What do merchandisers need to succeed?: development of an apparel merchandising competency framework

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Abstract:

Based on the analysis of extant research, this study identified the knowledge and skills that merchandising professionals need to succeed in the retail industry. These knowledge and skills were systematically analysed and categorised into in several constructs, categories, and types to create a comprehensive classification. Based on this classification system, an apparel merchandising competency (AMC) framework was proposed. The AMC framework is an important contribution to the body of literature and has significant practical and theoretical implications. Both retailers and educators can use the AMC framework as it is specific to apparel merchandising and exemplifies the relevant knowledge and skills required by apparel merchandisers in the retail industry. This can be useful for developing curricula, guiding corporate training of new employees and interns, thereby, assisting retailers in increasing their competitiveness within the industry by installing the necessary knowledge and skills into their workforce.

Keywords: merchandising | skills | knowledge | competency framework

Article:

1. **Introduction**

Apparel merchandising professionals are actively involved in the planning and development of product lines as well as supply chain management of products to satisfy the requirements of the target consumer and optimise company profitability (Varley, 2014). To execute strategic and operational tasks across the complex apparel supply chain, merchandising professionals need specialised knowledge, ranging from product development to forecasting, assortment planning, sourcing, distribution, retail, and marketing (Frazier & Cheek, 2016; Howse, Hines, & Swinker, 2000). In addition, various soft skills (such as communication, leadership, teamwork, flexibility, and work ethics) are just as important as knowledge for professional success (Robles, 2012). To succeed in the global retail industry, apparel merchandising professionals need specific competencies that comprise of relevant knowledge and skills (Arnold & Forney, 1998). Glock and Kunz (2005) define an apparel professional as an 'individual who has education, training, and commitment to the management of an apparel business' (p. 629). Within the retail industry, apparel merchandising professionals manage and coordinate the development, buying, planning, sourcing and distribution of apparel products in the supply chain to offer the right merchandise assortment(s) that will satisfy a specific target market's needs and wants, as well as generate profit for the company (Glock & Kunz, 2005; Watchravesringkan et al., 2013. They are typically appointed in positions such as buyers, planners (also referred to as merchandisers), product developers, and sourcing coordinators (Kunz, 2010).

Types of knowledge and skills required by merchandising professionals to fulfil their responsibilities has been an important topic for retailers and educators. Retailers want to hire competent apparel merchandising graduates who require minimum training (Frazier & Cheek, 2016). Likewise, educators are mindful about the knowledge and skills their graduates must have when they enter the industry (Jackson, 2010). Consequently, career preparation requires identifying specific competencies needed for that career and incorporating them into curricula (Arnold & Forney, 1998). Based on this, past studies (e.g. Arnold & Forney, 1998; Frazier & Cheek, 2016; Hines & Swinker, 1998; Howse et al., 2000) investigated the knowledge, skills, or competencies required for apparel merchandising professionals.

A few studies (e.g. Alzahrani & Kozar, 2017; Chida & Brown, 2011; Wholesale and Retail Sector Education and Training Authority, 2016), have identified knowledge, skills, and competency gaps related to industry requirements. Further, understanding how the multitude of various knowledge and skills relate to each other to enhance specific competency is also needed. This might help in developing curriculum, review of programmes, and assessment of student learning outcomes. However, to date, there is no comprehensive framework that captures the range of competencies needed to operate and succeed in the apparel merchandising function. According to Sanghi (2016) a competency framework serves as a descriptive tool that outlines and integrates the knowledge and skills needed to effectively and efficiently perform in a position and helps the company to achieve its overall objectives; and correspondingly reflect the content of the discipline (Collet, Hine, & du Plessis, 2015). Therefore, a need to review previous

research to identify and classify the multitude of existing knowledge and skills into a merchandising specific competency framework was established.

Through a systematic analysis of previous research, this study aims to propose a comprehensive framework to organise various knowledge and skills essential for success in apparel merchandising. Specific research objectives were: (a) to compile a comprehensive list of merchandising knowledge and skills; (b) to categorise these knowledge and skills to create a classification matrix; and (c) based on this matrix, develop an apparel merchandising competency (AMC) framework. This study offers insight into the essential knowledge and skills required for apparel merchandising professionals in the retail industry. Furthermore, this study proposes an apparel merchandising specific competency framework that incorporates various knowledge and skills required.

To gain a better understanding, this paper presents existing literature to define the key constructs of competency, knowledge, and skill. Following this, the method employed to analyse, classify, and organise various knowledge and skills are discussed. The results of the content analysis are then presented as well as the development of the proposed AMC framework. The paper ends with conclusions and implications for educators, retailers, and future research.

