

THE HUMAN ASPECT IN PURCHASING AND SUPPLY MANAGEMENT

TRAITS AS A PROXY FOR PERSONAL SKILLS DEVELOPMENT

ABSTRACT

Personal skills are gaining importance in the Purchasing and Supply Management (PSM) discipline. A systematic literature review is performed to determine which personal skills are highly evaluated. Based on the PSM skills cross-sectional survey sample, ANOVA competencies are identified that do not develop over time. Three survey items are regarded as personal traits: willingness to learn, holistic thinking and empathy. Finally, a polynomial regression with response surface analysis is applied. The results identify these personal traits as predicting variables for developing personal PSM competency. These three personality traits serve as a proxy for further development of personal skills over time.

Keywords: Purchasing and Supply Management, personal competencies development, innate personal traits

Intrapersonal and interpersonal competencies the key to future success in PSM

The purchasing and supply management (PSM) profession evolves rapidly from a transactional, operational function into a strategic role and therefore, the profile of PSM manager is undergoing substantial changes (e.g. Bals, Schulze, Kelly, & Stek, 2019; Feisel, Hartmann, & Giunipero, 2011; Kiratli, Rozemeijer, Hilken, de Ruyter, & de Jong, 2016; Knight, Tu, & Preston, 2014). Today, purchasing is regarded as a function, which can increase a firm's competitive advantage by "improving cost savings, increasing the quality of products and processes and advancing innovation capability (Feisel et al., 2011, p. 55), sustainability goals and relationship with suppliers (Zheng, Knight, Harland, Humby, & James, 2007, p. 73).

As a result of the changing procurement role and an increased emphasis on the PSM function, the ideal skill set for a "world-class" procurement professional also changed (Giunipero & Percy, 2000, p. 6). Although technical competencies are still regarded as crucial to the job, interpersonal and intrapersonal skills are expected to become the future key to PSM success (Bals et al., 2019). Various authors stressed out this importance of intrapersonal and interpersonal competencies, by arguing that the profession is becoming increasingly human-centred (Bals et al., 2019; Feisel et al., 2011). As Feisel et al. (2011, p. 63) state, "in recent years, the importance of the human aspect to the PSM function has been increasingly recognized" (Feisel et al., 2011). They are required at every organisational level for effective procurement management (Von der Gracht, Giunipero, & Schueller, 2016, p. 4).

The reason for the effect on the success in PSM is that organisations are becoming increasingly aware of the value of assets of intangible resources (Elias & Scarbrough, 2004; Jasimuddin, Klein, & Connell, 2005; Nonaka & Takeuchi, 1995; Smith, 2001) on which the Knowledge-Based View (KBV) (Grant, 1996) is based as derived from the Resource-Based View (RBV) (Barney, 1991, 2012). The RBV theory suggests that organisations can be conceptualised as bundles of resources. Some of these resources can be just developed internally and provide a competitive advantage through specific differentiation within the market (Haesli & Boxall, 2005). The competitive advantages of firms stem from 'core' competencies based on specific knowledge over time. Much of this knowledge is embodied in the firm's human resources (Haesli & Boxall, 2005; Wright, Dunford, & Snell, 2001). As a

result, employees and their competencies become an essential strategic and competitive asset to organisations as they also serve as an organisations ‘memory system’, through creating social networks and knowledge and skills transfer (Currie & Kerrin, 2003; Swart & Kinnie, 2003).

One crucial issue arising in this context is concerned with the development potential of intrapersonal and interpersonal competencies. Within the literature, there is a discourse on this topic. While some authors claim that these skills can be developed, others view them as attributes with little development potential (Bailly & Léné, 2012; Bergh, Van Staden, Joubert, Krüger, Pickworth, Roos, Schurink, Du Preez, Grey, & Lindeque, 2006; Gillard, 2009). Hoyle and Davisson (2011) claim that these skills are not entirely in an individual’s control: “some behaviours are governed by biological needs and therefore not routinely under the individual’s direct control. Other behaviours have become associated with cues in the environment (i.e., conditioned) and, as a result, typically are produced by those cues rather than a conscious decision by the individual” (Hoyle & Davisson, 2011, p. 3).

This issue’s importance is underlined because corporate training is currently a \$50-billion-dollar industry (Kyllonen, 2013, p. 20). Besides that, cognitive tests are accounted for only 20 per cent of educational attainment’s effect on future success, meaning that the focus should be on gaining knowledge regarding developing intrapersonal and interpersonal competencies (Kyllonen, 2013, p. 22).

