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Clashes of ICT Implementation and Owners' Business Philosophy: Stories from the Designer-Owned SMEs in the Australian Clothing Industry

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Abstract

The ever-increasing competition in the domestic and global market presents a critical need for the Clothing Industry to achieve and maintain its competitiveness, particularly against the price-competitive imports in the domestic market. Consequently, the Industry is under pressure to improve efficiency and effectiveness in the domestic market and to explore opportunities for the export market. This pressure has led the Industry and the Government to consider ways to adopt and effectively use information and communication technologies. While the Industry demonstrated fast adoption of technologies during the industrialisation of garment production, it has been slow in its take-up of new information and communication technologies, particularly e-commerce.

This study identifies how the Boutique Fashion designers, managing SMEs in Melbourne, use new information and communication technologies. It is based on existing literature and data obtained through face-to-face open-ended interviews. Based on user-centred approach, it places the Boutique Fashion designers and their activities at the centre of the study and explores how their activities fit with technologies and how these technologies in turn fit or do not fit the SME designers' business activities, both sales and production activities.

The findings confirm that, regardless of their philosophical approaches to their businesses, the designers in the Boutique Fashion Industry commonly regard their businesses as an art business. Consequently, there is a conflict of art versus technology, particularly when the technology is seen as a machine. The use of technologies often threatens the artists in terms of easy reproducibility, authenticity, creativity and craftsmanship. These threats arising from the use of technology still linger amongst the interviewed designers and seem to influence their use of technologies.

1. Setting the Scene

The Australian Clothing Industry is an integral part of the Australian economy, providing an important source for employment opportunities. The industry, however, is under increasing pressure to improve its competitiveness in the domestic and global markets. In terms of achieving competitiveness, the Australian Government sees the use of new information and communication technologies (ICTs) as providing the Textile, Clothing, Footwear and Leather (TCFL) Industries with a competitive edge (DISR 1999b). The adoption of ICTs was also seen to lead to greater efficiency of the Australian industries, particularly via business-to-business e-commerce (NOIE 2000b). This, however, has not been altogether easy, particularly for the Australian Clothing Industry and their adoption of e-commerce. According to a study by Arthur Andersen Business Consulting (1997), electronic ordering is still an unfamiliar concept for the Australian apparel sector. Another study suggests that, although achieving small but important changes, the use of the technologies by the Industry is limited (CIRCIT 1999).

The Australian Clothing Industry, of which the Boutique Fashion Industry is a part, has a small number of large businesses—only five per cent of total TCFL (Textile, Clothing, Footwear and Leather) industry establishments—and a proliferation of small businesses (Industry Commission 1997). The latest Industry statistics show that the TCFL Industries account for four per cent of manufacturing value added and around four per cent of consumer expenditure (DIST 1999; DISR 1999b). The Industries (including Clothing, Footwear and Textile industries) generated in excess of A\$9.1 billion turn-over between 1996 and 1997. An increasing number of SMEs were established between 1990 and 1997. During this period, the number of clothing businesses increased from 2,354 establishments to 5,142 establishments while the Industry's turnover and value added showed only a minor increase.

The TCFL Industries, including the Clothing Industry, have experienced shifts in the Government's Industry policies from self-sufficiency and employment creation to building a globally competitive Industry. In the 1980s, Australian industries moved away from economic nationalism and industry protection to market openness embracing a new growth strategy (Waller 2000; Singleton 1997). The tariff liberalisation of TCFL goods in the early 1990s — which was implemented 15 years before the World Trade Organization's Agreement on Textile and Clothing in 2005 — sped up the Government intervention focusing on structural adjustment during 1993 and 1998 (DISR 1999b). This made it difficult for the Australian TCFL industries to compete with cheaper goods manufactured overseas. The proportion of the imported clothing sold in Australia increased from approximately 25 per cent in 1986-1987 to 60 per cent in 1989-1990 and 78 per cent in 1999 (DISR 1999b). Consequently, the industries recorded a 3.9 per cent negative growth in production and 10.9 per cent negative growth in employment between 1997 and 1998 (DISR 1999a).

