Culture's consequences for purchasing: comparing purchasing job ad requirements from different European countries with cultural models

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Abstract: This research analyses the cultural differences in purchasing and supply management (PSM) job requirements from three European countries. The PSM job requirements in job advertisements have been compared with two cultural models: GLOBE and Hofstede. The universalism claim is tested based on comparing requirements in job advertisements for purchasers from Austria, Belgium, and the Netherlands. According to Hofstede, these three belong in different cultural clusters but just to one cultural area according to the GLOBE model. Results reveal that about 20% of the observed requirements were shared and about 80% were dissimilar. Cultural differences exist in job requirements and have important implications for research and education practice. The neglect to take cultural differences into account needs to be overcome, so that accurate and practically fitting results can be obtained since a universal

purchaser does not to exist; country-specific cultural circumstances influence PSM job requirements.

Keywords: purchasing skills; job advertisements; cultural differences; procurement; purchasing and supply management; PSM; purchasing HR.

Reference to this paper should be made as follows: Stek, K., Zunk, B.M., Koch, V. and Schiele, H. (2022) 'Culture's consequences for purchasing: comparing purchasing job ad requirements from different European countries with cultural models', *Int. J. Procurement Management*, Vol. 15, No. 3, pp.305–339.

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This paper is a revised and expanded version of a paper entitled 'Challenges for Educators in PSM-Curricula -Quest for closing the gap with employers' requirements' presented at IPSERA, Balatonfüred, Hungary, 10–12 April 2017.

1 Introduction: the assumption of a standard profile for a universal purchaser

Researchers broadly agree that the individual skills levels of purchasing and supply management (PSM) professionals have a significant influence on their organisational capabilities and are positively related to organisational success (e.g., Feisel et al., 2011; Giunipero et al., 1999; Giunipero and Pearcy, 2000; Knight et al., 2014; Legenvre and Gualandris, 2018; Schiele, 2007; Tassabehji and Moorhouse, 2008; Tate and Ellram, 2012). Hence, organisations require a well-educated workforce, and standardised skills models are needed for these individuals' education and training. However, in the comparative management literature, researchers generally agree that business structures and practices vary across different countries and cultures (e.g., Hofstede, 2001; House et al., 2004; Inglehart and Welzel, 2010; Ogden et al., 2007; Schwartz, 2008; Terlutter et al., 2006). In this research, the term 'skill' is briefly used for items that form the broader construct of cognition, professional and interpersonal skills, intrapersonal traits and behaviour (Delamare-Le Deist and Winterton, 2005).

Cultural differences have been reported in the areas of outsourcing (Horn et al., 2013; Schoenherr, 2010), PSM decision-making (e.g., Pagell and Sheu, 2001; Roth et al., 2004), and buyer-supplier relationships (e.g., Cannon et al., 2010; Homburg et al., 2009; Kibbeling et al., 2009). For instance, Horn et al. (2013, p.27) investigated "the operational and financial implications and real effects of cost-oriented sourcing from China, based on the specific example of a European automotive OEM". They found that "more than three-quarters of the analyzed China-sourcing projects do not reap the expected benefits" due to "differences in cultural distance and the development level of the countries" [Horn et al., (2013), p.35]. Pagell and Sheu (2001, p.2783) suggest that "any theory that links buyer behaviours to supplier performance will need to consider a firm location", since the outcomes of their study "vary by region of the world". Kibbeling et al. (2009, p.354) found "that the cultural background of purchasers does affect their perceptions of trust, commitment and dependence in supplier relationships". Another example is Cannon et al. (2010, p.506). They found "that a buyer's trust of a supplier and the supplier's performance affect the buyer's long-term orientation toward the relationship", and add the finding "that the relative effects of trust and performance on long-term orientation are moderated by culture" and more precisely Hofstede's dimension of individualism vs. collectivism.

Nevertheless, as described more extensively in the theoretical background section, the results of the literature review show that no attention has been given to cultural deviations in PSM competencies. Moreover, universalism also seems to apply to practitioner assumptions, such as those made by the overarching union of national PSM associations, the International Federation of Purchasing and Supply Management (IFPSM). The IFPSM has published a 'Global Standard in Purchasing and Supply Management' (GSPSM) for professional education, which, as the name already indicates, rests on an assumption of universal validity (Brennan and Crowe, 2012). The GSPSM does serve as a standard in higher education and is "awarded to programmes of learning, which are of Bachelor degree level or equivalent and which are typically of three to four years duration" [Brennan and Crowe, (2012), p.1].

Concluding that scholars and PSM practitioners' associations seem to have overlooked the influence of cultural differences, the question arises whether industrial actors in their human resources (HR) practice take cross-cultural differences in account in

the design of the descriptions of required skills for purchasing managers. These descriptions are typically expressed in job advertisements.

Several studies in the peer-reviewed literature have been carried out to examine the requirements cited in online job postings in the field of supply chain management. However, these studies have thus far been geographically limited to the USA (Radovilsky and Hegde, 2012; Radovilsky et al., 2007; Rossetti and Dooley, 2010; Sodhi et al., 2008), Anglophone (Canada, the UK, and the USA), and Asian countries (China, India, Malaysia, and Singapore) (Shou and Wang, 2015), although a single country study has been conducted in Europe (Serbia) (Cvetić et al., 2017).

Researchers have ignored mainly international or cultural differences in these studies (Birou et al., 2016; Shou and Wang, 2015). Only the research of Shou and Wang (2015) included a multi-country comparison. Although it was not the focus of research, differences were identified in four categories by Shou and Wang (2015, p.11). They speculated that "culture may be an underlying reason for the (…) differences. More in-depth studies are still necessary to explore these differences further", referring to Hofstede (1984) as a suggestion for further research to address this literature gap.

This study was conducted to close this gap. Previous researchers did not conclusively test the generalist assumption made in the available skills models, although it was often implicit. Previous research has also generally applied to specifically supply chain management, which often translates as 'logistics' rather than as 'purchasing management'. This study was carried out to identify cultural differences or similarities in job requirements in PSM. As an object of analysis, the focus is on European job requirements.

The discourse in the literature on cultural comparisons appears to be dominated by Hofstede and the GLOBE project (e.g., Hofstede, 2006, 2010; Hofstede et al., 2010; House et al., 2004, 1999; Smith, 2006), and a watershed seems to have formed between the two groups of adherents. Although the GLOBE model is rooted in Hofstede's model, the outcomes of applying these two models deviate strikingly from one another, especially in the approach taken to cluster European countries.

The GLOBE research group (House et al., 1999; Mensah and Chen, 2014) distinguishes different European cultural clusters: 'Germanic Europe', 'Latin Europe', 'Nordic Europe', 'Eastern Europe', and 'Anglo Cultures' (see: Table 1). Hofstede, on the other hand, characterised the European continent in general and these three countries in particular as culturally diverse (Hofstede et al., 2010). Referring to the cultural dimensions of Hofstede, three different European cultural clusters are presented by Kale (1995, p.40) who labelled the clusters as follows: an 'Anglo-Saxons and Germanics' cluster, a 'Roman language countries' cluster, and a 'Scandinavian' cluster (see: Table 1). "This classification yields two outliers: Italy in Cluster 1, and the Netherlands in Cluster 3" [Kale, (1995), p.40].

Kale (1995, p. 40) continues: "Italy, as a Roman-language speaking country would be expected to fit better in cluster 2. However, if Italy were divided into north and south, it would be perfectly adapted to the existing classification". The south part of Italy would belong to cluster 2, and the north of Italy would fit cluster 1. "The Netherlands, based on geographic proximity, would appear to fit better with cluster 1, but its centroid's distance to Norway is almost the same as Belgium's is to France". Therefore, "the Netherlands was assigned to the 'Scandinavian' cluster" [Kale, (1995), p.40].

Table 1 Matrix combining the GLOBE and the Hofstede cultural clusters

		Hofstede's clusters in Europe based upon Kale (1995)			
		'Anglo-Saxons and Germanics' cluster	*'Roman languages' cluster*	*'Scandinavian' cluster*	*Not defined by Kale (1995)*
GLOBE cultural clusters in Europe (Gupta et al., 2002; Mensah and Chen, 2014)	'Germanic Europe'	Austria, Germany, Switzerland	Belgium	Netherlands	Liechtenstein, Luxembourg
	'Latin Europe'	Italy	France, Spain, Portugal		Israel
	'Nordic Europe'			Denmark, Finland, Norway, Sweden	Estonia, Faroe Islands, Greenland, Iceland, Latvia, Lithuania, Norway
	'Eastern Europe'		Greece		
	'Anglo Cultures'	Ireland United Kingdom			Australia, Canada, USA, New Zealand, South-Africa (white sample)

As shown in Table 1, disagreement exists regarding European cultural clusters and the positions in the specific clusters; the outcomes of the two different cultural models deviate. The GLOBE research placed Austria, Belgium, Germany, Liechtenstein, Luxemburg, the Netherlands and Switzerland in one 'Germanic Europe' cluster (House et al., 2004). Thus, according to the GLOBE model, a universal profile would exist among these countries. Based upon Hofstede's dimensions, Kale (1995) distinguished three European clusters that found Austria in the 'Anglo-Saxons and Germanics' cluster, Belgium in the 'Roman languages' cluster and the Netherlands in the 'Scandinavian' cluster.

