# INVESTMENT PIECE: CO-DESIGN STRATEGIES TO SUPPORT THE EMERGING DESIGNER SECTOR OF THE NEW ZEALAND FASHION INDUSTRY

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#### **ABSTRACT**

Over the past 20 years, fashion education has transitioned from skill-based instruction offered by technical institutions to an increasing number of design-led degree programmes offered by universities. While universities are delivering acclaimed talent in this area, graduates in many parts of the world face career uncertainty.

In New Zealand, the recent shift towards globalised supply-chain manufacturing has had a significant impact on the local clothing industry, with a two-fold effect on fashion graduates. Not only are there fewer employment opportunities, but there is also a diminishing number of industry training grounds – historically, a fundamental source of 'real world' training for emerging designers prior to the launch of their own businesses. This scenario highlights a need for the development of strategies to support fashion design graduates wishing to continue working in a creative capacity in their chosen field.

This paper presents an ongoing research project that utilises a participatory action research methodology, engaging stakeholders in the co-design of strategies to address this need. Underpinned by a human-centred design thinking approach, the project brings industry veterans and emerging designers together in the trial and evaluation of a series of prototype workshops developed in response to recent shifts – notably the change in tertiary education focus, an absence of government-funded initiatives and a decrease in the availability of traditional industry training grounds.

Environmental and social sustainability concerns are likely to disrupt current fashion consumption patterns, and a return to some level of local production may play a part in this scenario. For this to succeed, existing knowledge must be preserved. The project aims to provide a viable, economically independent model that supports knowledge transfer, skill development and the generation of meaningful work for both industry veterans and emerging players in the local independent designer fashion sector.

## INTRODUCTION

New Zealand has not been immune to job losses in the apparel industry that have occurred throughout the developed world as a direct consequence of economic deregulation. Increased importation of low-cost fast fashion has significant impact, both in terms of career prospects for fashion graduates and the marginalisation of existing garment workers. Stakeholders representing both of these groups are the focus of this paper, which discusses an ongoing participatory action research project, involving end-users in the co-design of strategies to improve employment opportunities within the sector. Underpinned by a human-centred design thinking approach, the

project brings industry veterans and emerging designers together in the trial and evaluation of a series of prototype workshops developed in response to recent shifts – notably a change in tertiary education focus, an absence of government-funded initiatives and a decrease in the availability of traditional industry training grounds.

Future disruption to current apparel consumption patterns is likely to rely on the provision of alternative fashion product, designed to respond to current environmental and social sustainability concerns. A return to some level of local production may play a part in this scenario. For this to succeed, existing knowledge within local communities must be preserved. The project aims to provide a viable, economically independent model that supports knowledge transfer, skill development and the generation of meaningful work for both industry specialists and emerging players in the local independent designer fashion community.

## GLOBALISED FASHION: PRODUCTS AND PEOPLE

Prior to the large-scale economic deregulation of the late twentieth century, the dominant model of New Zealand fashion production was one in which local manufacturing thrived, protected by tariffs on imported products.<sup>3</sup> In 1987 the tariffs levied on imported clothing were set at two separate rates: 65% and 40% (specific to the particular clothing type). Successive tariff reductions saw an influx of internationally branded garments, with clothing imports increasing from NZ\$129 million in 1985 to NZ\$480 million in 1996.<sup>4</sup> This trajectory continued, with some local manufacturers also moving production offshore, and between 1989 and 2012 a six-fold increase in the volume of clothing and footwear imported into New Zealand was met with a corresponding decline in local fashion manufacturing, with employment in the sector falling 60% between 2000 and 2011.<sup>5</sup>

Prospects for garment workers in developing nations are also a source of concern. Low wages and sub-standard and often highly dangerous labour conditions<sup>6</sup> remain evident as the dual pressures of the global economic downturn and trade globalisation continue to converge, intensifying competition for the consumer dollar.<sup>7</sup> While mass-production remains the domain of the developing world, manufacturing jobs in the developed world are increasingly being replaced with "hobby jobs," with adults employed in the lower-skilled service and retail sectors traditionally occupied by youth workers. Although to the uninitiated, the manufacturing sector may not appear particularly appealing to young job-seekers, the argument is made that the potential for creativity, skill acquisition and specialisation within the fashion industry provides rewarding opportunities.