This changing environment of the TCF Industries continues to pressure the businesses and the Government. The recently released 'Position Paper' by the Productivity Commission (2003) explored preliminary options for assisting the Australian Industries beyond the 2005 zero tariff environment. Triggered by this changing trade environment, Government policy started addressing the Industries' competitiveness. This included a range of enterprise improvement programs, encouraging productivity improvements, export market development and improvement of the Industries' competitiveness in the global

market (DISR 1999b; Productivity Commission 2003). Subsequently, the use of information and communication technologies was seen as particularly critical for achieving further competitiveness of the TCFL Industries.

In regard to the use of technologies, the Clothing Industry has been proactive in adopting certain technologies. By using the labour saving machineries, the Clothing Industry took a leading part in the Industrial revolution (Dickerson 1995). Starting from the early industrial machines that revolutionized textile production, technologies played an important role in the development of the Clothing Industry (Burns & Bryant 1997; Dickerson 1995). The growing need for achieving competitiveness during the 1970s and the 1980s led the Industry to discover and adopt technological solutions, which included the adoption of QR strategy and technologies, and their associated technologies such as EDI (Electronic Data Interchange), CAD (Computer-Aided-Design) and POS (Point of Sale) systems (Winchester 1994).

According to the recent Government report (DISR 2000), the Australian Clothing Industry seems to be investing less in IT compared with its overseas counterparts, while the possible IT uses in the Industry have grown considerably. Similarly, the implementation of EDI in Australia was slow, particularly with small businesses in the Clothing Industry. A study by AEGIS: University of Western Sydney (1999) suggests that the technological and management system changes had not affected manufacturer and supplier relations as much as those with retailers. The study reports that no suppliers seem to use EDI and most small firms in the Clothing Industry had barely got up to the level of adopting a fax machine. Similar suggestions were found in the CIRCIT report (1999). Although CAD and CAM are the first areas to impact the design technologies for the Clothing Industry, while most large garment manufacturers have some form of a CAD/CAM grading and marking system in use, the adoption by SMEs is relatively low (Byne 2000; Scruby & Raymond 1995).

Predictions about the future directions of the TCFL Industries' use of the World Wide Web (WWW) as a sales channel—electronic commerce (e-commerce) or online sales—vary from extreme optimism to pessimism. The Australian Government predicted that by the year 2002 the Web might be used for more than A\$300 billion worth of commerce between businesses worldwide (NOIE 1998; DFAT 1997). Although the Web was seen as being significant for SMEs in the Clothing Industry and for their competitiveness, the government identified barriers in the use of the Web for online sales. These barriers include: Australia's lack of mail order history, deriving from the experience of buying clothing as a social occasion and difficulties in presenting the garments' quality on the PC screen (DFAT 1999). Notably, Australians' lack of the catalogue shopping experience was perceived as the main barrier for online shopping.

The definition of the Boutique Fashion Industry is not certain though the term is widely used by the people in the Fashion Industry. Regardless of the vagueness of the definition, the meaning of 'Boutique Fashion' seems clearly understood by the designers in the Industry as they distinguish their businesses from Mass Fashion businesses. Therefore, it is useful to define the meaning of 'Boutique Fashion' by distinguishing it against the other types of Fashion businesses:

'Boutique Fashion' businesses are smaller and less well known than '*Couture*' (Burns & Bryant 1997), which produces made-to-order garments for individuals or sells the highest-priced apparel in small quantities. They produce clothing with a particular focus on design, which is one of the measures distinguishing them from Mass Fashion businesses. While Mass Fashion products are mass-produced and sold in quantity in a cheaper price range through diverse retail channels (Sproles & Burns 1994), the Australian Boutique Fashion businesses tend to have a lower price-range and social status compared with those of 'High Fashion' or '*Couture*.' They supply their products to exclusive boutiques and particular retail channels.