2. Construct definitions

2.1. Competency

Competency describes the skills and knowledge required to be successful in a specific positions (Sanghi, 2016). Competency also relates to 'the application of knowledge and skills to meet complex demands' (Collet et al., 2015, p. 534). Competency is the culmination of relevant knowledge and skills obtained through training, education, and experiences (Pellegrino & Hilton, 2012). Being competent means not only having the right knowledge and skills but also being able to apply them (Gurteen, 1998). Competencies needed to perform specific tasks are the application of appropriate knowledge and skills and linked to the person's position or job description (Jackson, 2010). In this study, competency refers to the ability to apply relevant skills and knowledge needed for performing responsibilities related to apparel merchandising positions.

2.2. Knowledge

Knowledge refers to, 'awareness, or understanding gained through experience or study' (Johansson, Larsson & Wingård, n.d., p. 7). Knowledge is fundamentally about 'know-how and know-why' (Gurteen, 1998, p. 5). Knowledge are separated into explicit and tacit (Pellegrino & Hilton, 2012).

2.2.1. Explicit knowledge

Explicit knowledge is formally structured through scientific work and is easy to share and teach (Danskin, Englis, Solomon, Goldsmith, & Davey, 2005). It is what college graduates have learned in the discipline (e.g. apparel merchandising field) (Nonaka, Toyama, & Konno, 2000). To have knowledge in a specific field or discipline requires that there is subject matter to have knowledge about. The clothing and textile field has been validated as a scientific discipline with the specific subject matter (Ha-Brookshire & Hawley, 2013; Kaiser & Damhorst, 1991a). Fundamental or fact-based knowledge about textiles and apparel subject matter is primary to merchandising curricula (Fiore & Ogle, 2000). See section 4.1 for a detailed outline on explicit knowledge related to general apparel and merchandising.

2.2.2. Tacit knowledge

Tacit knowledge refers to what we know from our experiences and can be defined as 'subjective insights, intuitions and hunches' (Nonaka et al., 2000, p. 7); it is not easily formalized, shared or communicated (Nonaka et al., 2000). Tacit knowledge is gained from experience or practice in a certain context (Eraut, 1994). Tacit knowledge can be informally obtained and learned through observation and practice such as an apprenticeship (learning a craft form an expert), internship, or on the job training (hands-on learning by doing it yourself or observing) rather than through textbooks or manuals (Nonaka et al., 2000). This knowledge is more difficult to describe, define, and classify as it entails personal experience gained from working in the apparel retail industry.

2.3. Skills

Skills are the ability, aptitude, or capability to do a specific task well and are 'acquired or developed through training or experience' (Johansson et al., n.d., p. 7). Many scholars differentiate between soft and hard skills (e.g. Andrews & Higson, 2008; Robles, 2012; Yorke & Knight, 2003).

2.3.1. Soft skills

Soft skills are character traits or desirable qualities. Soft skills are generic skills, and they relate more to 'who we are than what we know' (Robles, 2012, p. 75). Soft skills form the basis of people-related skills (interpersonal) and personal or individual attributes (intrapersonal) and are transferable from one working situation to another such as communication skills (Andrews & Higson, 2008; Yorke & Knight, 2003).

2.3.2. Hard skills

Hard skills are linked to a person's technical and thinking abilities (Robles, 2012). Technical skills denote capabilities to effectively use technology as well as mathematical abilities to do calculations (Jackson, 2013). Thinking or conceptual abilities relate to higher order cognitive or reasoning skills which involve making sound judgements, critical thinking, problem-solving, decision-making as well as reflecting on experiences and learning (Danskin et al., 2005; Green, Hammer, & Star, 2009). As such, thinking skills are transferable and not discipline specific. Some technical skills are also transferable, such as numeracy or use of general software (e.g. Microsoft Office), whereas other technical skills are discipline specific. Use of specialised software such as virtual display of merchandise and store layout planning is an example of a technical skill specific to apparel merchandising.

3. Method

Content analysis was used to examine merchandising knowledge and skills in existing research. A total of 32 studies, published between 1991 and 2017, focused on knowledge and skills required for business, retail, and merchandising professionals were collected and analysed. Articles published in peer reviewed journals related to apparel, merchandising, and business such as Clothing and Textiles Research Journal; Journal of Knowledge Management; International Journal of Fashion Design, Technology, and Education; Business and Professional Communication Quarterly; Journal of Fashion Marketing and Management, and others were included. The inclusion of business-related articles was done on the premise that merchandising is a business function that links with other business functions such as finance, marketing, and operations in a retail company (Glock & Kunz, 2005). The focus of these studies included industry (e.g. Alzahrani & Kozar, 2017; Frazier & Cheek, 2016), industry-faculty-graduate (e.g. Chida & Brown, 2011; Rosenberg, Heimler, & Morote, 2012), and student (e.g. Andrews and Higson 2008; Power, 2010a, 2010b) perspectives.