Such opportunities can only be realised if there is demand for locally produced fashion. Apparel spending in New Zealand has increased marginally since deregulation, but certain staple fashion items have become significantly cheaper.<sup>10</sup> As in other parts of the developed world, much of this fast fashion is discarded into landfill.<sup>11</sup> But just as consumers have embraced locally produced food in recent years, a corresponding shift has begun to take place in the clothing sector, with an increased availability of value-added garments that embrace traceable localised production, and where workmanship and quality are paramount.<sup>12</sup>

## REMODELLING THE RAG TRADE

Fashion education in New Zealand has also undergone a shift in recent years, with a transition from skill-based instruction, as offered by technical institutes, to design-led university degrees.<sup>13</sup> While academic environments are successful in nurturing excellence in design talent,<sup>14</sup> the university setting poses a challenge to the provision of 'real world' learning. At AUT University, fashion projects conducted in collaboration with industry partners place emphasis on the development of design work to international standards. Certain limitations prevail, however, and it is rare for students to gain sufficient experience in the more procedural aspects of the industry. This focus on design has given rise to criticism by industry advocates that current graduates lack the practical skills required by the sector.<sup>15</sup>

Such disapproval is not new – in the 1980s many industry players were critical of technical qualifications, calling for a return to factory floor tuition. However, this continuing criticism fails to address such considerations as the aspirations of fashion students to achieve advanced qualifications, commensurate with those being gained by their peers in other disciplines. More importantly, it fails to recognise the nurturing of design talent and critical thinking skills that occurs within the university setting. These are, arguably, the precise attributes needed by emerging designers entering a space of diminishing job opportunities in an industry faced with inevitable change.

Historically, fashion graduates seeking to work in a creative capacity within the industry would develop this expertise by working alongside industry specialists in established firms. Employment within these organisations allowed graduates to reach industry-competency levels prior to the launch of their own ventures. The knowledge gained not only boosted capabilities within these new enterprises, but also ensured that new players were well placed to impart knowledge to future generations. Changes in the nature of tertiary fashion education (with less focus on applied skills), together with diminishing opportunities within traditional workplaces (for both employment and supplementary training), highlight a critical, unmet need — providing opportunities for the development of alternative scenarios for skill development and knowledge transfer.

# PROJECT INCEPTION AND FRAMEWORKS

Initial engagement with a variety of fashion practitioners – academics, industry veterans and emerging designers – led to the concept of developing a new framework for the dissemination of fashion industry knowledge. The project's goals were to support the viability of fledgling fashion businesses through a model that was, in itself, viable. Analysis of existing support networks available to this user group determined that current offerings failed to comprehensively address end-user needs. Engagement with export-focused design institutes was deemed to be cost-prohibitive; general business mentoring services were unable to provide fashion-specific advice; and all externally funded incubators in the country had ceased to operate. Given the current financial climate, incubators are unlikely to be re-launched in the foreseeable future, and formal fashion industry networks, faced with declining membership from a weakened industry, are also facing closure.

Demands for meaningful work, considered against the backdrop of increasingly globalised production, placed this project within the arena of "wicked problems"  $^{16}$  — a term used to reflect the difficulty of addressing such issues, given their complexity and, indeed, the likelihood that they will remain insoluable. The complexity of the fashion employment issue indicated that an optimistic approach would benefit the enquiry, and design thinking, an internationally recognised innovation model, was identified as a useful framework for this undertaking. The design thinking approach circumvents typical convergent thinking processes (in which a solution is chosen from a range of possible options), and encourages divergent thinking — using techniques such as empathy, brainstorming, rapid-prototyping and the suspension of devil's advocate cynicism — as a means of exploring unconventional possibilities. It also focuses on the notion of human-centered design, which places end-user needs foremost in the design and problem-solving process.

A desire to address end-user needs in an authentic setting meant that the project also lent itself to a participatory action research methodology. Action research seeks to find resolutions to real world problems and is typified by engagement with stakeholders in the location of the issues to be addressed. <sup>18</sup> An iterative process of action, observation, reflection and revision is undertaken, with successive research cycles seeking to build on the knowledge gained. The method is characterised by its democratic nature, with stakeholder participants involved in both defining specific problems, at the outset, and in the co-design of research activities throughout the investigation process. <sup>19</sup>This stakeholder focus placed the investigation within the domains of social innovation, which promotes the involvement of community participants in the search for new solutions for issues affecting them; <sup>20</sup> and social entrepreneurship, which utilises market-based skills, but places stakeholder value before shareholder profit. <sup>21</sup>

#### PARTICIPATION AND CO-DESIGN

Initial research undertaken with industry specialists corroborated our concerns about an impending knowledge gap. An interview conducted with the owner of a local independent fashion-production company highlighted a disconnect between the industry-standard requirements of the production manager and the expectations of emerging designers. Discrepancies between sample garments and the correlating patterns appeared to be an ongoing source of tension between the parties. Researcher experience suggested that essential pre-production assessments were not being undertaken. The production service did not purport to offer this, and it became evident that the designers lacked awareness of systems and checks required in this phase.