Therefore, in this study, the countries of Austria, Belgium, and the Netherlands were taken as objects of analysis, because these three countries were assigned to three different clusters based on Hofstede's cultural dimensions (Kale, 1995). More precisely, 100 Austrian PSM job ads, 100 Belgian, and 100 Dutch are compared.

Moreover, these three countries' choice is justified due to their similar GDP per capita (OECD, 2020) and structural characteristics (Banai, 2010). Furthermore, all three are members of the European Union (EU), unlike Switzerland, which could have served as an alternative country for Austria in this study. Austria, Belgium, and the Netherlands are comparable, 'smaller' EU countries with similar populations, as opposed to, for instance, Germany or France.

Indeed, Germany ('Anglo-Saxons and Germanics' cluster) and France ('Roman languages' cluster) could have been compared. However, all other larger countries with a similar population and GDP belong to the same clusters, such as the UK and (Northern)

Italy ('Anglo-Saxons and Germanics' Hofstede cluster) or Spain and (Southern) Italy ('Roman language' Hofstede cluster and 'Latin Europe' GLOBE cluster). Next to Germany and France, a third comparable, larger country would therefore not be available in the European context.

The contradiction between the cultural clusters led to the development of the following research questions:

RQ1 Does a universal, shared, ideal job profile exist for a purchaser?

Moreover, if differences between the countries would be detected:

RQ2 Which differences exist in the employers' PSM job requirements?

RQ3 How can these differences in PSM job requirements be explained?

This research contributes to PSM practice in that it provides a list of the most commonly required skills that differ among the diverse countries and cultural areas. It contributes in practical terms to the work of practitioners involved in the design of PSM curricula in higher education and company training sessions. The empirical detection of substantial differences among the countries in job skills requirements is a crucial PSM research contribution in that it makes PSM scholars aware that the prevailing universalistic approach may be overly simplistic and not entirely realistic. Instead, PSM (skills) researchers would benefit in the future from leading discussions on how this approach is culturally embedded and pro-actively conducting research on cultural influences.

This research also contributes to the comparative management literature in that it is the first to compare the needs of European employers in the field of PSM and – in its empirical content – to reveal cultural differences. The findings suggest that the Hofstede model is still relevant and could be more effectively used to explain the detected differences than the GLOBE model.

This paper is organised as follows: in the second section, PSM skills requirements are discussed, and the literature on culture and culture models is reviewed to establish a basis for international comparison. In the subsequent methods section, a description in detail is given on how job advertisements were used as empirical input and explain how the sample of 300 online job advertisements was collected and processed. From each of the three countries, 100 PSM job ads have been analysed. The results are presented in the fourth section. The final sections include the conclusions, a discussion on further research, the implications of the findings, and the limitations of the study.

2 Theoretical background: results of a literature review on culture, culture models, PSM skills requirements, and research in job advertisements

2.1 The literature on PSM job requirements seems to indicate cultural unity

A keyword search was performed in Scopus ('buyer', 'purchase', 'purchaser', 'purchasing', 'procurement', 'skill', 'skills', 'competence', 'competency' and 'competencies' and led to the search string 'buyer OR purchas* OR procurement AND competenc* OR skill*'), which generated an initial set of 1,007 articles. Articles that placed a focus on organisational (i.e., non-individual) competencies or capabilities in the

described fields or on consumer purchasing skills or family household purchasing budget practices were discarded, as were minor citations. A total of 33 relevant scientific studies were identified, published from 1987 to 2020. From these articles, skills requirements were obtained (see Table A1 of Appendix), and a list of PSM job requirements was derived (displayed partly in Table 2).

Table 2 PSM requirements mentioned at least once per article in the scientific PSM job requirements literature (1987–2019)

PSM knowledge	82%	Problem-solving skills	58%
Negotiation skills	76%	Decisiveness/capacity to make decisions	52%
Business knowledge and experience	73%	Organisational skills	49%
Leadership skills/personnel management	73%	Risk management	42%
Relationship management	67%	Persuasive skills	42%
Holistic thinking / having an overview	67%	Conflict resolution	42%
Analytical thinking	64%	Customer orientation	42%
Communication skills	61%	Curiosity/will to learn/learning ability	33%
Strategic thinking	58%	Creativity	33%
Computer literacy	58%	Legal knowledge	33%
Team ability	55%	Industry knowledge	33%

Source: Based upon the requirements mentioned in: Anderson and Katz (1998), Baily et al. (2008), Bals et al. (2019), Burt et al. (2003), Carr and Smeltzer (2000), Carter and Narasimhan (1996), Cavinato (1987), Cousins and Spekman (2003), Cruz and Murphy (1996), Dowd and Liedtka (1994), Eltantawy et al. (2009), Faes et al. (2001), Flöthmann et al. (2018a), Giunipero (2000), Giunipero et al. (2005, 2006), Giunipero and Handfield (2004), Giunipero and Pearcy (2000), Keough (1993), Kern et al. (2011), Killen and Kamauff (1995), Knight et al. (2014), Kolchin and Giunipero (1993), McKeefry (1998), Mulder et al. (2005), Muller (2001), Murphy (1995), Pagell et al. (1996), Schulze et al. (2019), Tassabehji and Moorhouse (2008), Tatham et al. (2017), Trent and Monczka (2003), Zawawi et al. (2014)

The data were subjected to further statistical analyses. Fawcett and Rutner (2014, p.180) stated that PSM practices in firms have "evolved dramatically over the past generation". Hence, the sample of the scientific PSM literature was divided into 'old' (1987–2001; n = 16) and 'new' (2003–2020; n = 17) sub-samples. It was interesting to note that no significant differences could be found among the specific requirements by applying a t-test, indicating a certain stagnation in academic development.

Table 2 displays PSM job requirements and how often these were mentioned at least once in a single scientific PSM article from the entire set of articles. The top rankings indicate a profile of a PSM professional who has accumulated knowledge (i.e., displays knowledge and experience) in PSM and business; who can negotiate, network, and communicate; who can be both a team leader and member; who can think both analytically and holistically; and who can work with computer systems.

Interestingly, international or (cross-)cultural awareness was mentioned as a requirement for purchasers in only nine of the 33 articles (i.e., Bals et al., 2019; Faes

et al., 2001; Gammelgaard and Larson, 2001; Giunipero, 2000; Giunipero and Handfield, 2004; Pagell et al., 1996; Tassabehji and Moorhouse, 2008; Tatham et al., 2017; Trent and Monczka, 2003). Most authors seemed to assume that those job requirements as such would not be different in separate cultural settings.

Faes et al. (2001), for instance, recognises that interest in different cultures is vital and groups this skill in a category together with 'self-discipline', 'environmental awareness' and 'extroversion'. Tassabehji and Moorhouse (2008) and Pagell et al. (1996) leave the 'cultural awareness' ability undiscussed and rank it as an item in an 'interpersonal skills' category. Giunipero (2000, p.24), however, quotes two CEOs on global sourcing and different cultures: "I don't think most people *really* understand what global *really* is. It's not taking your culture and transplanting it someplace else", and "I believe we are going to have to understand cultures in much more depth". According to Giunipero and Handfield (2004, pp.51 and 57), it is essential "to have some sense of the different cultures" and "supply managers should be fully debriefed on cultural norms in various international markets as well as the culture of organizations in other countries". Bals et al. (2019, p.9) associate 'cultural awareness' with 'a more balanced buyer-supplier relationship', which makes purchasers 'more 'reasonable' in negotiations'.

This outcome is remarkable: at the one hand, cultural differences are recognised in studies on PSM job requirements in the sense that purchaser should be aware of cultural differences, at the other hand however it is *not* concluded that this concept would lead to deviating PSM skillsets in various countries under different cultural circumstances.

In the next section, a description of the cultural models of Hofstede and GLOBE and international differences is given to establish a basis for the comparison of different international samples.

2.2 Culture as a collective level construct

PSM skills requirements are for this study, combined with the concept of culture. Culture is an intangible concept that is Hofstede (1980a, p.15) explained as a social system: "Social systems can exist only because human behavior is not random, but to some extent, predictable". The prediction of the behaviour of a person in a situation assumes "that each person carries a certain amount of mental programming that is stable over time and causes that person to display more or less the same behavior in similar situations" [Hofstede, (1980a), p.15]. Cultural sciences observe human behaviour that is inferred from "the presence of stable mental programs" [Hofstede, (1980a), p.15].