Through the analysis of the 32 articles, a total of 140 different knowledge and skills important for merchandising, retail, and business positions were identified and then systematically classified. The classification procedure consisted of four stages. During each of the stages, the authors relied on existing literature to distinguish between skills and knowledge and related concepts and constructs (i.e. explicit vs. tacit knowledge; soft vs. hard skills; intrapersonal vs. interpersonal skills, etc.) and apply them to the merchandising field.

In stage 1, the analysis aimed to differentiate between the knowledge and skill constructs, using formal definitions presented above. Next, all identified knowledge items were classified into two constructs: explicit and/or tacit knowledge. Similarly, all identified skill items were classified into two distinct constructs: soft and/or hard skills. As a result of Step 1, all 140 identified knowledge and skill items were classified into the four main constructs. For example, knowledge related to textile, apparel, business, merchandising, and retail subject matter was classified as explicit knowledge, while knowledge that can be gained through personal experience, practice, or observations was classified as tacit knowledge. Similarly, the ability to

connect with people or having specific personal traits were classified as soft skills, whereas the ability to do a technical or thinking task well was classified as hard skills.

Stage 2 of the classification process comprised of identifying categories within each of the four main constructs. Seven categories (Tables 1–3) were identified from extant research to group knowledge and skill items that fit in the respective categories. For example, soft skills were separated into two categories namely, interpersonal and intrapersonal. These two categories were based on the description of soft skill in literature, which distinguish between having desirable people-related skills (interpersonal) and individual's personal attributes or qualities (intrapersonal) (Andrews & Higson, 2008; Yorke & Knight, 2003). How the categories were identified/created for the other constructs are explained in detail below.

In Stage 3, knowledge and skills within each category were classified into different types. A total of 16 distinct knowledge and 23 skills types were identified within the seven categories. Finally, in Stage 4, all individual knowledge and skills, referred to as dimensions, were carefully considered for redundancy to include them into the final classification matrix. During the Stages 3 and 4, the authors carefully discussed each dimension, referring back to the literature where the individual knowledge and skills were identified, to come to a final agreement. After the classification process of knowledge and skills was completed, four existing competency frameworks were analysed by the authors to propose a new framework, specific to merchandising knowledge and skills. Analyses were done on the premises of descriptions and definitions presented in the literature.

Table 1. Explicit and tacit knowledge important for merchandising professionals

Types of knowledge	Dimensions of knowledge
Explicit knowledge	
General apparel knowledge category	
Apparel product	Product performance (physical, chemical, biological, and social), product quality, product safety
Aesthetics	Aesthetic principles, design elements, design principles
Consumer behaviour	Consumption behaviour, target market analysis
Fashion	History, fashion cycles, fashion theories, forecasting
Manufacturing	Production systems, patternmaking, quality assurance, construction techniques
Social-cultural aspect	Appearance management, appearance communication, symbolic identity creation

Sustainability	Socially and environmentally responsible practice
Textiles	Fibers, yarns, fabrics (properties & structure), product care/maintenance
Merchandising knowledge category	
Business	Finance, HR, accounting, sales, entrepreneurship, business theories, competition
Marketplace awareness	Organizational and commercial (internal), ecological, global, political, economic, social (external)
Marketing	Product positioning, branding, market segmentation, pricing, promotions, customer service
Assortment management	Range building, product management, buying and planning processes, stock replenishment
Product development	Line (range) planning, line development, sizing and fit
Retail operations	Retail principles, technology systems, global retail operations, distribution
Sourcing	Supply chain management, trade policies, industry regulations, logistics
Tacit knowledge	
Experience category	
Professional experiences	Internship, retail work (in-store), on the job training

Table 2. Soft skills important for merchandising professionals

Type of soft skills	Dimensions of soft skills
Interpersonal category	
Communication	Verbal, writing, presentation, listening
Courtesy	Polite, respectful, considerate
Diplomacy	Negotiation, discreet, resolve conflict
Leadership	Motivates others, coaches/mentors, monitors performance, functions in diverse settings, goal-setting

Professional behaviour	Businesslike (complying to codes of conduct) well-dressed (following dress code of workplace)
Social	Pleasant, friendly, sense of humour, intercultural awareness
Teamwork	Cooperative, collaborative, supportive, helpful, trust others, encouraging
Intrapersonal category	
Flexibility	Adaptability, willingness to change, appearance of new things
Integrity	Honest, ethical, high morals, does the right thing
Administrative	Project management, time management, multi-tasking, prioritising
Positive attitude	Optimistic enthusiastic
Responsibility	Accountable, reliable, gets the job done
Self-management	Disciplined, stress tolerance, work-life balance, independent
Self-evaluation	Realistic judgement of abilities, evaluation of values and beliefs
Work ethic	Hard working, loyal, self-motivated, punctual, good attendance

Table 3. Hard skills important for merchandising professionals.