This study examines the development potential of intrapersonal and interpersonal competencies required in PSM. In the first stage of this paper, we investigate whether intrapersonal and interpersonal competencies essential for the PSM function can be developed over time. Accordingly, the following research question is proposed:

➤ *RQ 1: Can intrapersonal and interpersonal competencies, which are associated with success in PSM, be developed?*

Next, we identify which factors influencing intrapersonal and interpersonal competencies development. For this purpose, we conduct an ANOVA to find competencies that do not develop over time and are therefore regarded as personal traits, rather than developable competencies. Furthermore, the effect of professional experience on competency development is examined. Various authors confirm the importance of experience on competency development (Aserkar, Kumthekar, & Inamdar, 2017; Čiarniene, Kumpikaite, & Vienazindiene, 2010; Elmuti, 2004; Feisel et al., 2011). On that basis, we propose the following research question:

➤ *RQ 2: Is there a positive relationship between the level of personal traits and the level of professional experience and competency development?*

Distinguishing between personal traits and competencies and discussing the importance of professional experience on competency development

According to Arnold, Nolda, and Nuissl (2001), competence refers to a person’s capacity to act and is more holistic, comprising content or subject knowledge and ability and core and generic abilities (Arnold et al., 2001). Nadler and Tushman (1999) underline the importance of competencies and argue that organisations need to become proficient in specific core competencies to succeed (Nadler & Tushman, 1999). Le Deist & Winterton (2005) claim that competence does not consist of just one layer, but is a result of a multidimensional inter-function. Just if an individual masters all the components, meaning having the required knowledge and skills and showing a proactive attitude (behaviour), it can be spoken from a competence (Le Deist & Winterton, 2005). Although there is a discourse on whether

intrapersonal and interpersonal competencies can be developed, for most researchers these competencies are developable (Bailly & Léné, 2012; Bergh et al., 2006; Gillard, 2009). Consequently, it can be hypothesised certain factors such as a set of crucial personal traits and professional experience positively attribute to intrapersonal and interpersonal competency development.

Personal traits are typically defined as descriptions of people in terms of relatively stable patterns of behaviour, thoughts, and emotions (Parks-Leduc, Feldman, & Bardi, 2014). The difference between competencies and personal traits is that competencies are not necessarily equivalent to an individual's actual behaviour. A combination of competencies and traits can better understand an employee's value (Yukl, 2012). Extensive research on whether personality traits can be developed has been conducted (Mroczek & Spiro, 2003; Roberts & Takahashi, 2011; Soto, John, Gosling, & Potter, 2011).

The overall conclusion is that personality traits are complex constructs, which are not easily interfered with. Some studies suggest that while some traits may develop over time, others may decline (Soto et al., 2011). Caspi and Roberts (2001) claim that the developmental trajectory is not the same for each individual in most of the cases due to the significant impact of factors like the environmental impact, genetic makeup, and personality changing activities (Caspi & Roberts, 2001). As a consequence, "these individual differences in external and internal factors are likely to produce individual differences in the developmental trajectories of traits" (Mroczek & Spiro, 2003, p. 154). Unlike intrapersonal and interpersonal competencies, personality traits are not as well developable by organisations and very individual-dependent. According to Mumford, Zaccaro, Harding, Jacobs, and Fleishman (2000), in the skill-based model, "skills are seen as developing as a function of the interaction between traits and experience" (Mumford et al., 2000).

Various researchers confirm the positive effect of professional experience on intrapersonal and interpersonal competencies development (Aserkar et al., 2017; Čiarniene et al., 2010; Elmuti, 2004; Feisel et al., 2011). A study conducted by Brown and Ahmed (2009) suggests that especially transferable competencies such as communication skills, ability to solve problems, team working, personal effectiveness, or decision-making skills are positively affected by professional experience (Brown & Ahmed, 2009). Because of these findings, we hypothesise the following:

- Hypothesis: professional experience positively influences intrapersonal and interpersonal competency development.

Research Methodology: Investigating intrapersonal and interpersonal competency development

For this study, a PSM competency survey was held amongst European PSM professionals ($n=581$), ranking their intrapersonal and interpersonal competencies levels. The survey consists of a self-evaluation survey of 581 European PSM professionals, including operative, direct and indirect buyers, tactical and strategic buyers, purchasing engineers, innovation buyers, CPOs and contract managers. The survey has three primary objectives: (1) to rank the professional focuses costs, quality, delivery, innovation and sustained competitive advantage. (2) to evaluate the purchaser on 88 PSM related skills items (3) to state the level of PSM success the participant self-assessed the achieved individual success in costs reductions, quality improvement, securing safe delivery, ensuring to have access to the innovations of the supplier, enforcing supplier satisfaction, and achieving sustained competitive advantage.

