globals in particular, are often founded by teams and not by single entrepreneurs. These teams blend a mixture of personalities, experiences, capabilities, and social capital together, perhaps enhancing their chances for fast internationalization expansion and performance. None of the screened articles involved research on personalities of the individuals of a founding team of entrepreneurs. According to Coviello (2015, p. 23), only ‘team experience and education has been researched (Ganotakis and Love 2012; Reuber and Fischer 1997) as well as team formation and capability mix (Loane et al. 2007). The individual personalities of team members, the dynamics between them, and the optimal mix of individual characteristics for international performance are still under-researched, presenting promising potential for future studies.

Finally, personality aspects—as the focal and starting point of our SLR at the individual level of analysis—were self-assessed. New alternative approaches from psychology and advances in related disciplines (e.g., neurosciences and computing sciences) could offer better-suited measurements to capture individual variabilities in entrepreneur’s personality and behavior that go beyond self-knowledge and self-interpretation. Recent advances in the measurement of personality include, for example, the Brief Implicit Association Test (BIAT) for the measurement of implicit motives (Slabbinck et al. 2018) or personality profiling based on computer-supported analysis of ‘part-of-speech’ (or ‘syntactic features’) frequencies (Luyckx and Daelemans 2008; Oberlander and Gill 2006; Wright and Chin 2014). Moreover, personality neuroscience examines individual differences in behavior, motivation, emotion, and cognition traits through laboratory tasks, behavioral observation, or experience sampling (De Young et al. 2010). These alternative methodologies might shed light on the intricate links between personality traits (e.g., risk proclivity), cognition (e.g., rational or intuitive cognitive style, and cultural intelligence) and emotions (e.g., passion), on the one hand, and decision-making, opportunity identification, strategic approaches, and cross-cultural interactions, on the other hand.

6 Conclusion

In this paper, we assessed the seemingly lack of research advancement regarding the individual entrepreneur in relation to SME internationalization (Acedo and Florin 2006; Coviello 2015; Jones and Coviello 2005; Morais and Ferreira 2020; Zahra et al. 2005). Internationalization adds an additional layer of stimuli, risk and complexity to entrepreneurship. IE scholars often emphasize that ‘internationalization
entails situational uncertainty, with entrepreneurial decisions having uncertain outcomes’ (Verbeke and Ciravegna 2018, p. 390), and encourage research on the underlying psychological drivers that explain the entrepreneur’s motivations to internationalize (Zahra et al. 2005), entry mode selection (Bruneel and De Cock 2016) or other psychological and cognitive mechanisms by which international opportunities are exploited (Mainela et al. 2014). Research on multinationals within the IB domain has already developed personality profiles and predictors of success for individual employees with international assignments (Cascio and Boudreau 2016; Schneider and Tung 2001).

Re-considering critiques of research on personality as a ‘dead-end’ (Gartner 1989; Mitchell et al. 2002), we executed an SLR focusing on work addressing the individual level and SME internationalization, with personality as the focal topic. Our aim was to review the extent of empirical evidence in this field to evaluate our understanding of which individual characteristics play a role, and how do they influence the internationalization process and its outcomes.

Our results suggest that the individual level through the lens of personality is relevant in the context of SME internationalization, especially when adopting a behavioral perspective. Entrepreneurial characteristics such as proactiveness and risk-taking or the achievement motive’ shape aspirations, intentions, opportunity-identification processes and market-entry decisions, which lead to the initiation of internationalization. They also influence the degree and speed of internationalization. Moreover, attitudes such as global orientation, cosmopolitanism, and motives associated with a global mindset and cultural intelligence enable the entrepreneurs to envision international strategies and act upon these visions by exploiting international opportunities and building unique capabilities within their SME.

Despite these findings, the reviewed literature suggests that personality aspects alone do not allow to fully understand the micro-foundations of internationalization. There are intricate relationships between personality and cognition, which jointly form the identity of the entrepreneur and are both responsible for individual variance in behaviors in the context of internationalization. In line with Barney and Felin (2013), we reveal micro-processes and behaviors that emerge through the interaction of the individual agent with firm and environmental conditions.

Building further on the behavioral approach in IE and IB (Oviatt and McDougall 2005; Surdu et al. 2021) and the results of personality research in the entrepreneurship literature (Collins et al. 2004; Rauch and Frese 2007; Stewart and Roth 2004), our thematic analysis provides a fertile ground for further studies on the entrepreneur’s psycho-cognitive aspects in relation to internationalization behaviors and outcomes. We recommend the exploration of alternative behavioral theories, and multi-level and holistic approaches that build on both IE and IB knowledge, but also thoughtfully integrate relevant concepts from the entrepreneurship and psychology fields.

Of course, we acknowledge the limited extent of this SLR of this rather young stream of research, since only 26 articles proved eligible for review. Our review initiative was limited by the specific focus on personality. Without claiming to have identified an exhaustive framework for the role of the individual in SMEs’ internationalization, we hope to encourage scholars to further explore the role of the
individual within the IE field by applying a behavioral and cross-disciplinary lens. Finally, as recommended by Cropanzano (2009), in order for a review article to be relevant, one approach is to define a topic that, though currently small, shows potential for future growth. This is exactly what we hope to have achieved with this SLR.

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Declarations

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