Types of hard skills	Dimensions of hard skills
Technical category	
Numeracy	Mathematical, budgeting, costing
Technology	Information systems management, use of databases, industry specific software programmes
Thinking/conceptual category	

Critical thinking	Pattern recognition, conceptualisation, evaluation, interpretation
Decision-making	Lateral thinking, use of information to make decisions
Innovation	Creativity, original ideas, resourcefulness, implementation of ideas
Metacognition	Self-awareness, lifelong learning, reflecting on experiences
Problem solving	Analytical reasoning, diagnosing
Strategic thinking	Planning, visioning

4. Theoretical underpinning for framework development

4.1. Knowledge required for merchandising professional

4.1.1. Explicit knowledge

Literature stresses the importance of discipline-specific knowledge in the apparel industry (Chida & Brown, 2011; Muhammad & Ha-Brookshire, 2011). Merchandising and retail functions include complicated processes that must be synchronised and managed within the retailer's organisational structure and the entire supply chain (Watchravesringkan et al., 2013). Apparel merchandisers therefore, need to have explicit knowledge about apparel products, processes involved in producing products, and consumer behaviour. In addition, merchandising is a retail function that interlinks with other business functions, therefore types of explicit knowledge pertaining to retailing, business, marketing, finance, logistics, legal, and trade as well as external environmental factors influencing products, processes, and consumers are needed. Based on the premise of the apparel merchandising definition, two explicit knowledge categories were proposed: general apparel knowledge and merchandising knowledge.

General apparel knowledge. To clarify what general apparel knowledge is essential for merchandising professionals, literature pertaining to the development of apparel subject matter was analysed. In the 1990s, Kaiser and Damhorst (1991a, 1991b) clarified the subject matter of textiles and apparel by distinguishing between three main areas: (a) textile product evaluation by consumers; (b) appearance and social realities (how meaning is created through consumers' interaction with other consumers and products); and (c) processes and systems for manufacturing, merchandising and distribution of textile and apparel products. A decade later, Fiore and Ogle (2000) proposed a model that followed an integrated approach to textiles and apparel subject matter. The model included: (a) merchandising decision-making (i.e.

development, gate-keeping, and promotion); (b) the product or environment (i.e. formal-, expressive-, and symbolic qualities); (c) consumer socio-cultural and individual differences that influence perceived product value; (d) aesthetics and instrumental benefits derived by consumers; and (e) the global context which are the external influencing factors (e.g. economic, legal, political, technological). In 2012, Ha-Brookshire and Hawley (2013) proposed that the domain of clothing and textiles include: (a) humans' needs and wants (influenced by various external factors such as natural, social, political, economic, technological, cultural, etc.); (b) apparel supply chain (forecasting, consumer research, design, product development, merchandising, sourcing/production and retailing); and (c) humans' satisfaction as an outcome.

Analyses of the three frameworks, discussed in the above paragraph, allowed to identify eight common apparel subject matter areas. These areas were used to form the eight types of general apparel knowledge deemed important for apparel merchandising professionals: apparel product, aesthetics, consumer behaviour, fashion, manufacturing, social-cultural aspects, sustainability, and textiles (Table 1). Next, based on an extensive analysis of the literature, dimensions for each type of general apparel knowledge were identified. Additional types of knowledge identified in these three frameworks included: (a) distribution systems and supply chain, (b) product development, (c) assortment management, (d) sourcing, as well as (e) external influencing factors (i.e. social, political, economic and global contexts) (Fiore & Ogle, 2000; Ha-Brookshire & Hawley, 2013; Kaiser & Damhorst, 1991a, 1991b). These types of knowledge were classified under the merchandising knowledge category as extant research indicates these areas of knowledge to be essential for apparel professionals (Alzahrani & Kozar, 2017; Frazier & Cheek, 2016; Ha-Brookshire & Hawley, 2013; Hodges et al., 2011).

Merchandising knowledge. Given the overlap of business and merchandising functions, Muhammad and Ha-Brookshire (2011) argue that business knowledge is increasingly more important for merchandising professionals. This includes knowledge of finance, accounting, sales, and entrepreneurship (Alzahrani & Kozar, 2017; Watchravesringkan et al., 2013). To differentiate from the competition, apparel companies rely heavily on marketing knowledge, which includes product positioning, branding, and market segmentation (Danskin et al., 2005).