Furthermore, a systematic literature review was applied to identify the most critical intrapersonal and interpersonal PSM competencies. As a result, these competencies were chosen from the dataset for further analysis. Within the literature, a wide range of articles PSM competencies articles can be found. The search is limited to Scopus and Web of Science's database to identify the most valuable and reliable literature. Only a few selected articles, which were not derived from these search engines, were used for the competence identification process (Bals et al., 2019; Perfect, 2017).

This literature review assesses literature from the field of PSM. The identification of intrapersonal and interpersonal competencies leading to success in procurement is strictly limited to this domain. For further information regarding the competencies and more insights on competence development, literature from psychology, HRM, management, industrial training and organisational behaviour, is used. This literature is not directly concerned with PSM issues but still provides valuable and insightful information (Lau, 2010; Mol, 2003; Paglis Dwyer & G. Green, 2002). The final sample consists of 51 articles directly linked to the topic and scope of this research. The final set of the most important intrapersonal and interpersonal PSM competencies is shown in Table 1.

Table 1 – Systematic literature review results on the most important intrapersonal and interpersonal competencies in PSM

Skill	Frequency	Sources
Intrapersonal competencies		
Conscientiousness	5	[6], [10], [11], [12], [16]
Empathy	4	[1], [9], [17], [30]
Holistic thinking	4	[1], [2], [32], [12]
Honesty	5	[1], [5], [9], [17], [30]
Inventiveness	5	[13],[14], [15], [16], [38]
Loyalty	4	[1], [7], [9], [17]
Proactivity	4	[1], [5], [13], [14], [48]
Problem solving	6	[1], [4], [6], [7], [8], [9],
Result driven	7	[1], [4], [5], [6], [9], [41], [47]
Self-assurance	5	[5], [18], [19], [20], [30]
Willingness to learn	4	[4], [13], [48], [49]
Willingness to take risks	5	[14], [18], [21], [22], [47]
Interpersonal competencies		
Building relations	7	[22], [30], [32], [33], [34], [35], [36],
Communication	12	[1], [3], [4], [5], [6], [7], [14], [17], [27], [30], [38] [47],
Cross-cultural aware	6	[5], [9], [22], [31], [32], [37],
Leadership	7	[4], [5], [7], [28], [29], [30], [47],
Persuasion	7	[4], [14], [30], [38], [46], [50], [51]
Team ability	10	[1], [2], [5], [6], [7], [9], [14], [30], [41], [47]
Training staff	6	[7], [22], [31], [38], [46], [47]
(1) (Lau,2010), (2) (Gammelgaard & Larson, 2001), (3) (Cacciolatti et al, 2017), (4) (Knight et al., 2014), (5) (Larson, 2009) (6) (Jordan & Bak, 2016), (7) (Tatham, Wu, Kovács, & Butcher, 2017), (8) (Bak & Boulocher-Passet, 2013), (9) (Thai, 2012), (10) (Pulakos, Arad, Donovan, & Plamondon, 2000) (11) (Eltantawy, Giunipero, & Fox, 2009), (12) (Upton, 1995), (13) (Lumpkin & Dess, 2001), (14) (Giunipero, Denslow, & Eltantawy, 2005), (15) (Sinha, Millhiser, & He, 2016), (16) (Allal-Chérif & Maira, 2011), (17) (Faes, Knight, & Matthyssens, 2001), (18) (Axelrod, 2017), (19) (Paglis Dwyer & G. Green, 2002), (20) (Caetano, Vala, & Leyens, 2001), (21) (Murphy & Poist, 2006), (22) (Harvey & Richey, 2001), (23) (Giunipero & Percy, 2000), (24) (Lim, 2019), (25) (Elmuti, 2004), (26) (Iyer, 2005), (27) (Shou & Wang, 2015), (28) (Kouzes JM & Challenge, 2002), (29) (Mangan, 2005) (30) (Giunipero, Handfield, & Eltantawy, 2006), (31) (Rahman & Qing, 2014), (32) (Bals et al., 2019) (33) (Teller, Kotzab, Grant, & Holweg, 2016), (34) (Lages, Lanchastre, & Lages, 2008), (35) (Fynes, De Burca, & Mangan, 2008), (36) (Giunipero & Flint, 2001), (37) (Youngdahl, Ramaswamy, & Dash, 2010), (38) (Tassabehji & Moorhouse, 2008), (39) (Andersen & Rask, 2003), (40) (Schiele, 2007), (41) (Prajogo & Sohal, 2013) (42) (Mehra & Inman, 2004), (43) (Essex, Subramanian, & Gunasekaran, 2015), (44) (Parker & Anderson, 2002), (45) (Sartor, Orzes, Nassimbeni, Jia, & Lamming, 2015), (46) (Large & Giménez, 2006), (47) (Wu, Huang, Goh, & Hsieh, 2013), (48) (Bandyopadhyay, 2004) (49) (Wilson & Barbat, 2015), (50) (Andersen & Rask, 2003), (51) (Carr & Pearson, 2002)		