In the GLOBE research House et al. (1999, pp.13–14) defined culture as the agreement among members of collectives concerning psychological attributes (i.e., "motives, values, beliefs, identities, and interpretations or meanings of significant events that result from common experiences of members of collectives and are transmitted across age generations") and the agreement regarding "commonality of observed and reported practices of entities such as families, schools, work organizations, economic and legal systems, and political institutions".

Hofstede (1980a) distinguishes three levels of uniqueness in mental programs: the universal, the collective and the individual level. "The universal level of mental programming, which is shared by all, or almost all, mankind. This is the biological 'operating system' of the human body. (…) The collective level of mental programming is shared with some but not all other people". This level belongs to people in a specific category or group and can deviate from the programming of those that belong to other

categories or groups. Finally, the individual level of social programming is defined as the genuinely distinctive part: "no two people are programmed exactly alike, even if they are identical twins reared together. This is the level of individual personality; it provides for a wide range of alternative behaviors within the same collective culture" [Hofstede, (1980a), pp.18–19].

Hence, culture is a social system regarding the collective programming of the mind. A well-known definition of culture stems from Hofstede that culture is the "collective programming of the mind that distinguishes the members of one group or category of people from others" [Hofstede, (2001), p.9]. More specified Geertz (1973, p.89) defined the concept of culture as "a historically transmitted pattern of meanings embodied in symbols, a system of inherited conceptions expressed in symbolic forms by means of which men communicate, perpetuate, and develop their knowledge about and attitudes toward life", while House et al. (1999) made a distinction between *societal culture* ("commonly experienced language, ideological belief systems (including religion and political belief systems), ethnic heritage, and history") and *organisational culture* ("commonly used nomenclature within an organisation, shared organisational values, and organisational history") [House et al., (1999), p.14].

In all these definitions, (national) culture is seen as "an important regulator of both the quality and the aggregate rates of entrepreneurial entries across countries" [Autio et al., (2013), p.334]. However, Baskerville (2003, p.6) alerts that "cultures do not equate with nations". In the Middle East, 35 different cultures are identified in 14 nations; 98 different cultures in 48 African countries; and 81 cultures in 32 Western European countries. Moreover, "in North America, 147 Native American cultures and nine North American folk cultures are detailed" [Baskerville, (2003), p.6].

Nevertheless, evidence exists that national culture causes distinct behaviours, and also in business (Autio et al., 2013; Cagliano et al., 2011; Pemer et al., 2014). Pemer et al. (2014) found that different aspects of national culture influence the steps in the purchasing process and refers to Hofstede's dimensions 'uncertainty avoidance' that it 'influences the early steps in the purchasing process (specify, select and contract)' and 'Masculinity-Femininity' that affects 'the later steps (order, expedite and evaluate)' [Hofstede, (1980c), p.43; Pemer et al., (2014), p.11]. Pemer et al. (2014, p.11) conclude that these outcomes imply "further attention to the complex nature of organizational culture and how its' different dimensions interplay with different stages and aspects of the purchasing process".

Thus, culture is defined as a social system (e.g., Hofstede, 1980a). However, to understand social systems, models are used as "lower-level systems that we can better understand and that we substitute for what we cannot understand. We simplify because we have no other choice. It is in this simplification that our subjectivity enters the process". Hence, to understand culture and cultural difference, models are used to define and detect specific cultural differences can be. In comparative management, several models have been proposed for this purpose, with the most popular models (Banai, 2010) including those of Hofstede (e.g., Hofstede, 1980a, 1994; Hofstede et al., 2010), Schwartz (1992, 1994, 2014), Trompenaars and Hampten-Turner (e.g., Hampden-Turner and Trompenaars, 2006; Trompenaars, 1996), and GLOBE (e.g., House, 1998; House et al., 2004; Javidan and House, 2002).

Cagliano et al. (2011) proposed using two cultural models at the same time: the cultural dimensions of Hofstede and the GLOBE project. These two models have also been referred to as 'fighting elephants' by Smith (2006), as Hofstede's cultural model

was considered to be the leading model until the GLOBE study extended and updated it (House et al., 2004). Although GLOBE was inspired by the work of Hofstede (1980a), the outcomes differ and, thus, provide a broad explanatory framework that is useful in the context of this research.

2.3 Sketching Hofstede's cultural model and the GLOBE project

Hofstede's original model can be used to distinguish four cultural dimensions: 'individualism-collectivism', 'power distance', 'uncertainty avoidance', and 'masculinity-femininity'. Hofstede later added, 'long-term orientation' and 'indulgence' (Hofstede, 1980c, 1983a, 1983b; Hofstede et al., 2010). The 'individualism-collectivism' dimension refers to the sense of belonging and being loyal to a group or being individualistic (Hofstede, 1983b). 'Power distance' refers to the acceptance of the spread of power within a society (Hofstede, 1983b).

A high score on the 'masculinity-femininity' dimension is a characteristic of a competition-driven, 'masculine' culture. In a 'masculine' society, another way of describing success is 'being the best', whereas 'seeking quality of life' and 'doing the things one likes' are phrases that are synonymous for success in a 'feminine' society, which is characterised by a low score on the 'masculinity-femininity' dimension (Hofstede, 1984).

Hofstede defined 'uncertainty avoidance' as: "the extent to which the members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions that try to avoid these" [Hofstede, (1980c), p.45]. Hofstede extended the model with a 'long-term orientation' that describes the societies' preferences for traditions (Hofstede, 2001) and 'Indulgence' that "stands for a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun" [Hofstede et al., (2010), p.281].

The GLOBE project implemented Hofstede's dimensional paradigm of national cultures and extended the first five dimensions of Hofstede to nine. GLOBE did not change 'power distance' or 'uncertainty avoidance', but Hofstede's 'long-term orientation' was renamed as a 'future orientation' (i.e., the degree to which behaviours are performed in an attempt to control the future, such as investing, planning, and postponing gratification). GLOBE split up Hofstede's 'individualism-collectivism' into 'in-group collectivism' (i.e., the degree to which pride, loyalty, and cohesiveness are expressed in families, groups, or organisations), on the one hand, and 'institutional collectivism' (i.e., the degree to which collective distribution of resources is encouraged and rewarded in contrast to individual distribution), on the other hand.

Hofstede's 'masculinity-femininity' dimension was divided up by GLOBE into four unique dimensions. Firstly, 'assertiveness' refers to the degree of individual assertiveness, confrontation, aggressiveness, and straightforwardness. Secondly, 'performance orientation' refers to the degree to which individuals are encouraged and rewarded for performance improvement and excellence by society. Thirdly, 'gender egalitarianism' refers to the degree to which gender-role differences are reduced in society. Fourthly, the 'humane orientation' refers to the degree to which individuals treat each other in fair, altruistic, friendly, and caring ways and are kind to each other (Hofstede, 2010; Terlutter et al., 2006). The GLOBE study surveyed these items twice: firstly, by asking respondents to describe their own (organisational) culture 'as it is', and, secondly, to describe it 'as it should be'. Whereas Hofstede first collected four and

eventually five and even six scores, the GLOBE project presented eighteen scores per country, i.e., cultural area.

Although both cultural models share many features, the methods used to cluster the countries differ. These are explained in the next section.

2.4 Differences in how Western European nations are culturally clustered using the GLOBE project and Hofstede's model

The GLOBE project has divided countries with similar cultures into ten cultural clusters: *Confucian Asia*, *South Asia*, *Arab*, *Sub-Sahara Africa*, *Latin America*, *Anglo Cultures*, *Germanic Europe*, *Latin Europe*, *Eastern Europe*, and *Nordic Europe* (Gupta et al., 2002; House et al., 2002; Mensah and Chen, 2014). The countries included in the analysis of the job ads all belong to one cultural cluster according to GLOBE (i.e., to Germanic Europe).

Hofstede (1983a, p.44) detected a "Relationship between national wealth and individualism" by comparing countries by plotting the cultural dimension 'individualism-collectivism' and GNP per capita of different countries; Hofstede (1983a, p.44) concludes: "It is evident that wealthy countries are individualist and poor countries are collectivist".

Moreover, Hofstede (1980c) plotted the dimensions 'uncertainty avoidance' and 'masculinity-femininity' and found different clusters. One cluster with countries with a high level of 'uncertainty avoidance' and with lower levels on the 'masculinity-femininity' is formed by the Netherlands, Denmark, Sweden, Norway and Finland. Strong 'Masculinity' is found in Austria, Germany, Switzerland, Italy and Great-Britain and Ireland, combined with medium levels of 'uncertainty avoidance'. strong 'uncertainty avoidance' is found in Belgium, France, Spain and Greece, combined with medium levels of 'masculinity'. However, clustering based upon the total number of cultural dimensions has been performed by other scholars.