In this paper, I explore the adoption of ICTs by the Boutique Fashion designer owned SMEs in the Clothing Industry. This investigation particularly focuses on the adopters, in this case the designers, and their business activities and philosophical approaches towards managing businesses. Based on a literature review and data analysis of 15 open-ended interviews with designers, this paper explores the factors influencing the designers' adoption and use of ICTs.

2. Research questions and Methods

The use of ICTs by the Boutique Fashion designers was explored by reviewing secondary sources, complemented with open-ended interviews with 15 Boutique Fashion designers who own SMEs in Melbourne. In so doing, the research focused on the relationship between the designers' philosophy and their adoption of ICTs. Within the framework of a qualitative study, the data collection and analysis were performed with a grounded theory approach, and analysed using NUD*IST Nvivo, a computer program supporting the analysis of qualitative studies.

This study of Boutique Fashion designers and their use of ICTs, was conducted to seek answers to two main research questions:

- How do Melbourne Boutique Fashion designers who own SMEs use ICTs?
- What is the relationship between the designers' philosophical approaches to their business management and their adoption and use of ICTs?

The study took a user-centred approach in exploring the questions. This means that the SME owners were seen as users of technology and their perspectives on the adoption and use were central to the study. In so doing, the designers' technology use was examined with a particular focus on four business activities: technology use for communication, managing the business, design and selling.

Data collection and analysis was done following qualitative research and grounded theory analysis. Qualitative research was chosen because, in searching for some sort of local or context-grounded truth, the researcher is able to utilise the process of interpretation of the collected data (Denscombe 1998). This means that, through the self-discourse, the collected data is produced by the way they are interpreted and used by the researchers, rather than being presented as raw materials (Lincoln &

Cuba 2000). Grounded theory is employed because it describes that the emergence and development of theories comes as part of the process of research. Adopting this theoretical approach indicates a rigorous approach in two ways: theories are built based on empirical reality, and emerging theories are constantly refined during the process of the research (ibid).

The face-to-face interviews with 15 designers took place in their workplaces and 'the recursive model of interviewing' (Minichiello, et al. 1995). The field notes were useful for recording the post-interview conversations, which sometimes revealed more interesting and honest views of the interviewees. NUD* IST (Non-numerical Unstructured Data Indexing, Searching and Theorizing) Nvivo was used for analyzing the data. Using this program makes the researchers' work easier by providing an easy storage of large scale and complex data analysis and easy coding and retrieval of data (Richards 2000; Richards & Richards 1994; Denscombe 1998).

Fourteen Boutique Fashion designers and one fashion and textile designer were interviewed. Pilot interviews were conducted with two designers who both owned micro-small businesses. The focus of the pilot interviews was on the use of e-commerce in the Boutique Fashion Industry, which presented a sense of slow e-commerce uptake by the Industry. Consequently, this was reflected in designing further interview samples and a broader group of designers both with and without e-commerce were interviewed. The sample varied in terms of age, gender, ethnicity and the type of business:

- Regarding age, the designers ranged from their late 20s to 40s: Four designers were in their 40s, seven designers in their 30s, and four designers in their 20s.
- Among the interviewed 15 designers, seven of them were male.
- In terms of the type of businesses, seven designers focused on retail business while eight designers had wholesale businesses. Among them, only two designers conducted manufacturing activities.
- Only one designer had a medium sized business and four designers had small businesses, while the remainder (10 designers) ran micro-small businesses.

Please note that pseudonyms are given to the interviewed designers and referred by them in this research in order to protect their anonymity. For the details of interview samples, please see Table two in Section Four.