The intrapersonal and interpersonal competencies identified through the systematic literature review are selected for an ANOVA. The results revealed that willingness to learn, holistic thinking and empathy show insignificant results. These competencies did not change significantly with increased professional experience levels. Hence, these, therefore, can be viewed as personal traits. Consequently, we assume that these competencies are innate character traits, dividing the study population into two parts. As mentioned in the previous section, personal traits are challenging to develop (Caspi & Roberts, 2001; Mroczek & Spiro, 2003).

Next, a polynomial regression analysis is applied. Polynomial modelling permits to examine complex relationships between component measures and an outcome variable. This technique allows examining curvilinear terms to picture the relationships accurately can be made (Venkatesh & Gopal, 2010). Throughout the analysis, we follow the methodological steps as displayed by Shanock, Baran, Gentry, Pattison, and Heggstad (2010) Shanock et al. (2010) (Shanock et al., 2010). As mentioned in the previous section, this study investigates the relationship between personality traits and professional experience on intrapersonal and interpersonal competencies development. Based on ANOVA, we identify three personality traits: willingness to learn, holistic thinking and empathy. The mean of these factors represents the *y-axis* in the polynomial regression analysis. The *x-axis* represents the professional experience of the study participants.

As argued by Shanock et al. (2010), a large enough data discrepancy has to be ensured before conducting a polynomial regression analysis. Without this information, it is unclear whether there are discrepancies in the sample needed for valid results. To the polynomial regression analysis to be valid, a discrepancy of at least ten per cent is required. For this purpose, we follow the method presented by Fleenor, McCauley, and Brutus (1996). First, we standardize each predictor variable (x = years of professional experience and y = mean of entrepreneurial PSM competencies). Participants with values above or below half standard deviation are considered to have discrepant values. Secondly, we determine the percentages of values, which agree, and values with discrepant values in each direction. Table 3 displays the discrepancy values. The discrepancies are nearly equal and far above the minimum requirement of ten per cent. For conducting the polynomial regression analysis, we have created three variables. Variable x represents the years of professional experience of the study participants, variable y represents the mean of all ‘innate’ entrepreneurial PSM competencies, and variable z represents all remaining intrapersonal and interpersonal PSM competencies. All independent variables have been centred on a 5-point Likert scale, as proposed by (Shanock et al., 2010). Centring the values aids interpretation and reduces the potential for multicollinearity. For interpretation of the results, we have plotted the three-dimensional response surface and examined its features. This procedure has been conducted by using the graphic function in Excel.

*Table 2: Discrepancy values for polynomial regression analysis –
Level of agreement in z-value levels of the independent variables*

		Frequency	Per cent	Valid per cent	Cumulative per cent
Valid	< -0.5	211	37,4	37,4	37,4
	-0.49 to 0.49	173	30,7	30,7	68,1
	> 0.5	180	31,9	31,9	100,0
	Total	564	100,0	100,0	

Research findings: Polynomial regression analysis confirms significant development of intrapersonal and interpersonal competencies

As described in the methodology section, the study started with an ANOVA to measure the hypothesised intrapersonal and interpersonal competencies development. From nineteen competencies, which were analysed, ‘willingness to learn’, ‘holistic thinking’ and ‘empathy’ have insignificant betas; hence, these do not change over time with an increased professional experience level. Therefore, we concluded that these variables could be viewed as personal traits rather than developable competencies. According to several authors, personal traits are difficult to change and depend on environmental and individual-dependent factors than on active training and development (Caspi & Roberts, 2001; Mroczek & Spiro, 2003).