Three clusters were found as part of a marketing study conducted on 17 European countries by Kale (1995), who described an 'Anglo-Saxon and Germanics' cluster, a 'Roman languages' cluster, and a 'Scandinavian' cluster. Cagliano et al. (2011) found the same clusters in a study that contained 13 European countries (and eight non-European countries): an 'Anglo-Saxon countries and Germany' (e.g., Germany, Ireland, the UK; Austria was not included) a 'Latin European' (e.g., Belgium), and a 'North European' (e.g., the Netherlands) cluster (as well as an 'emerging countries' cluster). For this research Kale's (1995) work is replicated, resulting in a similar clustering, using squared Euclidean distance and Ward's method.

In the literature review, it appeared that:

1 an assumption of universal validity seems to have been made in the published literature for the purchasing skills identified

2 practitioner conventions, such as the IFPSM's 'global standard', often seem to apply this universal validity to the design professional education (Brennan and Crowe, 2012)

3 this assumption can be supported, and at least for the sample of three European countries, by the GLOBE project's identification of a homogenous cultural cluster.

Based on these observations, ;the following hypothesis is developed: There is cultural unity in European PSM job requirements, i.e., the job ads in the compared countries will have the same content, calling for purchasers with the same set of competencies'.

3 Methods and data analyses: cultural clusters and mapping skills and competencies

The analysis of job ads is a well-established form of inquiry in skills research, which is easily replicable, accessible for time-series studies, and may have high validity because the recruiting firms themselves present their requirements (Kennan et al., 2006). As part of this research, in total, 300 PSM job ads were collected via online platforms and sorted in the random ranking order in which the online platforms presented these ads when the search key 'purchaser' was entered (in the Dutch, English, French, and German languages). The online platforms accessed were: karriere.at (http://www.karriere.at) for the 100 Austrian job ads; Indeed (be.indeed.com), StepStone (http://www.stepstone.be), Monster (jobview.monster.be), Michael Page (http://www.michaelpage.be), and Hudson (jobs-eu.hudson.com) for the 100 Belgian job ads; and NEVI (http://www.nevi.nl), Monsterboard (http://www.monsterboard.nl) and Intermediair (http://www.intermediair.nl/vacature) for 100 job ads in the Netherlands. Because the same sites have been visited over the study period, and same job ads were placed on different platforms, duplicates were identified and subsequently discarded. Most advertisements were published by SMEs searching for purchasers who had experience levels ranging from no experience to two years and from three to up to ten years of experience, coded in this research as 'beginners' and 'advanced' (see Table 3).

Table 3 Sample and the division of working experience

	'beginner' 0-2 years of experience	*'advanced' 3-10 years of experience*	
Austria	7	93	100
Belgium	33	67	100
Netherlands	24	76	100
Total	64	236	300

Two multilingual researchers from Austria and the Netherlands collected the job ads written in the Dutch, English, French, and German languages. The researchers translated German, Dutch, and French job requirements into English. The 300 collected job ads contained an average of about 12 requirements, resulting in a comprehensive list of about 3,600 requirements that were matched with the best possible solution extracted from scientific PSM job requirement literature (see Table A1 of Appendix). However, most PSM job requirements listed in the advertisements did not resemble any requirements listed in the scientific PSM skills literature. In these cases, the requirements were matched with the 64 descriptions and about 180 underlying synonyms proposed by the HR competency model, as suggested by Heyse et al. (2004) and Erpenbeck and Scharnhorst (2005).

Fereday and Muir-Cochrane (2006, p.91) distinguish "deductive coding (derived from the philosophical framework) and inductive coding (themes emerging from participant's discussions)". Therefore, the conclusion is that initially, a deductive coding approach has been taken in this study. However, the listing of requirements in PSM job ads is more affluent than the PSM skills literature. Eventually, an inductive coding approach had to be followed.

Some items were discarded, for instance, language proficiency other than English. In the Netherlands, more than half of the ads required Dutch language proficiency. In Belgium, as a bilingual country, both languages were often demanded. Also, other languages were occasionally mentioned as Italian, Spanish, and Turkish. These were discarded. English as the lingua franca was considered to be 'foreign language proficiency'.

Moreover, some items were not discarded but could not be matched with the PSM skills literature or the HR skills model. These were items as the willingness to travel and have a bachelor's or master's degree in business administration or engineering. Eventually, about 3,400 requirements were left over, which is 11.3 per job ad.

For this research, the model appeared to be suitable for methodologically and systematically categorising the requirements used in business practice. Since two researchers were involved, both mapped a blind random sample of 30 job ads, which the other researcher then tested this sample to establish the reliability of the mapping method. This test did not reveal significant differences in the mapping results; however, slight differences in interpretation were resolved.

Eventually, next, to compare the 57 different job requirements that were mentioned in the 300 job advertisements the Pearson chi-square results were calculated for each of the requirements using SPSS, performing cross-tabulation analyses to analyse the differences and common grounds the three countries.

Based on insignificant and significant Pearson chi-square results, this resulted in a list of common grounds and a list of deviating requirements. De Veaux et al. (2005) note that chi-square analyses are applied for hypothesis testing. The larger the chi-square statistic, the more the observed counts do not match the expected. Hence, the chi-square test outcome is one-sided. In cases that the calculated statistic value shows insignificant p-values, the null hypothesis of equality is rejected.

Next, to compare the job requirements that deviated from one another, a cell-wise residual contingency analysis was performed by squaring the individual adjusted residual Z-score per cell in the cross-tabulation. Subsequently, the associated p-values per country and the experience level for each deviating job requirement were calculated to determine the significant differences. They were divided by three, which represents the number of observations (in this case the three observations per skill item in each of the three countries) per requirement as described by Beasley and Schumacker (1995) and García-Pérez and Núñez-Antón (2003). The alpha was set at $p > 0.05$, and for the Pearson chi-square analyses, the null hypothesis (H0) was that an equal distribution of averages per skill in the three countries would be expected since the literature gives evidence that universal PSM skills profile would exist. The alternative hypothesis (HA) was the opposite, i.e., the unequal distribution of averages per skill in the three countries.

4 Results: research questions and testing the proposition and hypotheses

4.1 RQ1: Differences between the job advertisements leading to the rejection of the hypothesis that a 'universal purchaser' exists

The entire list of 57 requirements derived as described above in the 300 job adverts is displayed in Table A2 of Appendix. As shown in Table 4, five common grounds were identified in the observed requirements. Employers in Austria, Belgium, and the Netherlands agreed that having PSM job experience and knowledge and having communication skills are essential, followed by being result-oriented, being a team player (team ability), and being accurate and precise.

Table 4 Common grounds found in the 300 PSM job advertisements

Job requirements	*N*	*Pearson Chi-square*	*Sign.*
PSM job experience and knowledge	236	5.879	0.053
Communication skills: ability to communicate	142	5.803	0.055
Result-orientated action-taking: being result driven	133	1.162	0.559
Team player - having team spirit: the ability to be on a team	106	4.581	0.101
Accuracy and precision	54	4.202	0.122
Total	671		

The observed 57 job requirements were counted 3,395 times in the 300 job advertisements and the five common grounds requirements 671 times (i.e., 19.8% of 3,395). One striking result of this research is that only 19.8% of the total number of the observed requirements were shared; this means that 80.2% of the observed requirements were unique (i.e., in 2,724 of the cases), and in the other 52 job requirements, they were not.

Based on these findings, RQ1 has to be answered negatively: In this study's sample, there is *no* evidence found that a universal PSM job profile exists. The hypothesis, therefore, also has to be rejected. There is *no* cultural unity in this study's sample of European PSM job requirements, i.e., the job ads in the compared countries have different content.

Based upon the PSM job requirements extracted from the scientific literature and based on the practitioners' standards and the GLOBE clustering results, (almost) no significant differences among Austrian, Belgian, and Dutch PSM job ads requirements would have been expected. However, about 80% of the observed requirements were unique. A more detailed description of these cultural differences, which were the subject of the second research question, appears in the following section.

4.2 RQ 2: analysis of the differences in PSM job profiles in Austria, Belgium, and the Netherlands

The importance of one-fifth of the requirements collected from job advertisements was shared, while no agreement was found for about four-fifths of the requirements in the three countries. Firms in each country appear to share a specific country-specific PSM job profile. However, based on the 15 most commonly mentioned requirements per country, a purchaser, in general, must have: English language proficiency; PSM job experience and knowledge; computer literacy; at least a bachelors' degree; result-orientation; flexibility; persistence; communicative skills; ability to negotiate; being a team player; analytical skills; discipline; business and industry experience and knowledge, and devotedness.