Due to the global nature of the textile and apparel industry, knowledge about supply chain management, global retail operations, and legal and political environments is critical (Yu & Jin, 2005). Moreover, to understand global manufacturing and distribution networks, merchandisers need comprehensive knowledge about international trade and regulations (Hodges et al., 2011). This is in agreement with Frazier and Cheek (2016), who found process knowledge, global awareness, and human factors to be the most important areas of knowledge for entry-level merchandising positions. Likewise, Ha-Brookshire and Hawley (2013) emphasise awareness of global, economic, and political issues and social/cultural change as important areas of knowledge for the clothing discipline. Based on the extant research, the seven types of merchandising knowledge include: business, marketplace awareness, marketing, assortment management, product development, retail operations, and sourcing (Table 1). Next, based on an extensive analysis of the literature, dimensions for each type of merchandising knowledge were identified.

4.1.2. Tacit knowledge

Experience in the industry has been found to be important to function in sourcing positions (Muhammad & Ha-Brookshire, 2011) as well as for entry-level merchandising jobs (Frazier & Cheek, 2016) and in apparel retail (Alzahrani & Kozar, 2017). To capture tacit knowledge, one category pertaining to experiences in general was created, with professional experience as a type of tacit knowledge. Dimensions included in this type of knowledge included: internship, retail job, and on the job training (Table 1).

In conclusion, merchandising professionals have to possess specific explicit and tacit knowledge. Gereffi (1999) argues that sourcing, for instance, requires both explicit and tacit knowledge regarding how and where to acquire or produce the right products to maximise profits. Even though explicit apparel and merchandising knowledge provides a sound theoretical foundation, tacit knowledge is very important as it allows intuitive decision-making and problem-solving (Nonaka et al., 2000).

4.2. Skills required for merchandising professionals

4.2.1. Soft skills

Based on how soft skills are defined in the literature, two categories for soft skills were identified namely, interpersonal and intrapersonal. Robles (2012) identified ten types of soft skills as important for business executives in the twenty-first century: communication, courtesy, flexibility, integrity, interpersonal skills, positive attitude, professionalism, responsibility, teamwork, and work ethic. Additionally, Javidan, Teagarden, and Bowen (2010), argued people working in global industries, such as apparel retail, should have intercultural awareness and diplomacy. Jackson (2013) confirmed these soft skills and also added leadership, organisational skills, self-management and self-evaluation. Based on the analysis, fifteen distinct types of skills were proposed: seven in the interpersonal category and eight in the intrapersonal category (Table 2).

All soft skills identified as important for merchandising professionals in extant research were first classified into one of the two categories and then into one of the fifteen types. Building on Rosenberg et al. (2012), Javidan et al. (2010), and Jackson (2013), communication, courtesy, diplomacy and leadership were classified as types under the interpersonal category and flexibility, integrity, organisational, positive attitude, responsibility, self-management, self-evaluation and work ethic as types under the intrapersonal category. Next, every soft skill was categorised into one of the fifteen types (Table 2).

Interpersonal skills. Communication and teamwork were identified as the most important skills across all retail functions (Clokie & Fourie, 2016). Writing reports, business letters, and emails as well as conducting meetings and oral presentations were essential skills (Goworek, 2010). In the global apparel industry, communication is important for merchandising

professionals because of reliance on cross-functional and often virtual teamwork (Karpova, Jacobs, Lee, & Andrew, 2011). Likewise, teamwork is critical for establishing partnerships across organisational and cultural boundaries (Karpova et al., 2011). Consequently, people working in global industries, such as the apparel and textile industry, should also have social, courtesy, and diplomacy skills to build these relationships across diverse organisational and cultural boundaries (Javidan et al., 2010; Rosenberg et al., 2012). In addition, Frazier and Cheek (2016) identified professional behaviour and leadership as important soft skills for merchandising positions (Table 2).

   Intrapersonal skills. Several studies stressed the importance of certain personal qualities such as flexibility, administrative or managerial skills, integrity, positive attitude, and self-evaluation for business professionals (Jackson, 2013; Rosenberg et al., 2012). Yorke and Knight (2003) suggested that self-management, especially stress tolerance and work-life balance were also desired competencies in a business environment. Taking responsibility for one's work (Rosenberg et al., 2012) and having sound work ethics were identified as important personal traits in business and merchandising (Frazier & Cheek, 2016).

4.2.2. Hard skills

   According to Robles (2012) hard skills can be divided into a person's technical ability in terms of a specific practices as well as thinking or conceptual capabilities related to higher order thinking. Based on this description, two categories for hard skills were created namely, technical and thinking or conceptual. Jackson (2013) identified numeracy, critical thinking, problem solving, decision-making, and self-awareness as important hard skills for business executives. Innovation and strategic thinking (Danskin et al., 2005), metacognition (Power, 2010a) and technology proficiency (Fiorito, Gable, & Conseur, 2010) were additional hard skills identified for merchandisers. Within the two categories, hard skills were classified into eight types, following Jackson (2013), Danskin et al. (2005), Power (2010a), and Fiorito et al. (2010). Numeracy and technology skill types were classified under the technical category. Critical thinking, decision-making, innovation, metacognition, problem-solving, and strategic thinking skill types were classified under the thinking/conceptual category (Table 3). Next, all individual hard skills from extant research were classified into one of the eight types of hard skills. For example, reflection on experiences was classified into the metacognition type, within the thinking/conceptual category.