In the polynomial regression analysis, we use the mean of these personal traits to form the latent variable for the polynomial analysis, which will be projected on the y -axis (personal traits). The latent variable for the analysis is the level of the participant’s professional experience based on the x -axis (professional experience). To conduct the polynomial regression analysis accordingly to the method presented by Shanock et al. (2010), we created a 5-point Likert scale and divided the study population into five groups based on participants years of professional experience (1-8 [-2], 9-16 [-1], 17-24 [0], 25-32 [1] and 33-40 [2] years). Each group represents eight years of professional experience.

The mean of the remaining sixteen competencies, which had significant ANOVA results and are therefore considered as developable competencies, is used to form the dependent outcome variable (z). The final polynomial regression analysis model is presented in figure 1. The exact values for each plot within the model are displayed in table 3. Furthermore, table 4 shows the results for slopes and curves testing.

Table 3: Points to Plot table

		Points to Plot				
		X – Years of Professional Experience				
Y - Personal Traits		-2	-1	0	1	2
2		4,22	4,45	4,61	4,71	4,74
1		3,61	3,81	3,96	4,01	4,01
0		2,96	3,13	3,23	3,27	3,25
-1		2,27	2,42	2,49	2,51	2,45
-2		1,55	1,67	1,72	1,70	1,62

The results that are displayed in table 3 and are plotted in figure 1 show that the line of the perfect agreement as related to intrapersonal and interpersonal competencies level (z) has a positive and significant slope, which proves that agreement between the level of personal traits and professional experience is significantly important. The lowest level of intrapersonal and interpersonal competencies can be observed when personal traits (‘willingness to learn’, ‘holistic thinking’ and ‘empathy’) and professional experience are low. These levels are becoming increasingly higher toward the back of the graph (figure 1), where the levels of personal traits and professional experience are both in agreement and high.

The results also indicate that personal traits seem important for intrapersonal and

interpersonal competency development. If this is the case, these competencies grow with increasing years of experience. Individuals with high levels of personal traits are expected to develop their relatively high levels of the remaining intrapersonal and interpersonal competencies with increasing professional experience.

Table 3 displays the testing slopes and curves. The slopes $a1$, $a3$ and the curvature $a4$ have significant results. Table 3 shows the significance of the slope (a_1) on the diagonal $x = y$. This significant slope (a_1) is ascending from slope $a1$ from (-2, -2, 1.55) to (2, 2, 4.74) is significant (see figure 1). An increased level of years of professional experience if combined with increased levels of personal traits significantly, leads to higher intrapersonal and interpersonal competence levels.

The curvature $a4$ shows the degree of discrepancy between personal traits and years of professional experience (Shanock et al., 2010). The $a4$ value in our example is significantly negative. It indicates a decreased intrapersonal and interpersonal competencies level when the discrepancy between personal traits and professional experience increased. Thus, when both independent variables x and y are not combined on the slope $a1$, the dependent variable level z will decrease.