Following a user-centric approach, <sup>23</sup> stakeholder feedback was sought from a small group of emergent designers as to the difficulties they faced in the foundation years of their businesses. A questionnaire was provided to examine four key areas of their businesses – viability, desirability, feasibility, and also their core business offering. As expected in a highly competitive industry, profitability was a key concern. However, the results indicated that while all of the designers had confidence in their core product, two had concerns about the feasibility aspect of their businesses. These participants clearly identified a lack of access to industry specialists, and discussed their unfamiliarity with time-proven industry systems. In contrast, the third designer, who expressed confidence in this area, had launched her business after several years of designing in a workroom setting alongside industry veterans.<sup>24</sup>

Brainstorming activities were then used to explore possible solutions to the knowledge gap currently being faced by this community. Particular consideration was given to the tension between the budget constraints of prospective end users and the probability that eventual offerings would need to exist within market contexts. Delivery within a group setting to divide the cost of engagement was suggested, leading to the concept of facilitated workshops that would bring emerging players together with industry veterans.



Figure 1. Tabulated results of the designer questionnaire.

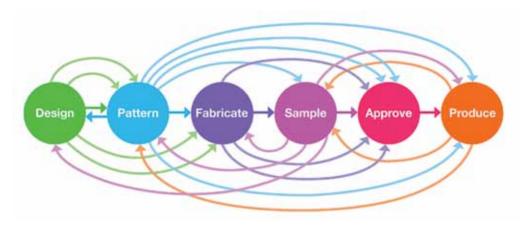


Figure 2. Diagram illustrating a six-stage fashion product development process.

Given the findings from the questionnaire, it was decided that the initial workshop would focus on fashion industry pre-production processes, or the procedural requirements for taking a given design into bulk production. Considerations in this area include correct and cost-effective manufacturing techniques; fabrication, colour and sizing variances; fabric testing; trim sourcing and availability; and pattern approval processes. Systematic errors made in any of these areas can potentially mean that investment in design development and bulk fabrics is not realised as profit, if faulty fashion product cannot be sold at optimum price. Given the competition that emerging designers face from low-cost imported product, such losses have significant consequences for the profitability and, indeed, financial survival of these vulnerable start-up enterprises.

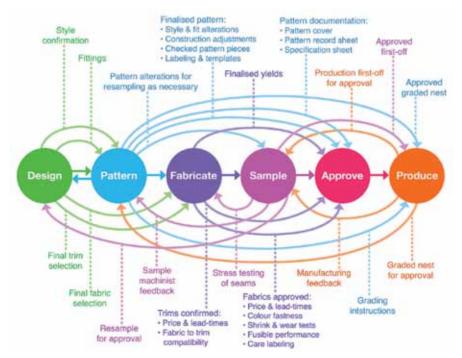


Figure 3. Fashion pre-production approval process showing details of specific roles, relationships and tasks.

In response to stakeholder concerns, the researcher mapped a classic six-stage garment development process to illustrate the interactions required during the pre-production phase. The diagram was initially devised to identify the key stages and key actors involved in the process. During the mapping of the stages, the complexities of the relationships between the actors became apparent, indicating a need for further decoding of the processes.

Figure 3 identifies specific tasks in the process. These have been colour-coded to link the task to a specific stage; for example, the shrink-testing of textiles is coded as pertaining to the *Fabricate* stage. It should be noted that although the six stages — *Design, Pattern, Fabricate, Sample, Approve* and *Produce* — indicate areas of specialisation, many of these, such as *Design* and *Pattern*, may overlap and in some cases, particularly within small businesses, be the responsibility of a single individual. The named stages are shown in a chronological progression; however, the task links (as indicated by the curved arrows) are multi-directional, with certain tasks revisiting a previous stage. For example, information gathered during the sewing of a garment (in the *Sample* phase) may highlight the need for pattern adjustments — information that would then need to be passed back to key stakeholders in the *Pattern* stage.