3. Boutique Fashion SMEs & Australian SMEs' Use of ICTs

The Boutique Fashion Industry comprises of large number of small businesses, particularly those that are micro-small. Micro-small businesses refer to those employing less than four people (ABS, 2002). This implies that understanding the Australian SMEs' use of ICTs is pertinent for this study. Australian SMEs have been slow to adopt the technology. The micro-small businesses have been particularly slow to adopt the PC and the Internet technologies as indicated in Government surveys (ABS 2003; 2002; 2000). During the last three years, the adoption of the PC by the micro-small businesses in Australia has increased only 10 per cent from 69 per cent in 1999 to 79 per cent in 2002 (ABS 2002). In terms of Internet use, about 64 per cent of micro-small businesses had access to the Web and only 14 per cent had homepages, whereas the relevant figures for small businesses were 92 per cent and 56 per cent respectively and for large businesses were 99 per cent and 81 per cent respectively.

Many studies have dealt with the factors influencing the adoption of ICTs by Australian businesses. The high cost associated with the initial set-up and a lack of a skilled work force were often cited as barriers to adoption of ICTs (Yellow Pages Business Index 2001a; 20001b & 2000c; NOIE 2000a; 2000c). In terms of e-commerce adoption, many studies have identified barriers to SMEs. They include management issues (Cragg & Zinatelli 1995), a lack of training opportunities and demonstrated benefits (Poon & Swatman 1997; Poon, Swatman & Vitale 1996; Parker & Swatman 1996), and the re-engineering of core business processes (Fife & Pereira 2002). A somewhat different view was presented in another Australian survey (Australian Bureau of Statistics 2001) on the adoption of the PC, Web access and homepages by the SMEs. According to the survey, SMEs have not adopted those technologies because they are not suitable for the nature of their businesses. Among the businesses with Web access, e-mail was the most popular online activity regardless of business size (ABS 2003). This is then followed by information searches in order of popularity. According to the ABS survey, online banking was also viewed as being popular by both large businesses and SMEs. It reported that 65 per cent of micro-small businesses and 79 per cent of large businesses conduct this activity (ibid.).

To date the publicly available data for the Clothing Industry's use of the Web seems very limited, and the limited data suggests a low usage. While some reports identified the number of clothing purchases online (ABS 2000; PriceWaterhouse Coopers 2000; 2001; Taylor Nelson Sofre 2000; 2001), some information proved to be unattainable such as the number of SME clothing businesses with Web access and/or homepages. A study by CIRCIT (1999) describes that even obtaining the data that indicates the use of ICTs within the Clothing Industry, including a number of homepages by the Industry, have proved unattainable. The only indication found from the existing literature is that only a small number of the TCFL businesses were identifiable as having a homepage on the Web and to operate electronic commerce, showing only 11 TCFL related web sites in 1998 (Street & Aeuckens 1998). The recent case studies of small businesses adopting e-commerce by NOIE (2002b) include a small number of textile and clothing businesses.

4. Three Groups of Boutique Fashion SMEs and their Use of ICTs

This section presents the use of ICTs by the interviewed designers based on the three emerging groups. The level of technology adoption varied amongst the interviewed designers. Of those 15 designers interviewed, 13 had a PC and access to the Web, and six designers had homepages. Table 2 presents the designers' use of technologies both for the total number of interviewed designers' businesses and the interviewed micro-small businesses. Only one designer used a digital camera and PhotoShop for his design work. Only one other designer indicated regular use of a PC for business communication and

management. This was because, via e-mail, she could communicate with her business partners even when she was working at her second job (See Table 1). This picture of boutique fashion SMEs and their use of ICTs is then placed within the broader context of the industry's use of ICTs.

Table 1. Use of Technologies by the Interviewed Designers

Use of Technologies	Out of the 15 Designers	
	No. of businesses	No. of micro-small businesses
Telephone	15	10
Fax	13	8
Web access	13	8
E-mail	Access	8
	Use once a week or more	3
PC	13	8
Accounting software	8	3
Digital Camera/Photoshop	1	1
CAD*	1	1
Homepage	6	4
POS, EDI, Bar Codes or CAM**	3	None

Note:*CAD (Computer-Aided-Design) **POS (point-of-sale system), EDI (Electronic Data Interchange) CAM (Computer-Aided-Manufacturing) system

Of the 15 designers interviewed for this study, nine indicated the significance they place on artistic values in their design work. At the same time, they displayed a reluctance to use technologies for both designing clothes and managing businesses. An analysis of the collected data and the designers' descriptions and expressions of their businesses found two very distinctive approaches in their business philosophy: Artisan designers and Business designers (See Figure 1).