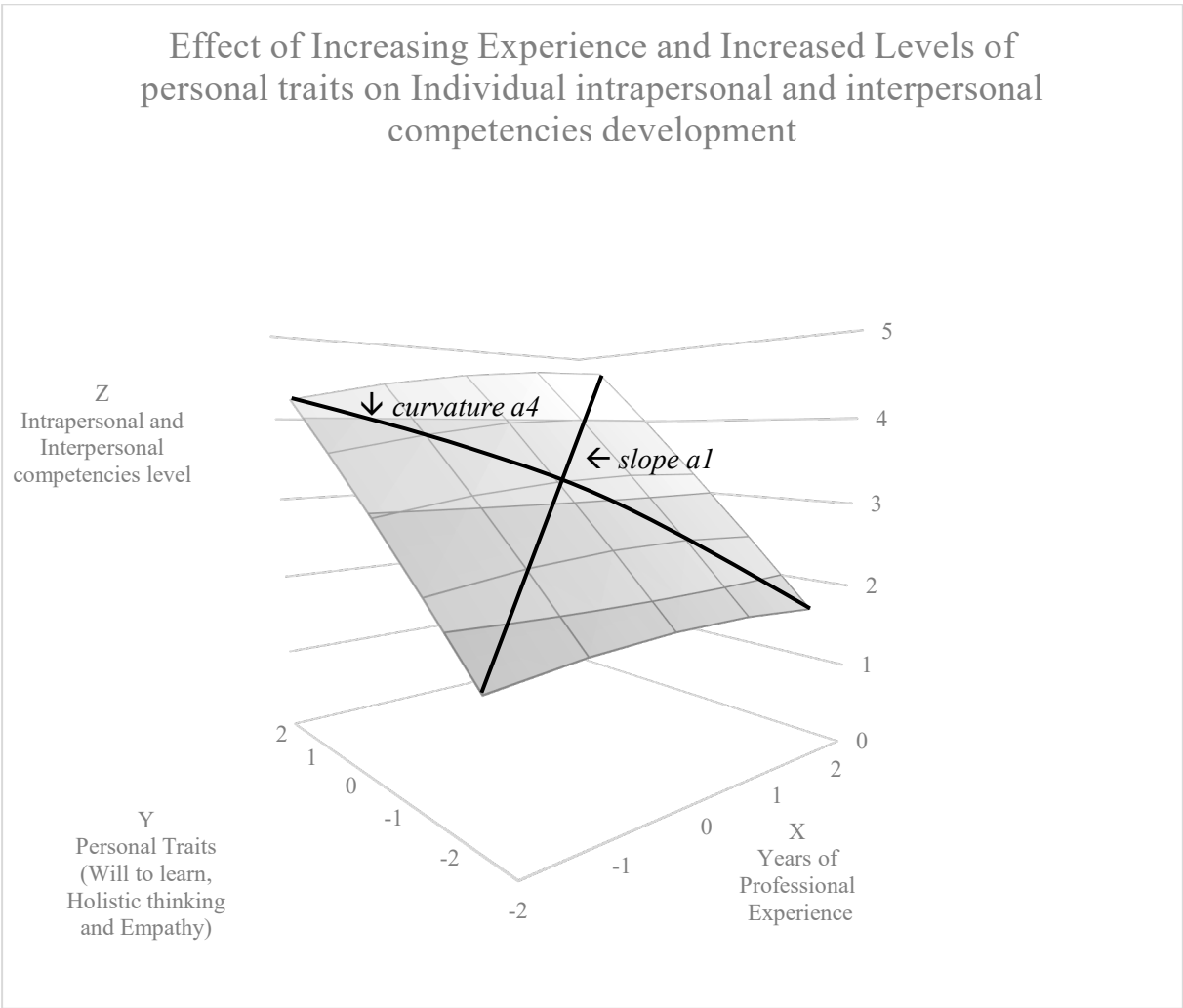


Figure 1: Polynomial regression analysis results

Table 4: Testing slopes and curves

	Intrapersonal and interpersonal competencies level			
	Coefficient	Standard Error	Test statistic (<i>t</i>)	Sign.
<i>Effects along the balanced line (PT=PE or x=y)</i>				
Slope (a1 = b1 + b2)	.80	.04	21.197	.000
Curvature (a2 = b3 + b4)	-.02	.03	-0.684	.494
<i>Effects along the balanced line (PR= -PE or x=-y)</i>				
Slope (a3 = b1 - b2)	-.65	.05	-12.108	.000
Curvature (a4 = b3 - b4 + b5)	-.08	.04	-2.128	.034

Notes: PT = Personal Traits; PE = Professional Experience; a1 and a2 represent the slope of each surface along the x=y line (i.e. PT=PE), while a3 and a4 represent the slope of each surface along the x=-y line (PT=-PE), where b1, b2, b3, b4, and b5 are the unstandardized coefficients on PT, PE, PT², PE*PE, and PE², respectively; the table is based on (Shanock et al., 2010).

Discussion

This paper examined the development potential of the most important intrapersonal and interpersonal PSM competencies required in PSM. As research has shown, ‘human’ skills are becoming increasingly important to the profession. Thus, a study on the development potential of these competencies provides a valuable contribution.

In this paper, we hypothesise that intrapersonal and interpersonal PSM competencies can be developed (Bailly & Léné, 2012; Bergh et al., 2006; Gillard, 2009). Besides three variables, which are therefore labelled as personal traits, the hypothesis can be confirmed. Sixteen competencies have shown to develop with increasing professional experience.

Based upon the literature review, we also confirm a positive relationship between professional experience and competency development (e.g. Aserkar et al., 2017; Čiarniene et al., 2010; Elmuti, 2004; Feisel et al., 2011). Participating purchasers with more professional experience are therefore expected to achieve higher levels of intrapersonal and interpersonal competencies.

The polynomial regression analysis results confirm the two predicting layers’ strength: personal traits and professional experience, with a more significant impact of personal traits. Figure 2 displays the lines $y=2$ and $y=-2$ and shows the large differences in the expected level of intrapersonal and interpersonal competencies when considering the factor personal trait. Furthermore, Figure 2 shows that strong levels of personal traits and professional experience lead to a more robust development of intrapersonal and interpersonal competencies. We find that if the level of personal traits is high, the level of intrapersonal and interpersonal PSM competencies increases with increasing professional experience. On the other hand, if the level of personal traits is low, intrapersonal and interpersonal competencies are expected to decline with increasing professional experience. This finding underlines the importance of personal traits and professional experience on intrapersonal and interpersonal competency development.