The job ad requirements for 'beginners' slightly deviated and asked explicitly for accuracy, independency and persuasiveness, instead of being persistent and devoted, and having business experience

Statistically significant deviations between countries were noted, even though a widespread agreement on the general importance of these features was observed (see: Table 5). For instance, English language proficiency is mentioned much less frequently in the Netherlands. Negotiation skills and legal knowledge are required more often in Austria. Table 5 illustrates whether the 'beginner' applicants, the 'advanced' applicants, or both are the cause of the significant difference. Indeed, the functional level is examined and could distinguish beginners with up to two years of experience from advanced applicants with three up to ten years of experience.

Most of the deviating requirements were identified in job ads that demanded advanced PSM personnel. However, the requests for flexibility, devotedness, persistence, discipline, and stress avoidance were found in the Austrian 'beginners' and 'advanced' ads but rarely appeared in the other countries, which also counts for 'responsibility' in 'advanced' job ads.

Belgian job ads referred more often to having experience in the focal industry, being independent and customer-oriented, and having analytical, organisational, and problem-solving skills. In the Netherlands, employers more often sought applicants who were proactive, pragmatic, and energetic and had persuasive abilities and a sense for diplomacy, social manners, and organisational-political sense.

Remarkably, employers in Austria often required applicants to have a technical degree and technical knowledge and experience, while this particular feature seemed to be of minor importance to employers in other countries. Here, a different industrial structure may play a role, hinting at the much larger production focus in Austria as compared to the focus of Belgian and Dutch industries. Hence, to explain the identified differences, structural and cultural aspects are described in more detail in the next section.

Table 5 National differences – additional requirements per country

Job requirements per country	*n*	*Mean*	*Pearson Chi-square*	*Sign.*
Austria				
English language proficiency (advanced)	94	80.0	24.500	0.000
Flexibility (beginners and advanced)	71	34.7	87.451	0.000
Negotiation skills (advanced)	66	46.7	23.813	0.000
Devotedness (beginners and advanced)	65	22.7	153.613	0.000
Persistence (beginners and advanced)	62	39.0	35.057	0.000
Discipline (beginners and advanced)	61	27.0	88.382	0.000
Computer literacy – general (advanced)	56	44.0	10.065	0.007
Technical education (BSc or MSc degree) (advanced)	42	21.3	38.652	0.000
Business and trade knowledge and experience (advanced)	36	27.3	10.606	0.005
Willingness to travel (beginners and advanced)	34	19.0	22.222	0.000
Legal knowledge (advanced)	32	19.0	20.403	0.000
Responsibility (advanced)	32	15.0	34.353	0.000
Technical knowledge and experience (advanced)	31	21.0	10.970	0.004
Stress avoidance – the ability to handle stress (beginners and advanced)	29	18.3	11.532	0.003
Belgium				
Analytical skills (advanced)	49	31.0	34.035	0.000
Experience in the focal industry (advanced)	39	29.0	7.382	0.025
Customer-oriented (advanced)	30	21.0	12.417	0.002
Independence – sole-responsibility (advanced)	27	15.7	29.720	0.000
Creative, innovative and handling complexity skills (advanced)	26	18.7	34.953	0.000
Problem solving skills (advanced)	25	14.0	15.449	0.000
Organisational skills (advanced)	24	16.0	14.435	0.001
The Netherlands				
Creative, innovative and handling complexity skills (advanced)	30	18.7	34.953	0.000
Proactive – taking initiative (beginners and advanced)	28	19.7	8.144	0.017
Energy drive (advanced)	27	16.7	14.448	0.001
Pragmatic – hands-on mentality (advanced)	27	15.7	15.721	0.000
Persuasiveness (advanced)	23	13.7	15.312	0.000
Diplomacy, social manners and political sense (advanced)	21	9.0	26.374	0.000

Notes: From each country, 100 job ads were selected; n stands for the absolute number a requirement is found at least once in a job ad. The mean represents the total number of the requirement in the entire set of 300 job ads divide by three (countries). The table differentiates between requirements found in job ads aimed at beginners and advanced. Behind every requirement is mentioned whether the significant difference is observed for either the ‘beginners’, the ‘advanced’ or both.

5 Discussion – explaining the differences between job ads and managerial implications

5.1 Structurally explained differences: industry structure, associations, and ethical composition

The third research question referred to explanations for the identified differences between the job ads published in the three analysed countries. Firstly, the structural differences identified between Austria, Belgium, and the Netherlands will be described, which potentially contribute to deviations among the PSM job profiles.

Belgium and the Netherlands are trading countries situated along the shore of the North Sea. Both possess significant sea harbours (notably Antwerp in Belgium and Rotterdam in the Netherlands), whereas Austria is an alpine country with an industrial, manufacturing-oriented tradition (CIA, 2019; OECD, 2020). The service sector and industry supply 70.7% and 28.0% of the GDP in Austria, respectively, while the service sector covers 77.0%, and the industry sector, 22.3%, of the GDP in Belgium. In the Netherlands, these sectors represent 79.6% and 18.8% of the GDP, respectively (CIA, 2019). The Austrian industry continually adds more value to the Austrian economy, and the demand for technically (schooled) personnel could continually increase as a consequence. Austrian employers required applicants with technical knowledge and a technical degree more often. The contributions from the service sector and industry could explain this higher demand for technically educated personnel in Austria.

English language proficiency was mentioned in 80% of the job ads in all three countries (see Table A2 of Appendix, rank 1), but 94% of the Austrian employers emphasised the English-language proficiency requirement. The English language proficiency index rate in all three countries is 'very high'; however, Austria's was lower than that in the Netherlands but higher than that in Belgium [EF EPI, (2020), p.6]. Belgium, however, is a bilingual country, and Belgian employers required either (mostly) bilingual proficiency in French and Dutch (Flemish) or (in some cases only) English proficiency. In the Netherlands, employers required language proficiency in English in only 56% of the ads.

The Austrian demand for 'willingness to travel' (see: Table 5 and Table A2 of Appendix) might be explained by the fact that the area of Austria is twice that of the Netherlands and 2.5 times that of Belgium.

5.2 Culturally explained deviations: masculinity vs. femininity

The sample countries were classified into three European cultural clusters as described by Kale (1995) (i.e., 'Anglo-Saxon and Germanics', 'Roman languages', and 'Scandinavian' clusters), but placed in one cluster in the GLOBE project (i.e., 'Germanic Europe'). Analysing the differences between the three countries (which represent their respective cultural clusters, according to Kale), Austria's score of 'Masculinity' in the Hofstede model is much higher than the Belgian and Dutch scores (see Table 6).

Table 6 Hofstede's cultural dimension for Austria, Belgium, and the Netherlands on a scale from 0 to 100 (Hofstede et al., 2010)

	Austria	*Belgium*	*Netherlands*
Power distance	11	65	38
Individualism-collectivism	55	75	80
Masculinity-femininity	79	54	14
Uncertainty avoidance	70	94	53

Hofstede's dimension of masculinity-femininity is measured on a continuous scale that is "related to emotional gender roles" [Hofstede, (2006), p.883]. A high level in this dimension represents a 'masculine' culture and a lower level a 'feminine' culture. Hofstede described the highly 'masculine' and target-oriented elements in detail, which would significantly characterise especially the Austrian PSM job ad requirements. Regarding the Austrian requirements, and especially the personal attributes, the distinct 'masculine' requirements that were identified include, persistence, flexibility, assertiveness/poise and the most apparent target-oriented skill, 'being result-oriented', was found to be a highly ranked shared skill. Based on Hofstede (2001), the assumption is that these four requirements would form the 'masculine' construct from the complete set of requirements (see Table 7).

Table 7 Masculine requirements (masculinity-femininity dimension)

	Austria	*Belgium*	*Netherlands*
Result-orientated action-taking: being result driven	40	47	46
Persistence	62	23	32
Flexibility	71	16	17
Assertiveness/poise	18	11	2
Total	191	97	97

At the other side, the Netherlands rank low in 'masculinity' and therefore are ranking high in 'femininity' (see Table 6). In feminine societies, the dominant values are interpersonal relation oriented: "not showing off, putting relationships with people before money, caring about the quality of life and the preservation of the environment, helping others, in particular the weak, and believing that small is beautiful" [Hofstede, (1983a), p.46]. Regarding the Dutch requirements, and especially the personal attributes, the distinct 'feminine' requirements that were identified include building relations, networking skills, diplomacy, social manners and political sensitivity, open communication, openness and being accessible (see Table 8).