Complex flowcharts have been used to map product development processes in various manufacturing scenarios, such as engineering, for decades.<sup>25</sup> However, apart from examples relating to supply-chain manufacturing.<sup>26</sup> researcher experience suggests that such mapping of fashion development processes is rarely used, or taught, within the apparel sector, and I believe that dissemination of this information would be of significant benefit within the fashion-manufacturing arena, particularly to emerging players. The flowchart diagrams developed through this research are not intended to be all-encompassing, nor do they seek to indicate a required arrangement of relationships and responsibilities – rather they seek to identify the types of concerns relevant to fashion production processes, upon which an individual enterprise could build a system tailored to their business.

#### WORKSHOP #1

The initial workshop was conducted in the design studio of one of the participating designers. Participants included a group of emerging designers; a sample machinist with over 40 years of industry experience; and two academics, each industry veterans in their own right. Brainstorming was again used to draw out participant concerns and to encourage optimistic exchange about future scenarios.

Concerns around financial constraints prompted a discussion about avoidable costs, such as those incurred through unexpected problems arising during production. The host designer was able to provide sample garments and patterns used in a production run that had been fraught with difficulties. Interaction between the facilitator and the sample machinist highlighted the crucial role of industry specialists in identifying likely issues, and the role of preproduction checks in circumventing such problems was explained. Participants were provided with documentation that included the production flowchart and various systems used to capture information for implementation during the production process.

The use of real-world examples lent a sense of authenticity and relevance to workshop activities. Participants were also given hypothetical problems to solve, and engaged with industry specialists to prototype workable solutions. This highlighted the benefits of workplace collaboration, particularly with industry expertise at this advanced level.

# WORKSHOP #2

Profitability was also a key concern for emerging designer participants. Although generic business courses are widely available, fashion manufacturing faces particular issues that impact on financial planning and cash-flow – such as continually changing product lines and materials; competition with supply-chain manufacturing; and the need for meeting strict, season-based delivery schedules. A second local designer took part in the subsequent workshop, sharing her financial planning strategies and monthly timeline with participants. Of particular note was

her revelation that although her business had experienced rapid success and growth within the first eight years, she had resisted offers to use global supply-chain manufacturing, citing working conditions as the deciding factor.<sup>27</sup> Workshop participants had the opportunity to question the designer about her decisions, and gained insights into strategies for improving start-up fashion business viability.

Ongoing discussions throughout both of the workshop sessions signaled a departure from traditional training and instruction methods. This contributed to a sense of shared voice and served to highlight the collaborative and participatory nature of the workshops.

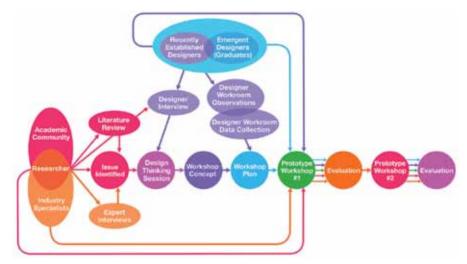


Figure 4. Flowchart depicting co-design processes and stakeholder involvement in the development of workshop trials.

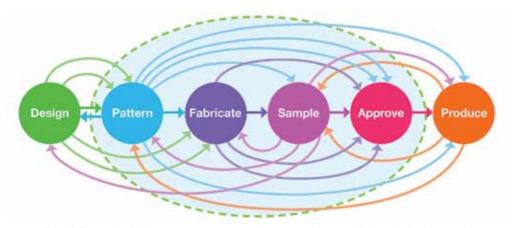


Figure 5. Diagram highlighting the pre-production area (between the design and final production of garments) identified in this study as requiring increased levels of understanding.

#### DISCUSSION

Critical to the evaluation of the prototype workshops was participant feedback, which served to determine themes and modifications for future trials. At the end of each session, participants were asked to share their reflections on the day's activities — those aspects that they had found beneficial, elements that could be improved, and whether the workshop framework was the optimal platform for dissemination of industry knowledge. Participants were unanimous in their approval of the format, confirming that workshop delivery was preferred over alternatives such as an industry handbook or online delivery. A motivating factor for participant subscription to the workshop model was the sense of isolation that many had felt during the foundation phase of their businesses. Gaining 'insider knowledge' of the imperatives associated with pre-production procedures was cited by the host designer as being one of the most useful aspects of the first session. She anticipated implementing protocols to improve operations, and expected that the knowledge she had gained would enhance company culture.