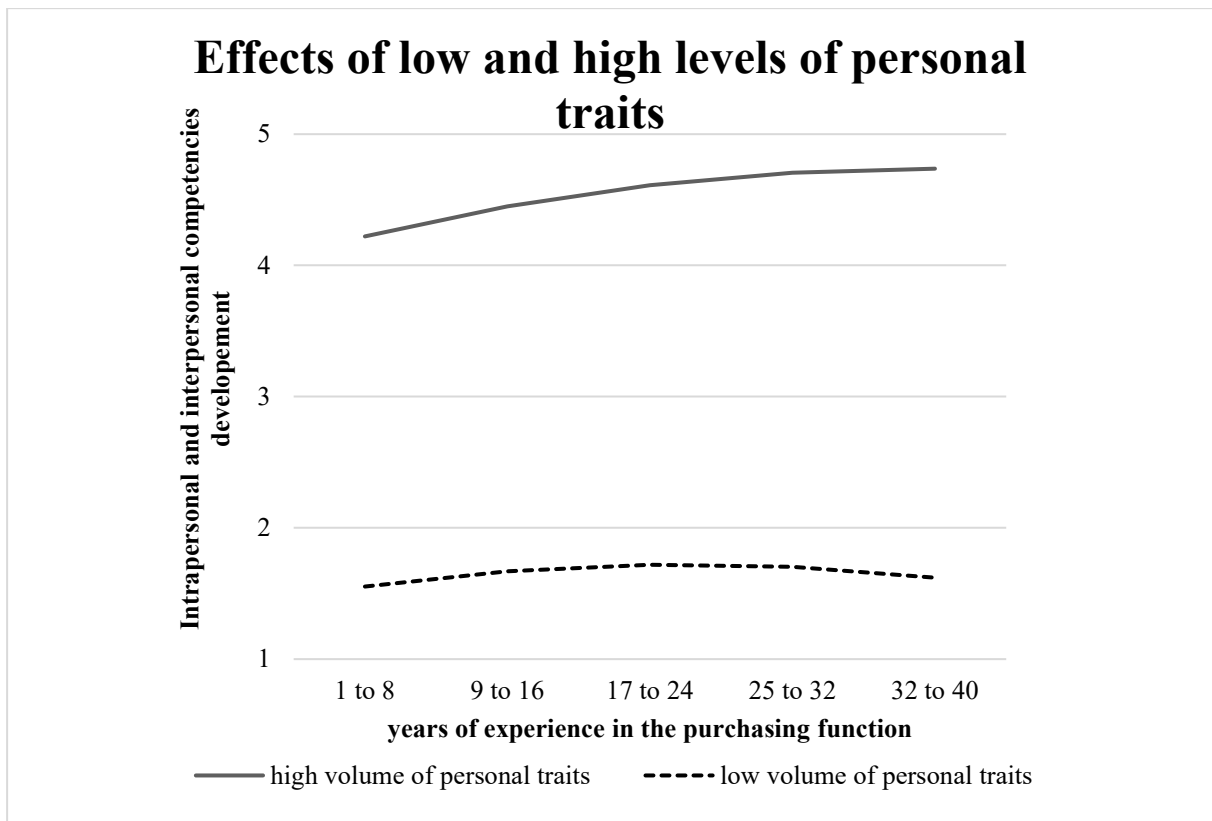


Figure 2: Effects of low and high levels of personal traits (Willingness to learn; Holistic thinking and Empathy) and the increasing years of professional experience on individual intrapersonal and interpersonal competencies development

Managerial implications and future research recommendations

Based on the findings, we conclude that purchasing departments aiming for a PSM team with high levels of intrapersonal and interpersonal competencies have to recruit employees with high levels of the personal traits willingness to learn, holistic thinking and empathy. Our analysis shows evidence that these variables do not increase with rising professional experience and can be seen as unchangeable personal traits rather than developable competencies.

Willingness to learn, holistic thinking and empathy seem to be proxies for intrapersonal and interpersonal PSM competencies development. It seems that individual purchasers, who have high levels of these traits, develop other intrapersonal and interpersonal competencies. PSM organisations who can identify and employ such individuals are expected to improve their ‘human’ resources, becoming increasingly crucial in PSM. Moreover, sixteen out of nineteen competencies analysed had significant ANOVA results, which means that these competencies are expected to be developable. Organizations who require high levels of intrapersonal and interpersonal competencies are advised to consider training and development programs to improve the employees’ competencies.

