Chapter 14
Fashion–Technology and Change in Product Development and Consumption for the High–End Menswear Sector: A Study Utilizing a 3D–4C’s Process Model

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ABSTRACT
This updates a longitudinal study of Bespoke/High End tailoring (Ross, 2007) with a secondary focus on mid-market menswear. The discussion commences with a review of key literature and practices from digital menswear studies to-date and evaluates how in the last two decades a deeply entrenched traditional sector such as tailoring has embraced numerous fashion digital-technologies from the design process to multi-channel consumption in-store, e-commerce and apps. The author utilizes a 3D-4C’s process model as a structural template. The research methodology is interpretive, qualitative, online structured-observation of tailors currently utilizing digital practices plus in-depth interviews with industry experts. Those interviewed include Bespoke/Designer tailors with current 3D- platforms and International researchers providing insight into the latest developments in digital fashion including virtual design, scanning, sizing, avatars, 3D-fabric-simulations, 3D-printing, virtual-try-on and customization to establish best practices and future forecasts for proactive fashion management.

INTRODUCTION
Until the 1990’s design and manufacturing processes in menswear bespoke and high end sectors of the fashion industry had hardly changed since the 19th century, despite the availability of new digital technology and changing consumer attitudes to the old tailor-client relationship. This is partially because tailoring, as we perceive the term, has a heritage that dates back to the thirteenth century when the first
coats were made and considered fashionable. According to Almond (2011) at that period coats were made by skilled laborers sewing the cut cloth by hand. The laborer became known by the name Tailor from the French Tailleur which means to cut. The term Bespoke comes from the description of the tailor and customer bespoking the exact specification of the cloth, style and fit. From the early 19\textsuperscript{th} century mass-manufacturing of menswear suiting became the norm for all but the very rich, or men with sartorial style whose preference was for the art of bespoke created by the master tailor. A recent study by Ross (2012a) identified a new Semi-Bespoke descriptor which utilizes both the hand crafts of the traditional tailor combined with digital technology to accommodate the contemporary male consumer who values luxury and craft but wants a more accessible, cost-effective and faster suit. This is because a typical bespoke suit from Savile Row London can take up to forty hours to produce and 3-4 customer fittings. In between the bespoke and mass-manufacturing sits Mass Customization which has been well documented by many key writers (Gilmore & Pine, 2000; Westbrook & Williamson, 1993) since Toffler (1980) first predicted the paradigm shift from mass manufacturing to mass customization when customers demand for more choice and a better fit would be personalized in apparel (Davis, 1987; Pine, 1993).

Advances in digital technology allow reductions in the intensity of labor, cost and the need for customers to attend time-scarcity fittings in person while keeping the quality and service. Studies show that the technology is now providing a younger generation of male consumers with more opportunity to choose a well-fitting semi-bespoke suit. (Ross, 2007; Bougourd & Delamore, 2007) As many consumers are now better educated, discerning and more demanding in choice of style, quality, service and price value this is a fast growing niche market that needs to be addressed for the future. However, this market also requires the willingness to accept new technological processes and methods by both the tailor and the customer in what is recognized as a conservative sector. The perceived ‘usefulness’ and ‘ease of use,’ ‘acceptance of technology’ was first considered worthy of study by Davis (1987) when he developed a valid measurement scales system for predicting user acceptance of computers. Since then this generic model has been adapted and reused regularly by many academics and practitioners to evaluate the open-mindedness of innovation by consumers and the fashion industry and is considered relevant to this study.

Research has identified a number of social-cultural, technological and economic factors arising globally in the past two decades of the 20-21\textsuperscript{st} century as indicators of a paradigm shift driving those who have relied on the traditionally entrenched practices of the menswear industry and their consumers to reconsider their conservative and conventional practices and modes of consumption. Around the same time as the first published study on change in the bespoke menswear market Mark Tungate (2008) described in his book The Branded Male the untapped potential of men’s internet shopping sites, citing in particular Net-a-porter luxury brands for women as a potential model. On the 22\textsuperscript{nd} February 2011 Mr Porter the male equivalent was launched and has been followed by many other successful menswear shopping sites as well as a number of innovative Semi-bespoke e-tailors trekking the same profitable path and resulting in more male customers having the confidence to use bespoke services on the internet.

New digital technology has made great advances in design and manufacturing within the middle to high end menswear market as well as mass manufacturing through the availability and more common use of methods such as digital printing, 3D pattern-cutting, 3D tailoring, co-creation via web 3.0; styling; fabric simulation; body-scanning and semi-bespoke manufacturing processes. One of the main leaps forward that enables both the tailor and the customer to visualize the apparel on himself without actually trying on or even being in a retail environment is known as ‘Virtual-try-on’ which simulates the behavior of textiles on the human digitized body. Cloth/textile items can be seen to behave (drape