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**UK Fashion Designers Working in Micro-sized Enterprises; Attitudes to Locational Resources, Their Peers and the Market** Rieple, A., Gander, J., Pisano, P. and Haberberg, A.

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UK fashion designers working in micro-sized enterprises; attitudes to locational resources, their peers, and the market

## **Abstract**

This paper contributes to an understanding of the importance of locally based resources and interactions in a globalised industry, fashion design. It examines the product design stage of the fashion production chain, rather than the manufacture and commercialization of apparel products. We studied the use of their geographies by UK-based fashion designers working in micro-sized enterprises (<10 employees) especially because of their likely sensitivity to various aspects of proximity, including their dependence on external resources to supplement their own.

Factor and cluster analysis identified four different types of designers, which differed in the manner in which they interacted with peers and markets, and accessed location-based resources. The paper advances explanations for the patterns of behavior observed in the various clusters and in making recommendations for further research predicts the types of design position each is likely to prefer.

## Keywords: fashion design; geographies; creative and cultural industries

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# Introduction

This paper reports on a study of fashion designers' in micro-sized enterprises' (MSEs) attitudes to peers, markets and localised sources of knowledge. The influence of geography and location on the behavior and performance of organizations has been of interest to students of economics, innovation and strategic management for many years (Breschi & Lissoni, 2001; DeCarolis & Deeds, 1999; Gertler, 1995, 2003; Martin & Sunley, 2003; Porter, 1998). In this paper, we extend this knowledge in three ways. Firstly, we examine behavior in a creative and cultural industry, fashion, in which key elements of knowledge are symbolic and cannot be kept secret. Secondly, we examine the use of resources that are not proprietary to individual firms. Thirdly, we focus upon the product design stage, rather than upon manufacturing and commercialization, which have tended to be the focus of past research in this industry.

We chose fashion design MSEs that employ less than ten people because of their particular need to be locally embedded (Grabher, 2002). What little is known about the strategic behavior of MSEs points to the importance to them of supplementing their limited resources with those outside the firm (Gilmore, Carson, & Grant, 2001) and observation of and interaction with user communities (Di Maria & Finotto, 2008). We show that, even in a world in which ideas are observable globally via the internet, location and proximal resources are important to at least a significant subset of fashion design firms, but that the importance attached to such resources and other features of the local geography, and the use made of them is, not homogeneous.

The paper proceeds as follows. In the following sections, we review the literature relating to fashion design and location, and draw attention to the environmental attributes likely to be important during the creation of new fashion designs. We then outline our methodology and the questions that we used in our survey. After our results are presented we discuss the findings and consider their significance for our understanding of the geographies of MSE fashion designers.

#### Literature review

Theorists writing about the cultural and creative industries have taken a particular interest in the place-based and clustering characteristics of creative production (Crewe and Baverstock, 1998; Gertler, 2003; Tokatli, 2011; Lazzeretti, Boix, & Capone, 2008; Maskell, 2007; Mommaas, 2004; Scott, 2004). These researchers found that cultural knowledge and practice is often place based, with certain urban districts providing an aesthetic context for the production of symbolic meaning represented in music, fashion, and art products (Currid, 2007; Drake, 2003; Hauge & Hracs, 2010). The spillacrosses of cultural knowledge from different sectors make creative milieu place-based, embedded within social practices that are spatially mediated (Grabher, 2002; Lange, 2011; Boschma, 2005; Gertler & Levitte, 2005). Regions and specific locations have their own identities (Molotch 2002) that reflect their unique combination of inputs and interactions. These creative 'clusters', located in major urban centers such as Milan, London, Paris and New York, contain dense agglomerations of companies accessing, and contributing to the development of, rich ecologies of knowledge, flexibly organised human resources and socio-spatial externalities of trust and belief (Banks, Lovatt, O'Connor, & Raffo, 2000). These localized hubs create products that are then mass reproduced and distributed globally (Bair & Gereffi, 2001; Bathelt & Turi, 2011). Though the majority of research on the geography of the fashion industry has been applied to the study of production, distribution and consumption (e.g. Evans and Smith, 2006; Tokatli, 2007), the argument that fashion designing takes place in clusters in order to benefit from operating in close

proximity to customers, competitors and to locally embedded social and cultural resources (Ashton, 2006; Lorenzen & Frederiksen, 2005; Lorenzen & Mudambi, 2012; Rantisi, 2004) has found some empirical support (e.g. Dwyer & Jackson, 2003; Rantisi, 2002).