   Technical skills. Skills identified in the literature that relate to someone's technical abilities were numeracy proficiency and use of technology (Jackson, 2013). Numeracy relates to the accurate use of numbers and data to calculate the budget and cost of products (Jackson, 2010). Similarly, Howse et al. (2000) surveyed apparel retail buyers and identified mathematical skills (e.g. costing, budgeting) as one of the most important skills for merchandisers. Technological aptitude, using industry specific types of databases and software programmes to do analysis, as well as management of information systems have become essential to perform

daily tasks in the business environment (Schlee & Harich, 2010). Likewise, being proficient in industry specific technologies that support merchandisers to perform their responsibilities were reported to be very important for merchandisers (Fiorito et al., 2010; Muhammad & Ha-Brookshire, 2011).

Thinking or conceptual skills. Thinking or conceptual skills are highly valued in business (Jackson & Chapman, 2012). Especially, critical thinking and problem-solving are desirable hard skills in any business context (Bridgstock, 2009). This agrees with Chida and Brown (2011) and Frazier and Cheek (2016) who found critical thinking, problem solving, decision-making, and innovation to be important skills for merchandising professionals. In addition, reflecting on learning and self-awareness (metacognition) was identified as essential skills in product development and merchandising studies (Power, 2010a, 2010b).

4.3. Analysis of existing frameworks

Four existing competency frameworks were analysed (Frazier & Cheek, 2016; Pellegrino & Hilton, 2012; Power, 2010b; Yorke & Knight, 2003). Power (2010b) identified four key areas of competencies to make apparel graduates more employable: (a) technical competencies (knowledge, understanding and abilities); (b) life skills for a globalised knowledge economy (interpersonal and intrapersonal skills); (c) higher order cognitive skills (analysis, synthesis and evaluation); and (d) metacognitive strategies (learning how to learn and appreciating skill development). This framework augments Yorke and Knight's (2003) more general Understanding, Skills, Efficacy, and Metacognition framework that outlines four competency areas: (a) understanding (knowledge); (b) skilful practices (deployment of skills); (c) efficacy beliefs (how effective people view themselves); and (d) metacognition (self-awareness and capacity to reflect on learning).

Frazier and Cheek (2016) surveyed mid-level retail managers to explore important competencies for entry-level merchandising positions using the International Textiles and Apparel Associations (ITAA) baccalaureate meta-goals as a framework. The ITAA meta-goals include professional skills and knowledge deemed important to function effectively in the textile and apparel industry. Professional skills included: (a) ethics; (b) critical and creative thinking; and (c) professional development (communication, teamwork, intercultural awareness, leadership; and applying career planning concepts). Understanding and knowledge covered: (a) social responsibility and sustainability; (b) industry processes; (c) appearance and human behaviour; (d) aesthetics and design process; and (e) global interdependence.

Pellegrino and Hilton's (2012) competency domain framework distinguishes between three domains of competencies: (a) cognitive; (b) interpersonal; and (c) intrapersonal. The competency domain framework describes how different knowledge and skills from each domain contribute to improve the overall level of a person's competence. Furthermore, within each competency domain, different clusters are identified that group types of knowledge or skills.

The ITAA meta goals, the USEM, and Power's key areas of competencies did not provide a solid framework to systematically classify identified merchandising knowledge and skills from the content analysis (Tables 1–3). Therefore, Pellegrino and Hilton's (2012) framework was employed as the competency domains aligned well with the knowledge and skill constructs identified through the analysis of literature. The different clusters provided an effective and efficient way to classify all identified types of merchandising knowledge and skills.

4.4. Merchandising competency framework

All knowledge and skills identified as important for merchandising positions through the content analysis (Tables 1–3) were systematically classified by the researchers into Pellegrino and Hilton's (2012) competency framework, as follows:

- First, all categories of knowledge and skills were classified into one of the three domains (cognitive, interpersonal, and intrapersonal). Knowledge (Table 1) and hard skills (Table 3) were classified into competencies related to the cognitive domain. Together, interpersonal (people-related) and intrapersonal (personal attributes) domains covered the soft skills categories summarised in Table 2.
- Next, within each of the three domains, all types of knowledge and skills were classified into an appropriate cluster identified by Pellegrino and Hilton's framework as discussed below.