Table 8 Feminine requirements (masculinity-femininity dimension)

	Austria	*Belgium*	*Netherlands*
Building relations/networking skills	0	16	18
Diplomacy, social manners and political sensitivity	3	3	21
Open communication/openness/accessible	2	4	13
Total	5	23	52

As shown in Table 7, the sum of the frequencies identified for Austria is 191; for Belgium, 97; and for the Netherlands, 97. The scores for the constructs of these four requirements are about two times higher for Austria as compared with Belgium or the Netherlands. Belgium and the Netherlands have equal scores, both of which are significantly lower than the Austrian score. Contrary, as displayed in Table 8, the 'femininity' scores for Austria, Belgium and the Netherlands are respectively 5, 23 and 52. The conditions seem to be met, and the conclusion is that:

1 Austrian PSM job ads contain significantly more 'masculine' elements, such as target-oriented requirements and professional effectiveness skills

2 Dutch job ads contain more 'feminine' elements.

5.3 Culturally explained deviations: individualism vs. collectivism

Unlike the scores regarding masculinity-femininity, Austria's score on individualism-collectivism in the Hofstede model was lower compared to the Belgian and Dutch scores (see Table 5). Individualism-collectivism is also measured on a continuous scale and is "related to the problem of interpersonal ties" [Hofstede, (2006), p.883]. A high level in this dimension represents an 'individualistic' culture and a lower level a 'collectivistic'. Interestingly, the Belgian and Dutch ads both contained significantly more requirements that were related to 'solely responsible/independence'. It is an obviously 'individualistic' feature, and the Belgian and Dutch sets contained significantly more requirements regarding 'creativity/creative talent', the closely related 'innovation propensity', and the 'ability to handle complex situations'; these results indicate that Belgian and Dutch employers assume that handling complex situations and being innovative requires creative ability. For this reason, these requirements are clustered.

Creativity is strongly associated with individualistic cultures. The international research of Rinne et al. (2013) showed that cultures with higher 'individualism' rates in the Hofstede model were significantly more frequently associated with a construct of 'creativity' variables. Hofstede's finding that Belgium and the Netherlands have higher levels of 'individualism' seems to support this. The score on the individualism-collectivism dimension in the Netherlands is even higher than that in Belgium (see Table 6), which might help explain the Dutch higher score in terms of being 'proactive/taking the initiative' (Hofstede and Minkov, 2010; Rinne et al., 2013; Saad et al., 2015; Zha et al., 2006).

Examining the overall list of Dutch and Belgian requirements, and especially the personal attributes, the distinctly 'individualistic' requirements as having 'independence and sole responsibility', and 'proactive – taking the initiative' can be identified. Assuming that the construct of requirements was related to 'individualistic' (and 'non-collectivistic') skills, i.e., those directed toward self-development and creative skills, this construct consists of: having sole responsibility and independence; having creative talent; being innovative; being able to handle complex situations, and displaying the will to learn and being curious.

Table 9 shows that Belgium (104) and the Netherlands (130) gained significantly higher scores than Austria (41). The online PSM job ads posted in Belgium and the Netherlands contained significantly more individualistic, self-development-directed and creative skills and competencies as compared to those posted online in Austria. The score in Austria is about 30% to 40% of those in Belgium and the Netherlands.

Table 9 Individualistic requirements (individualism-collectivism dimension)

	Austria	*Belgium*	*Netherlands*
Proactive - taking initiative	19	12	28
Strategic and holistic thinking	16	14	22
Creativity, innovative and complexity skills	0	26	30
Independence - sole-responsibility	0	27	20
Persuasiveness	4	14	23
Will to learn and curiosity	2	11	7
Total	41	104	130

5.4 Culturally explained deviations: uncertainty avoidance

Hofstede (1980c, p.55) stated that "for strong uncertainty avoidance countries like Austria, working hard is caused by an inner urge – it is a way of relieving stress". 'Strong Uncertainty Avoidance' is according to Hofstede (2006, p.883) "related to the problem of dealing with the unknown and unfamiliar" or "to the level of stress in a society in the face of an unknown future" [Hofstede, (2011), p.8] and is associated with experiencing higher levels of anxiety and stress, and "there is an inner urge to work hard" [Hofstede, (1980c), p.47]. Moreover, countries with high levels of Uncertainty Avoidance display "Intolerance of deviant persons and ideas: what is different is dangerous" [Hofstede, (2011), p.10]. "Uncertainty avoiding cultures try to minimize the possibility of such situations by strict behavioral codes, laws and rules, disapproval of deviant opinions" [Hofstede, (2011), p.10]. The higher scores related to Austria on requirements like devotedness, discipline, responsibility and the ability to handle stress are in line with that (see Table 10). The Austrian scores are six times higher than those of Belgium and the Netherlands. Notably, the high Austrian scores are solely responsible for ranking items as devotedness and discipline in the top-15 of the 57 identified skills (see Table A2 of Appendix 2).

Table 10 Uncertainty avoidance requirements

	Austria	*Belgium*	*Netherlands*
Devotedness	65	0	3
Discipline	61	8	12
Responsibility	32	8	5
Stress avoidance: the ability to handle stress	29	12	14
Total	187	28	34

There seems to be enough evidence to reject the hypothesis of unity derived from the GLOBE model. This research could explain deviations on three of the four cultural dimensions of Hofstede. The fourth dimension could not be identified: power distance which is "related to the different solutions to the basic problem of human inequality" [Hofstede, (2011), p.10]. "Power Distance has been defined as the extent to which the less powerful members of organizations and institutions (…) accept and expect that power is distributed unequally. This represents inequality (more versus less) but defined from below, not from above" [Hofstede, (2011), p.10]. Uncertainty avoidance in the

workplace is characterised by the hierarchy that 'reflects existential inequality between higher and lower levels' and a 'wide salary range'; 'centralisation'; 'more supervisory personnel'; reliance on 'superiors and on formal rules' [Hofstede et al., (2010), p.76]. We did not find clues that power distance influenced job requirements. Power distance might very well be experienced in practice, but not in wordings of job ads.

The conclusion is that the Hofstede model can be more efficiently used to make forecasts and explain the cultural differences, which were identified among the three countries (Austria, Belgium, and the Netherlands). Herewith, the third research question is answered, explaining how differences in PSM job requirements may be due to cultural differences. These culturally explained differences are reflected via personal skills and mostly intrapersonal traits.

5.5 Scientific contributions and managerial implications of this research: taking culture seriously in PSM education and research

The findings of this research provide an up-to-date list of requirements found in European PSM job ads and places these in cultural contexts, which enriches the scientific literature. These findings also contribute in practical terms to the work of practitioners involved in the design of PSM curricula in higher education and company training sessions, as well as to the work of those involved in HR management in the field of PSM, individual PSM practitioners, and students.

The study findings contribute to the comparative management literature in that this is the first study to compare the needs of employers in the field of PSM and reveal cultural differences in European PSM job requirements. Previous studies in PSM skills have been conducted only in single countries and have rarely placed a focus purely on purchasing. Instead, previous researchers have more often broadly tried to address supply chain management in general, including logistics.

Regarding the 'fight between the elephants' (Smith, 2006), the findings support the application of Hofstede's cultural dimensions; these could be effectively used to explain the observed differences, which would not have been possible if the GLOBE model had been used. Also, the Hofstede dimensions seem to be relatively stable over time and are still currently applicable.

From a methodological perspective, these research findings support the idea that it is essential to distinguish between cultural and structural explanations when examining observed differences between the countries. The observed emphasis on creative requirements, as in the Dutch case, as compared to the emphasis on discipline and devotedness in the Austrian case, can be more clearly explained by cultural differences. The differing emphasis on technical vs. non-technical education, meanwhile, may be explained by structural differences that reflect differences in the production and service sectors. Comparative management scholars are encouraged to distinguish between cultural and structural factors that may explain such differences. These findings suggest that country indicators, such as GDP or education levels, need to be considered in comparative management studies (Banai, 2010).

Concerning PSM competencies research, this study contributes to the field in that it shows that what generally has been considered to be one homogenous phenomenon is a series of differentiated phenomena. Herewith, the question of why the skills discussed in the literature only partially overlap may also be explained (see Table 2), as do those requested in the analysed job ads (see Table A2 of Appendix). Based on the analysis of

the job ads, not a single, ideal, universal purchaser profile could be created. Instead, in each of the analysed countries, employers sought applicants with different profiles.

It is striking that only nine of the relevant 33 articles in the literature review (briefly) detected the need for cross-cultural awareness but overlooked that therefore also cultural differences might exist in PSM job requirements between countries. These findings alert future PSM competencies researchers that they need to address the comparative dimensions of their findings clearly; these will refer – at least to some extent – to their national cultural and institutional environments and may limit the generalisability of their findings. By considering these dimensions, PSM competencies research will gain more applicability and practical relevance, as many practitioners may have already noticed that the current PSM competencies research findings do not match their daily experiences, only because they are working in different cultural environments.