To validate the results of this research, we advise investigating this topic in the future further. The question of how to identify individuals with high levels of personal traits is becoming an emerging issue. The findings of this paper can serve as a starting point for further investigation. Another important topic not covered in this study is training and development methods for developing intrapersonal and interpersonal competencies. Current literature does not provide adequate results, and a sophisticated study on this issue is recommended. Factors

such as corporate training may accelerate the development of these competencies, especially the transferrable competencies mentioned in this paper. These competencies are expected to be significantly impacted by training.

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Appendix

Table 5: ANOVA Results (dependent variable: Years of Professional Experience)

ANOVA

		Sum of Squares	DF	Mean Square	F	Sig.
Holistic thinking	Between Groups	35,583	36	,988	1,142	,265
	Within Groups	455,969	527	,865		
	Total	491,551	563			
Willingness to learn	Between Groups	16,351	36	,454	,983	,500
	Within Groups	243,612	527	,462		
	Total	259,963	563			
Capacity to be empathetic	Between Groups	27,958	36	,777	1,172	,231
	Within Groups	349,290	527	,663		
	Total	377,248	563			
Holistic Thinking Holistic thinking involves understanding a system by sensing its large-scale patterns and reacting to them]	Between Groups	35,583	36	,988	1,142	,265
	Within Groups	455,969	527	,865		
	Total	491,551	563			
[Capacity to be empathetic Capacity to listen and understand]	Between Groups	27,958	36	,777	1,172	,231
	Within Groups	349,290	527	,663		
	Total	377,248	563			
[Willingness to Learn Being professionally curious, motivation to learn continuously]	Between Groups	16,351	36	,454	,983	,500
	Within Groups	243,612	527	,462		
	Total	259,963	563			
[Proactivity Being anticipatory, change-oriented and self-initiated behaviour in situations]	Between Groups	36,653	36	1,018	1,885	,002
	Within Groups	284,586	527	,540		
	Total	321,239	563			
[Inventiveness Being imaginativeness]	Between Groups	46,762	36	1,299	1,783	,004
	Within Groups	383,967	527	,729		
	Total	430,729	563			
[Capacity to be empathetic Capacity to listen and understand]	Between Groups	27,958	36	,777	1,172	,231
	Within Groups	349,290	527	,663		
	Total	377,248	563			
[Loyalty Being trustworthy in professional life]	Between Groups	26,125	36	,726	1,673	,010
	Within Groups	228,618	527	,434		
	Total	254,743	563			
[Honesty Being trustworthy in professional life]	Between Groups	24,214	36	,673	1,773	,004
	Within Groups	199,975	527	,379		
	Total	224,190	563			
[Self-assurance Being assertive and having self-esteem]	Between Groups	33,122	36	,920	1,664	,010
	Within Groups	291,437	527	,553		
	Total	324,559	563			
[Willingness to take risks]	Between Groups	50,442	36	1,401	1,990	,001
	Within Groups	371,138	527	,704		
	Total	421,580	563			
[Communication Skills Having the skills and knowledge of how to communicate (written and oral).]	Between Groups	38,738	36	1,076	1,854	,002
	Within Groups	305,914	527	,580		
	Total	344,652	563			
[Team Member Skills The ability to work in a group of persons acting together as a team.]	Between Groups	50,205	36	1,395	2,124	,000
	Within Groups	346,098	527	,657		
	Total	396,303	563			
	Between Groups	139,639	36	3,879	3,458	,000

[Leadership Managing employees in teams.]	Within Groups	591,169	527	1,122		
	Total	730,809	563			
[Training Staff Improve employees' knowledge and skills by training.]	Between Groups	142,692	36	3,964	3,150	,000
	Within Groups	663,067	527	1,258		
	Total	805,759	563			
[Building Relations Networking and relations management]	Between Groups	39,922	36	1,109	1,522	,029
	Within Groups	384,097	527	,729		
	Total	424,020	563			
[Cross-cultural Awareness Skills The ability to become aware of cultural values, beliefs and perceptions of yourself and other cultures.]	Between Groups	65,898	36	1,831	2,029	,001
	Within Groups	475,554	527	,902		
	Total	541,452	563			
[Power of Persuasion Having influential skills]	Between Groups	50,585	36	1,405	2,004	,001
	Within Groups	369,521	527	,701		
	Total	420,106	563			