4.4.1. Cognitive competency domain

Cognitive competency domain refers to the reasoning and memory ability and includes three competency clusters: (a) cognitive processes and strategies; (b) innovation and creativity; and (c) knowledge (Pellegrino & Hilton, 2012). Based on Tables 1 and 3, knowledge (explicit and tacit types) and hard skills (technical and thinking/conceptual types) were classified in one of the three cognitive domain competency clusters.

Cognitive processes and strategies are valued by apparel retail companies as they reflect a person's ability to combine thinking/conceptual skills and technical skills in the work place. Cognitive processes also relate to how a person puts into practice what has been learned and being aware of thinking processes (i.e. metacognition) (Power, 2010b). From Table 3 the technical types (i.e. numeracy, technology) and the thinking/conceptual types (i.e. critical thinking, decision-making, metacognition, problem-solving, and strategic thinking) were classified under the cognitive processes and strategies cluster.

Innovation and creativity cluster covers original ideas, resourcefulness, and implementation of ideas. Creativity is about using mental processes and knowledge to generate new and original ideas, whereas innovation is about the implementation of new ideas (Gurteen, 1998). Creativity is a highly-valued skill in the apparel industry (Karpova, Marcketti, & Kamm,

2013). It was found to help apparel professionals be more efficient and effective in performing their daily tasks and responsibilities (Karpova et al., 2011). From Table 3 the thinking/conceptual type innovation was classified into the innovation and creativity cluster.

Knowledge, especially discipline-specific knowledge, is very important for performing tasks in merchandising positions (Muhammad & Ha-Brookshire, 2011). Merchandising professionals need to have the right explicit knowledge, but should also know how to use it (tacit knowledge) to create a competitive advantage for their company (Chida & Brown, 2011; Danskin et al., 2005). From Table 1, general apparel knowledge types and merchandising knowledge types were classified under the knowledge cluster.

4.4.2. Interpersonal competency domain

The interpersonal domain refers to the expression of ideas and interpretation and response to messages from others (Pellegrino & Hilton, 2012). Two competency clusters are included in this domain: (a) teamwork and collaboration, and (b) leadership. If interpersonal skills are well-developed, it will become interpersonal competencies that determine how well a person work with others as well as guiding and developing others.

Teamwork and collaboration represents interpersonal soft skills related to interaction with others. From Table 2, interpersonal skills that form the basis of people-related skills were classified under this competency clusters. Interpersonal skills classified under this cluster are communication; courtesy; professionalism; social; and teamwork. The critical importance of communication and teamwork skills is evident in the context of the apparel industry and were the common competencies cited by many studies as desirable (Alzahrani & Kozar, 2017; Frazier & Cheek, 2016).

Leadership signifies a person's ability to motivate, direct, and cultivate relationships with others in the working environment. Interpersonal skills types (Table 2) classified under this cluster include diplomacy and leadership. Leadership was found to be one of the most important competencies for entry-level apparel merchandising jobs (Frazier & Cheek, 2016). Well-developed leadership skills will grow in desired competencies such as motivating, supporting, and developing others, and own professional development (Jackson & Chapman, 2012).

4.4.3. Intrapersonal competency domain

Intrapersonal skills are transferable soft skills that represents personal attributes/traits possessed by an individual (Andrews & Higson, 2008). The intrapersonal domain consists of three competency clusters: (a) intellectual openness; (b) work ethic and conscientiousness; and (c) positive core self-evaluation (Pellegrino & Hilton, 2012). If intrapersonal skills are well developed, they will become intrapersonal competencies. Intrapersonal skill types from Table 2 were classified in one of the three intrapersonal competency clusters.

Intellectual openness denotes a person's capability to adapt to change, new ideas, and environments as well as ability to be flexible and appreciate diversity (Pellegrino & Hilton, 2012). The intrapersonal skills type from Table 2 classified under the intellectual openness cluster was flexibility. Flexibility defines a person's ability to deal with change, which is intrinsic to the fast-paced apparel retail industry. Merchandising professionals have to be able to adapt to a constantly evolving globalised economy (Power, 2010b).

Work ethics and conscientiousness represents the tendency to be responsible, hardworking and organised. This cluster also denotes intrapersonal skills related to work ethics such as being loyal, self-motivated, and on time (Pellegrino & Hilton, 2012). The types of intrapersonal skills from Table 2 classified under this cluster were: responsibility; self-management; integrity; organisational skills; and work ethic. Applying ethics in work related decision-making is highly valued in the apparel industry (Frazier & Cheek, 2016; Muhammad & Ha-Brookshire, 2011).