6 Limitations and further research: how representative are job ads?

In the present study, the compared countries, which appear to be relatively similar at first glance and have also been classified as such by some comparative management scholars. Still, substantial differences could be demonstrated. Therefore, it might be expected that such differences are even more pronounced among more distant countries. Future PSM (competencies) researchers would benefit from:

a acknowledging and discussing how the dimensions considered are culturally embedded

b purposefully shedding light on the cultural differences that shape purchasing practices in different countries while conducting comparative management studies.

From a content perspective, this paper contributes to the field in that it offers some of the first insights into cultural differences in purchaser's requirements, which, however, raises further questions and calls for more detailed research. In a 'feminine' culture, such as that in the Netherlands, employers are looking for independent purchasers with creative skills. In countries with a more 'masculine' culture such as Austria, employers emphasised assertiveness and the will to achieve targeted results. On the one hand, it might be interesting to discover how a purchaser recruited by a multinational firm in one of these countries performs when transferred to another country.

There might also be a company-internal dimension involved in the cultural differences observed. For instance, a purchaser who is more prone to use mediation to achieve goals may better be suited to promoting cross-functional collaboration in the firm. These collaborations were expected to be found more often in the Netherlands than in Austria and their respective, cultural clusters. A more assertive Austrian purchaser, on the other hand, may place a stronger emphasis on procurement objectives, such as savings.

At the same time, an external dimension should also be considered: In a global sourcing context, how do suppliers react when a 'mediating purchaser' from one company contacts them and, simultaneously, a more 'assertive purchaser' representing another buying organisation in another country competes for the supplier's resource allocation? While some research has been conducted on factors that influence the supplier's prime resource allocation and how preferred customers are chosen (Pulles

et al., 2016), little attention has been directed toward how cultural variables mediate these factors. An exemption is Kibbeling et al. (2009, p.354), who argue that the purchasers' cultural background affects the "perceptions of trust, commitment and dependence in supplier relationships", but also found inconsistencies that indicate that the corporate culture might also be an essential factor for explaining differences in buyer-supplier relationships.

Further, the use of job ads as an object of analysis also resulted in some potential study limitations. Using job ads as a source of cross-cultural information on the firms' requirements relies on three assumptions: the assumption is that:

1 firms purposefully formulate the ads, rather than merely copying and pasting past ads

2 employers will be able to recruit individuals who have the required abilities

3 once they are active in their job, the recruited purchasers will act accordingly and continue to do so for several years, rather than eventually displaying homogenous behaviour once they are confronted with international sourcing processes.

The comparison of job ads only enabled the detection of the differences in the expressed intention of employers to recruit purchasers. It was not possible to determine whether candidates who applied for the positions indeed fulfilled the desired job requirements. In the future, a primary data analysis based on survey and interview responses could be taken as a preferable approach to analyse PSM requirements. Further research may also be conducted to gather evidence for the hypothesis that the culturally expressed intention eventually translates into sustainable, different behaviour during the course of the job.

Another limitation of the job ads method influences the generalisability of the findings: The collected job ads were overwhelmingly aimed toward (younger) PSM professionals with two and up to ten years of working experience. The ideal candidate, according to the language used in the ads, seemed to have about five years of purchasing job experience. Hence, the databases searched for this research did not typically contain information on CPOs, which might have different (and possibly more homogeneous) requirements.

The results of the analyses of secondary data cited in the literature, such as the requirements mentioned in online job advertisements, may be considered an essential source of highly up-to-date and available information. These results provide readers with a firm understanding of what employers require from employees (e.g., Arcodia and Barker, 2003; Mathews and Redman, 2001; Rafaeli and Oliver, 1998; Shou and Wang, 2015). Nevertheless, the concise nature of the job advertisement texts sets certain limitations regarding their interpretation. In their demands, the employers listed 12 requirements on average per job advertisement, some of which were 'container terms', such as 'PSM knowledge'. Job ads do not usually specifically describe the exact type of PSM knowledge required. For this reason, a different mapping method, probably involving primary data collection, would need to be applied to examine this data in more depth.

As mentioned, another limitation refers to the object of the analysis. If firms express that they are searching for a purchaser with a specific profile, this does not necessarily mean that an applicant who fits this profile will represent the most empirically successful professional. An isomorphic process might be taking place, whereby HR agents are copying text from previous job advertisements issued by their own company or by peer companies and, in this way, replicating past profiles. Such profiles may no longer be

current and applicable to their particular case. The national deviations could also result from such copy-and-paste processes, instead of the result of conscious decisions.

Moreover, it was not possible to associate all requirements to the most prominent and elaborate taxonomies as presented in the PSM skills literature (e.g., Bals et al., 2019; Giunipero and Pearcy, 2000; Schiele, 2007; Tassabehji and Moorhouse, 2008). Of the 57 requirements, only 27 could be matched. The other were mapped with an HR skills taxonomy (n = 24; Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004) or were newly introduced to the literature (n = 6). Further research could provide more extensive, validated PSM skills taxonomies.

Further research might need to be conducted to test whether the profiles of successful professionals with specific job experience levels still vary significantly from one another; for instance, by conducting surveys. For instance, the more 'feminine' Dutch approach in which purchasers with diplomatic skills are sought may, in practice, not be effective. After spending a few years on the job, only the most assertive purchasers will remain, i.e. those who resemble the type described in the Austrian job ads more closely. It would be interesting to follow the personal development of individual purchasers over time.

On the other hand, this research seemed to replicate and confirm the usefulness of Hofstede's model more than that of the GLOBE model. A significantly higher number of 'masculine' elements are identified in Austrian PSM job ad requirements and a significantly higher number of individualistic elements in Belgian and Dutch PSM job ad requirements. In other words, the analysis of job ads shows that a universal or standard European PSM professional does not exist, at least not from the recruiters' viewpoints. Nevertheless, the study results have to be treated cautiously. Tung and Verbeke (2010, p.1259) warned, "(…) researchers should never formulate strong conclusions about the impact of cultural dimensions on managerial choice or economic performance based on samples that include only one or a few countries". A more extensive set of samples of PSM job ad requirements from more European countries could be collected to test whether the cultural observations made in this study can be replicated in the field by researching PSM job ad requirements.

Moreover, few of the 52 dissimilarities listed could be explained culturally or structurally. Differences could only be explained by applying Hofstede's cultural dimensions of 'masculinity' and 'individualism'. The influences of differences based on the dimensions 'power distance' and 'uncertainty avoidance' could not be detected.

Hofstede's work has been the subject of serious debate in the scientific literature (Baskerville, 2003; McSweeney, 2002a, 2002b). Authors have questioned whether the Hofstede cultural dimensions test culture rather than personal traits, as Baskerville (2003) stated in her article entitled *Hofstede never studied culture*. The cultural differences that could be explained in this study are based upon personal traits, findings that are in line with those of Baskerville (2003). This study refers to the calculations of Kale (1995), which were based upon the cultural values of Hofstede. However, it is doubtful whether the cultural values of Hofstede can be the subject of further calculations (Tung and Verbeke, 2010). Furthermore, the question is whether corporate culture might not play a role as mentioned earlier (i.e., Kibbeling et al., 2009). Dedicated research would need to be carried out in which job ads from multinational companies were compared, attributing the identified differences to either the national culture or the corporate culture of a group of firms.

One of the main concerns regarding the use of Hofstede's model was whether the cultural differences identified among the countries [initially calculated by Hofstede

(1980a)] based on surveys made five decades ago (i.e., 1967 to 1971) were still valid in the 21st century. Hofstede's Culture's Consequences (Hofstede, 1980b) is, however, still among the 25 most frequently cited books in the social sciences (Beugelsdijk et al., 2017). Also, the findings of this study, based on an analysis of the literature, practitioners' standards, and information collected from job ads in Austria, Belgium, and the Netherlands, show that Hofstede's model could still be used to at least partly explain the cultural differences that were identified. In contrast, other models fail to predict such differences.

Regarding the empirical deployment of cultural models, Shi and Wang (2011) underline that scholars have been too much focused on values surveys, whereas theories for understanding the connections between cultures are missing. They recommend future research that is focused on the development of theories and to focus on the application of Hofstede's and the GLOBE models across different cultures and in diverse research fields. They advise using a quantitative method to see which culture dimensions are vital factors in a cross-cultural relationship.

Acknowledgements

The empirical data in this paper comes from Project Purchasing Education and Research for European Competence Transfer (PERFECT), which had been funded by the European Union from 2015 to 2018 to become the first worldwide region to establish an empirically validated pan-European PSM higher education curriculum. The project was embedded into the ERASMUS+ 2015 KA2 program (Cooperation for Innovation and the Exchange of Good Practices Strategic Partnerships for Higher Education) with the project number 2015-1-DE01-KA203-002174.

The funding organisation played no role in the design of study, review and interpretation of data, or preparation or approval of the manuscript.

This open access publication was supported by TU Graz Open Access Publishing Fund.