Further positive outcomes were noted as a result of the initial trial. Two of the participants offered their own workrooms as venues for future workshops, and networking opportunities proved beneficial – three designers were keen to employ the services of the sample machinist, and newer graduates were eager to continue contact with the more established designers. During the initial scoping study, the initial group of designers had stated that any sharing of knowledge on their part would be circumspect, subject to any perceived adverse impact on their own businesses. However, during that session, and again during the workshop trials, several instances of spontaneous collaboration and information-sharing between the parties were witnessed, signaling a willingness to support a collective sense of empowerment.

The use of industry-based participants lent credibility to workshop activities. In New Zealand, the declining apparel industry means that there is a surplus of industry specialists, many of who are semi-retired and likely to be open to part-time work opportunities. Considerations around commercial viability required that the workshop model address the cost of engagement with these experts and with other professionals involved in the sessions (such as established designers and fashion educators). Design thinking optimism prompted the consideration that these parties might command a professional hourly rate, volunteer their time for free, or indeed consider a remuneration arrangement somewhere between these two. Using workshops to divide the cost of engagement met with approval, with participants indicating that paying a nominal fee to attend workshops would not prove prohibitive, particularly if there were no ongoing financial obligations.

The workshop scenario offers individual clients (and the broader fashion community they exist within) well-defined benefits. Knowledge acquired would support both individual employability and the viability of new business ventures. Rewards for industry specialists might well be less tangible. While it is unlikely that permanent, full-time work opportunities would arise from the workshop scenario, the author believes that these actors, many of whom have experienced a sense of marginalisation through fashion industry redundancies, enjoy being engaged in creative work and experience satisfaction from mentoring and sharing knowledge. In this way, workshop involvement might well provide them with enhanced opportunities to receive esteem for their expertise. Together with a level of negotiated remuneration, such work opportunities could arguably contribute to a sense of eudaimonic well-being that enhances the quality of life for these actors.<sup>28</sup>

While the workshop scenario was initially developed to exist outside of an academic framework (and it is deemed imperative for authentic learning purposes that it remain so), it is acknowledged that there are benefits to retaining links with universities. For as long as New Zealand's apparel industry infrastructure remains in its current state, compromised by diminished investment and ongoing company closures, universities serve a vital purpose. As well as offering access to cutting-edge technologies, universities are able to provide research funding to support new initiatives and, most importantly, are able to act as a conduit between industry and emerging players.

Recent attempts to facilitate a third workshop highlighted one significant issue. While the facilitators were able to successfully secure established designers and industry specialists to take part, there was some difficulty in

communicating with emerging designers, particularly as to what needs they would like met in terms of a focus for the workshop. Significant time was involved in this recruitment and determination aspect, to the detriment of time available to develop workshop content. On reflection, the project would benefit from a third-party organisation acting as a conduit between emerging players and university facilitators. New Zealand no longer has an active fashion industry body, and the author believes that this situation needs to be addressed.

## CONCLUSION

The financial feasibility of local manufacturing (fashion or otherwise) in a globalised marketplace remains in question. In New Zealand, the declining apparel industry has impacted on a variety of players. Scores of graduates (and current students) are vying for fewer jobs; fashion educators are questioning their role in this scenario; and industry veterans are facing enforced retirement. Social innovation strategies such as the workshop scenario outlined in this paper could play a role in the provision of meaningful work for these actors.

It is anticipated that eventual workshop offerings would exist within market contexts. This is largely to ensure a level of financial independence, thereby removing reliance on governmental or benefactor support. However, it should be noted that this framework does not seek to satisfy the dominant profitability and growth criteria that has epitomised recent decades. In contrast to traditional notions of wealth-creation and market leadership, it seeks merely to be self-sufficient and to provide suitable recompense for the expertise offered by industry specialists. The success of social innovation initiatives such as this rests largely with the local communities involved – end-users keen to engage with offerings and facilitators motivated to foster this engagement. The model would also benefit from the development of a new, relevant industry body that could act as a conduit between facilitators and end-users.

A primary incentive for the wider adoption of the proposed model is the present-day risk of intergenerational fashion industry knowledge being lost to the New Zealand independent designer community. The retention and transfer of specialist knowledge and expertise is crucial to the survival of fledgling businesses within this sector. As a growing awareness of ecological and social sustainability impacts on consumption patterns, these actors may well be required to define future fashion scenarios. For their collective vision to be realised, investment in new frameworks for the dissemination of this knowledge remains critical.

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