Positive core self-evaluation pertains to individuals' self-knowledge and self-efficacy (Pellegrino & Hilton, 2012). Intrapersonal skills types from Table 2 classified under this cluster include a positive attitude and self-evaluation. Watchravesringkan et al. (2013) found personal values related to self-accomplishment and self-respect important for successful apparel entrepreneurs. A person's ability to realistically judge his/her goals, values, and interest (Bridgstock, 2009) and identify and evaluate own strengths and limitations are essential to improve self-confidence and positive attitude (Alzahrani & Kozar, 2017).

Based on the classification of merchandising types of knowledge and skills (Tables 1–3) into the respective domains and clusters, the proposed merchandising competency framework was developed (Table 4).

Table 4. Apparel merchandising competency (AMC) framework.

Competency domain	Cluster	Construct	Category	Types
Cognitive competency	Cognitive processes and strategies	Hard skills	Technical skills	Numeracy
				Technology
		Hard skills	Thinking/ conceptual skills	Critical thinking
				Decision-making
				Metacognition

				Problem-solving
				Strategic thinking
	Innovation and creativity	Hard skills	Thinking/ conceptual skills	Innovation
	Knowledge	Explicit knowledge	General apparel knowledge	Apparel product
				Aesthetics
				Consumer behaviour
				Fashion
				Manufacturing
				Social-cultural aspect
				Sustainability
				Textile
		Explicit knowledge	Merchandising knowledge	Business Marketplace awareness
				Marketing
				Assortment management
				Product development
				Retail operations
				Sourcing
		Tacit knowledge	Experience	Professional experience
Interpersonal	Teamwork and	Soft skills	Interpersonal	Communication

competency	collaboration			
				Courtesy
				Professionalism
				Social
				Teamwork
	Leadership	Soft skills	Interpersonal	Diplomacy
				Leadership
Intrapersonal competency	Intellectual openness	Soft skills	Intrapersonal	Flexibility
	Work ethnics and conscientious-ness	Soft skills	Intrapersonal	Integrity
				Organisational skills
				Responsibility
				Self-management
				Work ethic
	Positive care self-evaluation	Soft skills	Intrapersonal	Self-evaluation
				Positive attitude

5. **Conclusions and implications**

Competent merchandisers contribute to the overall performance and success of a retail company (Howse et al., 2000). The results of this study indicate that apparel merchandising professionals need to have a multitude of knowledge and skills to be competent and, ultimately, build a successful career. Through the analysis of extant literature,

- four main constructs (explicit and tacit knowledge, and soft and hard skills),
- seven categories (general apparel knowledge and merchandising knowledge, experience, interpersonal and intrapersonal, technical and thinking/conceptual),

- 39 types (Tables 1–3), and
- 140 individual knowledge and skills dimensions were identified and classified.

Based on this classification, apparel merchandising competency (AMC) framework, was proposed, following the Pellegrino and Hilton's (2012) competency domain framework. AMC framework is discipline-specific and organises a multitude of merchandising knowledge and skills into three competency domains and eight clusters. The AMC framework illustrates how each knowledge and skill construct, category, and type contribute to developing competent merchandising professionals in the respective competency domain and the overall competency. Pellegrino and Hilton (2012) argue that competencies from all three domains (cognitive, interpersonal, and intrapersonal) can be taught and obtained by students during their college career. The best way to train future industry professionals is by aligning merchandising programmes with professional competencies (Arnold & Forney, 1998). Educators can utilise the AMC framework for developing curricula and identifying curricula gaps what should be emphasised to prepare graduates for success in the retail industry. In addition, educators can use the AMC framework as a baseline to develop and assess learning outcomes that are in alignment with industry requirements.

For retailers, the framework might be useful when planning various training programmes for interns or new employees as well as to instil the necessary competency into their current workforce to be more competitive. From a theoretical perspective, the AMC framework makes an important theoretical contribution by clarifying and organising various merchandising knowledge and skills examined in extant research. Future research can attempt to prioritise the knowledge and skills to establish the critical vs. relatively important vs. 'nice to have' merchandising knowledge and skills. As Pellegrino and Hilton (2012) pointed out, the 'taxonomy offers a useful starting point, but further research is needed to more carefully organise, align, and define' the proposed domains and clusters of the framework (p. 12). Therefore, the apparel merchandising competency framework is fluid, and new knowledge and skill types and dimensions can be added to the developed types and dimensions as the industry evolves and the need for new knowledge and skills emerged.

From the literature review, it is evident that a plethora of studies have focused on various aspects of knowledge, skills, and competencies either from a business, retail/ merchandising, faculty or student perspective. However, the value of this paper will be in future studies that validate the apparel merchandising framework from industry, faculty, and student perspectives, to establish if the knowledge and skills included are essential to function successfully in the apparel retail industry. Future studies can also investigate specific domains or clusters for particular merchandising positions such as buyers, product developers, sourcing coordinators, or allocation planners in apparel retail.

Disclosure statement

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