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Appendix

Table A1 PSM competencies literature 1987-2019

1987–2001	*2003–2019*
Anderson and Katz (1998)	Baily et al. (2008)
Carr and Smeltzer (2000)	Bals et al. (2019)
Carter and Narasimhan (1996)	Burt et al. (2003)
Cavinato (1987)	Giunipero et al. (2006)
Cruz and Murphy (1996)	Cousins and Spekman (2003)
Dowd and Liedtka (1994)	Eltantawy et al. (2009)
Faes et al. (2001)	Flöthmann et al. (2018b)
Giunipero (2000)	Giunipero et al. (2005)
Giunipero and Pearcy (2000)	Giunipero and Handfield (2004)
Keough (1993)	Kern et al. (2011)
Killen and Kamauff (1995)	Knight et al. (2014)
Kolchin and Giunipero (1993)	Mulder et al. (2005)
McKeefry (1998)	Schulze et al. (2019)
Muller (2001)	Tassabehji and Moorhouse (2008)
Murphy (1995)	Tatham et al. (2017)
Pagell et al. (1996)	Trent and Monczka (2003)
	Zawawi et al. (2014)

Note: PSM job experience and knowledge, negotiation skills.

Table A2 PSM job requirements in the total set of the 100 Austrian, 100 Belgian, and 100 Dutch PSM job ads

	Requirement	*Austria (n = 100)*	*Belgium (n = 100)*	*Netherlands (n = 100)*	*Total (n = 300)*	*Mean*
1	English language proficiency (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	94	80	66	240	80.0
2	*PSM job experience and knowledge (Schiele, 2007; Tassabehji and Moorhouse, 2008)*	*72*	*86*	*78*	*236*	*78.7*
3	Having at least a bachelor's (BSc/BASc) degree (new)	70	45	79	194	64.7
4	*Communication skills (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)*	*39*	*47*	*56*	*142*	*47.3*
5	Negotiation skills (Giunipero and Pearcy, 2000; Tassabehji and Moorhouse, 2008)	66	41	33	140	46.7
6	*Result-orientated action-taking - being result driven (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)*	*40*	*47*	*46*	*133*	*44.3*
7	Computer literacy (Giunipero and Pearcy, 2000; Tassabehji and Moorhouse, 2008)	56	42	34	132	44.0
8	Persistence (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	62	23	32	117	39.0
9	*Team player – team spirit – ability to be on a team (Bals et al., 2019; Erpenbeck and Scharnhorst, 2005; Giunipero et al., 2012; Heyse et al., 2004)*	*39*	*40*	*27*	*106*	*35.3*
10	Flexibility (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	71	16	17	104	34.7
11	Analytical skills (Bals et al., 2019; Erpenbeck and Scharnhorst, 2005; Giunipero et al., 2012; Heyse et al., 2004)	11	49	33	93	31.0
12	Experience in the focal industry (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	25	39	23	87	29.0
13	Business and trade knowledge and experience (Giunipero and Pearcy, 2000; Tassabehji and Moorhouse, 2008)	36	16	30	82	27.3
14	Discipline (Giunipero et al., 2006; Giunipero and Pearcy, 2000)	61	8	12	81	27.0
15	Devotedness (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	65	0	3	68	22.7
16	Technical education (BSc or MSc degree) (new)	42	13	9	64	21.3

Note: Common grounds are displayed in italic font – significant dissimilarities are displayed in a standard font.

Table A2 PSM job requirements in the total set of the 100 Austrian, 100 Belgian, and 100 Dutch PSM job ads (continued)

	Requirement	*Austria (n = 100)*	*Belgium (n = 100)*	*Netherlands (n = 100)*	*Total (n = 300)*	*Mean*
17	Creativity, innovativeness and handle complex situations – (Bals et al., 2019; Erpenbeck and Scharnhorst, 2005; Giunipero et al., 2012; Heyse et al., 2004)	0	32	31	63	21.0
18	Customer-oriented (Giunipero and Pearcy, 2000; Tassabehji and Moorhouse, 2008)	10	30	23	63	21.0
19	Technical knowledge and experience (Giunipero and Pearcy, 2000; Tassabehji & Moorhouse, 2008)	31	20	12	63	21.0
20	Proactive – taking initiative (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	19	12	28	59	19.7
21	Legal knowledge (Giunipero and Pearcy, 2000; Tassabehji and Moorhouse, 2008)	32	7	18	57	19.0
22	Willingness to travel (new)	34	13	10	57	19.0
23	Stress avoidance – the ability to handle stress (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	29	12	14	55	18.3
24	*Accuracy and precision (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)*	*12*	*23*	*19*	*54*	*18.0*
25	Pragmatic – hands on mentality (new)	6	20	27	53	17.7
26	Energy drive (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	7	16	27	50	16.7
27	Organisational skills (Bals et al., 2019; Erpenbeck and Scharnhorst, 2005; Giunipero et al., 2012; Heyse et al., 2004)	19	24	5	48	16.0
28	Independency – sole-responsibility (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	0	27	20	47	15.7
29	Responsibility (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	32	8	5	45	15.0
30	Having at least a MSc degree (new)	0	38	7	45	15.0
31	Problem-solving skills (Bals et al., 2019; Flöthmann et al., 2018b; Tassabehji and Moorhouse, 2008)	7	25	10	42	14.0
32	Persuasiveness (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	4	14	23	41	13.7
33	Personnel management/leadership skills (Schiele, 2007)	13	11	17	41	13.7

Note: Common grounds are displayed in italic font – significant dissimilarities are displayed in a standard font.

Table A2 PSM job requirements in the total set of the 100 Austrian, 100 Belgian, and 100 Dutch PSM job ads (continued)

	Requirement	*Austria (n = 100)*	*Belgium (n = 100)*	*Netherlands (n = 100)*	*Total (n = 300)*	*Mean*
34	Trustworthiness/honesty/reliability (Bals et al., 2019; Flöthmann et al., 2018a)	16	13	10	39	13.0
35	Multidisciplinary/knowledge of multiple disciplines (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	11	18	8	37	12.3
36	Having a degree in business study (new)	4	15	17	36	12.0
37	Decisiveness (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	9	12	14	35	11.7
38	Building relations/networking skills (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004; Schiele, 2007)	0	16	18	34	11.3
39	Project management (Schiele, 2007)	7	13	11	31	10.3
40	Assertiveness/poise (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	18	11	2	31	10.3
41	Diplomacy, social manners and political sensitivity (Bals et al., 2019; Erpenbeck and Scharnhorst, 2005; Giunipero and Pearcy, 2000; Heyse et al., 2004)	3	3	21	27	9.0
42	Holistic thinking/having overview (Giunipero and Pearcy, 2000; Kolchin and Giunipero, 1993; Tassabehji and Moorhouse, 2008)	10	8	9	27	9.0
43	Proceed in a systematic-methodical manner (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	0	17	9	26	8.7
44	Strategic thinking (Bals et al., 2019; Giunipero and Pearcy, 2000)	6	6	13	25	8.3
45	Calculation/numeral skills (Giunipero and Pearcy, 2000; Kolchin and Giunipero, 1993)	0	10	9	19	6.3
46	Open communication/openness/accessible (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	2	4	13	19	6.3
47	Process management (Bals et al., 2019; Tassabehji and Moorhouse, 2008)	6	4	9	19	6.3
48	Consultancy or advisory skills (Bals et al., 2019; Faes et al., 2001)	0	4	10	14	4.7
49	Will to learn or learning ability (Bals et al., 2019	0	6	5	11	3.7
50	Stakeholder relation management (Bals et al., 2019)	0	5	5	10	3.3
51	Curiosity (Bals et al., 2019; Erpenbeck and Scharnhorst, 2005; Giunipero and Pearcy, 2000; Heyse et al., 2004)	2	5	2	9	3.0

Note: Common grounds are displayed in italic font – significant dissimilarities are displayed in a standard font.

Table A2 PSM job requirements in the total set of the 100 Austrian, 100 Belgian, and 100 Dutch PSM job ads (continued)

	Requirement	*Austria (n = 100)*	*Belgium (n = 100)*	*Netherlands (n = 100)*	*Total (n = 300)*	*Mean*
52	Motivating/inspiring others (Killen and Kamauff, 1995)	0	5	4	9	3.0
53	Change management (Giunipero and Pearcy, 2000; Tassabehji and Moorhouse, 2008)	0	4	5	9	3.0
54	Change driven attitude (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	0	0	8	8	2.7
55	International mind-set and intercultural sensibility (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	1	5	2	8	2.7
56	Presentation skills and talent for presentations (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	1	4	0	5	1.7
57	Humour (Erpenbeck and Scharnhorst, 2005; Heyse et al., 2004)	0	0	5	5	1.7
	Totals	1,200	1,112	1,083	3.395	

Note: Common grounds are displayed in italic font – significant dissimilarities are displayed in a standard font.