Figure 1. Characteristics of Designers with Two Approaches

Artisan Approach		Business Approach	
Creativity Authorship	Design philosophy	Popularity commercial success	Efficiency
Craftsmanship (skills & manual production)		Production Tools	
High quality (expensive)		Materials	
Word of mouth, limited retail outlet (rarity)		Sales and promotion	
Small quantity		Stock volume	
Up market		Target market	
		Controlled mass production	
		Controlled mass market	

A group of designers interviewed referred to themselves as artists, rather than business owners. They believed their work to be an artistic process and their final products –designed garments – were the result of their artistic endeavour. In terms of creativity, the designers with the Artisan approach are proud to be seen as craftspeople who have the skills and techniques necessary to produce high quality artistic products. They emphasised the ‘hand-made’ (manual) process in their garment production such as hand knitted fabric pieces, hand printed fabric and hand-beaded skirts. Some designers with particular emphasis on their artistic approach to their work tend to view themselves as artists and some of them are reluctant to be seen as a business owner who pursues business profitability. The designers with such a view also showed a degree of reluctance in utilising or replacing certain technologies with traditional techniques for clothing design and production. This was particularly the case with the technologies supporting design and sales activities such as computer drawing programs and online sales. Along with this group of designers, there exists another group of designers named the ‘Business designers’ who specifically emphasised the importance of business growth. The designers with the Business approach frequently commented on their business productivity, efficiency and business decision making that relate to cost savings and effective management. Some designers with an Artisan approach mentioned the importance of an innovative design that does not always seek popularity from the public. By contrast, they prefer to achieve recognition from the Industry experts.

The analysis of the different philosophical approaches to managing a business amongst the designers was to some extent prevalent amongst all interviewed designers. While the use of communication technologies across the two groups of designers was similar, the differences were seen from their use of technologies for business management, design retail and online sales. The designers with the Artisan approach appeared to be slower in their adoption of technologies for business management, design and sales compared with that of their counterparts in the Business designers’ group. In addition, a number of designers from both Artisan and business groups showed some differences in their technology adoption from the rest of designers with the same philosophical approaches. These designers showing differences in technology adoption were named as ‘Artisan/Business designers.’ Consequently, the interviewed designers were classified into three groups: Artisan designers, Art/Business designers, and Business designers.

In the Art/Business designers’ group, five designers had the same philosophical approach as the Artisan designers in their business management. These designers were Marge-a female designer with a micro-small wholesale business, Veronica – a textile and fashion designer running a small business, Frank – a retailer in his 40s, Rhonda – a retail focused micro-small business owner, and Georgina – a designer in her late 20s with wholesale micro-small business. Three designers in the Art/Business designers’ group had the same philosophical approach with the Business designers in their business management and they were: Liz – a micro-small Boutique Business wholesaler in her 30s, Brad-a male Boutique Fashion designer running a micro-small wholesale business, and Sue – a designer in her 30s running a textile micro-small wholesale businesses that has just begun to produce clothes.

In terms of technology use by the Art/Business designers, Marge, Veronica, Frank, Rhonda and Georgina from the Artisan designer group seem to have no more than basic information and communication technologies. Whilst Cinnamon, Daisy, Andrew and Gavin did not have homepages, Marge, Veronica, Rhonda and Georgina did. The technology use by the distinctive Artisan designers — Cinnamon, Daisy, Andrew and Gavin — was limited to PC's, Fax and E-mail. Similarly, Brad, Liz and Sue, showed a lower level of technology adoption compared to the rest of the designers in the Business Group. Matt, Sam and Aaron were the only Business designers adopted EDI, POS and Bar codes (See Figure 2).

Figure 2. Three Groups of Designers and Their Technology Use

	Artisan Designers		Intermediate Group Art/Business Designers		Business Designers
Designers	Cinnamon Daisy	Andrew Gavin	Marge, Veronica Frank, Rhonda Georgina	Brad, Liz, Sue	Matt, Sam, Aaron
Communication Technologies	Phone	Phone Fax E-mail	Phone Fax E-mail	Phone Fax E-mail	Phone Fax E-mail
Business management Technologies		PC	PC, Accounting software (excl. Rhonda)	PC Accounting software (only Liz)	PC Accounting software
Design and Retail Technologies			Homepage (excl. Frank)	Homepages (excl. Sue & Brad) CAD (only Sue)	Homepages (excl. Aaron) EDI, POS, Barcode

5. Designer's Philosophical Approach & their Adoption of ICT

In the previous section, we have seen the slow adoption of technologies for business management, design and sales from the Artisan designers. The Artisan designers' understanding and belief about what is art, artistic and aesthetic may have a compelling influence on their attitude towards not only garment design but also the way they run their businesses. Understanding this also helps to investigate why Artisan favour manual production and what makes them feel content with their non-use of technologies in the midst of the social trend of using advanced technologies.

Based on Benthall's (1972) study of art, science and technology, the meaning of art and artists can be defined with two associations: a technical skill or mastery of a medium, and the socially established perception of 'artists or 'artistic behaviour.' In his definition, Benthall claims that the notion of 'being an artist' implies that one has the skill —referred to as 'technical skills'— necessary for producing reputable art work. This relates to the importance of craftsmanship and manual production and the designers' use of technology. Francastel (2000) explores how the arts or artists producing with an aid of technology are perceived. In his investigation into the relationship between technology use and expression of architectural aesthetics, Francastel re-examines the meaning of mechanization and technology use, and introduces the importance of industry/peer artist acknowledgement amongst artists. This is because the Industry acknowledgement represents the acknowledgement of the skills involved in understanding and producing particular styles. Francastel's claim is useful in understanding the attitudes of some Boutique Fashion designers towards the significance of having industry acknowledgment including the role of fashion shows/parades.

Another interesting perception towards artists is an allowance for their differences from the rest of people in society, which is useful in understanding why some artists are reluctant to use technologies regardless of social trends. Wolff's study (1993) explores this perception towards the artists and suggests that the artist's isolation in a capitalist society makes an artist different from the rest of us. She argues that the concept of the artist/author as some kind of a social being, blessed with genius, waiting for divine inspiration and exempt from all ordinary rules of social intercourse is historical and a limited one. This romantic notion had two contributing factors (ibid.). The characteristics presented by Francastel and Wolff help understand why the designers with the Artisan approach prefer manual production and seek Industry recognition sometimes more than following the trend of adopting ICTs for competitiveness. It is also Wolff's claim that society's understanding of an artist as being different from other people in society allows the designers with the Artisan approach to feel less anxious about lagging behind the adoption of popular technologies such as homepages and e-commerce. Consequently, the designers with the Artisan approach feel they have an allowance as artists to chase priorities such as artistic expression, acknowledgement by the Industry experts and self-fulfilment instead of obtaining means of improving their competitiveness.

It is also important to look at the tension between art and technology. Most literature dealing with the aspects of technology use in the areas relevant to this study appears to have two distinctive philosophical foundations. One is a group of literature either advocating or explaining what technology can do or has done. For instance, the authors produced studies that fit into the former group of literature include Hazel King (2000) who introduces the use of technology in the Textile Industry in '*Fashion: Trends in Textile Technology*' and Jonathan Benthall (1972) who introduces how technologies contributed to the development of artistic world in '*Science and Technology in Art Today with 95 Illustrations.*' Additional to this group are Partick Taylor (1990), R. W. Chase (1997) Kathleen Colussy (2000) Michael Dicks (1996) and W. Aldrich (1994) whose publications primarily illustrate the benefits of computer aided design systems for the Clothing and Textile Industries. The other group of literature discusses social and philosophical values of the arts and the artists' use of technologies. This group of literature discusses the value of the art and artistic outcomes. For example, Walter Benjamin (1936) claims in his article '*The Work of Art in the Age of Mechanical Reproduction*' that use of technologies for producing art work decreases the value or authenticity of its artistic value. Other authors such as Janet Wolff (1993), and Virginia Postrel (1999) discuss the use of technology in the art field and its impact on creativity and aesthetics. Stephen Hill (1998) and Pierre Francastel (2000) present their pessimistic views that technology devalues the social and artistic outcomes compared with those produced without the use of technology.

Designers' understanding and perception towards technology as a machine is also relevant to their use of it. The understanding towards what is a machine does not always incorporate the meaning of technology or even techniques. There is a perception of

what is meant by technology. Initially established by economists, technology is often misunderstood as a machine (Macdonald et al. 1983). This is due to the fact that -the- use of technology can be seen to be efficient, leading to its close association with a machine. The use of technology — that is a machine in the designers' view — becomes a tool challenging and even depriving them of their power of controlling and directing their garment design and products. A prevailing view amongst the Artisan designers in particular is that the use of technology diminishes the value of the input — creative input and expert skills — to their products. In other words, the use of a machine in production means that the machine is entirely responsible for the production independent from the creativity of a person. This association makes the person operating the machine invisible and even disregards the person's creative input. In other words, production by a machine can be seen as a process independent of a human being and is seen solely as the work of a machine. This potentially threatens the designers and their creative endeavours. Initially produced in the mid 1930s, Benjamin Walter in his essay entitled '*The Work of Art in the Age of Mechanical Reproduction*' (1936) presents a frame of mind in the artist's view on technology use. The essence of his claim is that the value of artwork —the 'aura' —is undervalued when produced through a mechanical reduction process. In short, the act of utilising a machine that has reproducibility threatens authenticity of the artwork and frees up the artwork from ritual. It challenges the function of art and places it on a practical level. In summary, the designers' understanding and belief about what is art, artistic and aesthetic can have a compelling influence on their adoption of technologies, particularly when they have strong artistic approach to managing their business.

6. Conclusion

In this paper, I presented the findings of the information and communication technology use by the Boutique Fashion designers who run SMEs in Melbourne. I established the two main patterns of designers' philosophical approaches to their use of technologies — the artisan approach and the business approach. Amongst the two groups of designers, another group of designers with a hybrid approach was identified, which was named the intermediate group of designers. Under this framework, the adoption of technology amongst the interviewed designers was seen as a result of a complex and multifaceted approach. It is also -found- that the designers' perception towards their own identity and philosophy is one of the important factors that- needs further attention in the context of their use of technology and managing a business. This was further explored through a review of literature dealing with the sensitivity between the technology and the art. I found that- there are two distinctive philosophical foundations in the literature of technology use and art: (one) advocating or exploring what technology can do or has done to the field of the art, or (two) denouncing the value of the art and artistic outcomes from the use of technologies. It was also determined that technology can be seen as-a threat to the people in the art field particularly when the technology is seen as a machine.

The adoption of information and communication technologies (ICTs) by the Clothing Industry, particularly the Boutique Fashion Industry, stands at an important crossroad. It is important to take the conclusions of this study further. More extensive explorations of the 'Artisan vs Business' framework in the Fashion Industry would be useful. Do these philosophical differences pervade other business issues within the Industry? A longitudinal study would be important for discovering whether the conflict between Art and Technology gets rearmend in interesting and different ways. The examination of this conflict is critical in businesses where creativity and artistry are central.

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Bio

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