Fashion clothing is a cultural good, involving creativity in its production, embodying some degree of intellectual property, and conveying symbolic meaning (Throsby, 2004). However there is also some element of functional utility in clothing. It is the union between this relatively objective set of qualities and apparel's status as text requiring interpretation (Crane & Bovone, 2006; Molotch, 2002), that has led some cultural industry commentators to describe apparel designing as a hybrid form of cultural industry (Hesmondhalgh, 2002). The fashion industry contains large elements of routine, standardised, efficiency-based processes necessary to reproduce, distribute and promote designers'

ideas to a global marketplace. The resources required to commercialise the work of the designer(s) do not need to be 'local' to the act of creativity that goes into the design, and therefore is not the aspect that we focus on in this paper. What we do examine is the impact of locally-based resources on the work of clothes' designers, focusing on questions such as the relative influence of different sources of trend knowledge, for example fellow designers or customers, or other cultural fields. Evidence is equivocal. Scholars such as Aage & Belussi (2008) and Wenting (2008) identified the networked nature of co-located fashion designers, although Boschma and ter Wal (2007) found that location near sources of information did not necessarily mean that firms engaged with these resources. Our own premise is that some categories of designers benefit greatly from proximity to certain sources of trend knowledge, whereas this is less important for others. These concerns are relevant because of a notable feature of the apparel design sector – the practice of imitation and the reworking of ideas. Copying is pervasive, appears to be an important mechanism for the dissemination of ideas and the formation of taste, a necessary part of the creation of trends. However it must coexist with product innovation and the need to express difference (Bianchi, 2002; Cappetta, Cillo, & Ponti, 2006; Mora, 2006; Rinallo & Golfetto, 2006). Understanding what others do, in order to position their own work, is an aspect of the designer's product positioning choices - whether to be an originator, an imitator or someone who ignores the work of other designers altogether (Malem, 2008).

The apparel designing process involves idea generation, experimentation with materials, cuts and themes, test production through the manufacture of samples, refinement and final decision-making (Rieple and Gander, 2009). As a symbolic good, fashion design necessarily participates in interrelated cultural trends, such as live music, art and ideas displayed in exhibitions. The benefits of being located within an aesthetic economy (Entwistle, 2002) are clear. Ideas can be worked up within an 'atmosphere' (Marshall, 1920) that increases the likelihood of its acceptance. However, only some designers work at the formation of a trend. In this case proximity to experimenting consumers, fellow designers, and related cultural sectors may be important (Grabher, 2002). For those designers that replicate the ideas of others, access to nodes such as fashion weeks may be more relevant. For other types, market knowledge, and the preferences of their customers, may be more germane, in which

case location-based knowledge resources may be irrelevant (Boschma, 2005; Gertler, 2003; Lorenzen and Frederiksen, 2005).

As a design is the outcome of relationally structured ideas and actions (Belussi and Sedita, 2008; Bilton, 2007; Drake, 2003; Granger & Hamilton, 2010), the social facilities of a locale are also relevant (Boschma, 2005). Meeting spaces such as bars and restaurants, cafes and clubs, can encourage the congregation of like-minded individuals whose cultural similarities enables the exchange of tacit knowledge (Gertler, 2003). They also provide a means of support and encouragement (Pratt, 2002); as producing something novel, especially one that is rule-breaking, can be nerve-wracking and isolating, social contact can have an important role in building confidence and spirit (Bstieler, 2005). Dense social networks also provide a warning system against opportunism that can help reduce the uncertainty of relations conducted within volatile market environments. Trust can be more effectively established through face-to-face communication (Storper & Venables, 2004) and the bonding that comes from repeated social interactions, often during periods of project 'down-time' (Boschma, 2005; Grabher, 2002).

Finally when considering the role of location and proximity in fashion designing it is necessary to consider a particular place of interactions; the fashion show or exhibition. These annualised events, take place in the major fashion capitals and function as temporary clusters, providing a dense set of knowledge resources and opportunities to interact. These nodes bring together knowledge from around the world and play an important role in the negotiation of meaning around designs (Aspers, 2010; Power & Jansson, 2008; Rinallo & Golfetto, 2006). They are a concentrated form of physical co-location that offer designers an opportunity to both display and access market and trend information. As fashion designing is a blend of imitation and invention, involving an array of decisions that include artistic sensibilities, market based signals and socialised creativity, our question therefore concerns how these factors shape the attitudes of fashion designers working in MSEs.

#### Methodology

We selected micro-sized fashion design firms because of their likely sensitivity to various aspects of proximity, including their dependence on external resources to supplement their own. Earlier qualitative research (Rieple and Gander, 2009) had suggested that designers were distinguishable by their relative focus on two imperatives: *market responsiveness*, the need to be attentive to the needs and purchasing trends of consumers (Cillo, De Luca, and Troiloa, 2010); and *peer responsiveness* (Hauge, Malmberg, and Power, 2009; Schiermer 2010), the importance placed on the work of other fashion designers. This study had also revealed categories of external resources that designers might draw on in their creative practice. One referred to aspects of their locality that provided a socially sympathetic infrastructure (Pratt, 2002), or sources of inspiration, for example social spaces, markets and streets, museums and art galleries. Another included the nodes created by fashion events and exhibitions (Moeran and Strandgaard-Pedersen, 2011). Such meetings of industry participants offer opportunities to access industry-specific knowledge (Maskell, 2001; Maskell and Malmberg, 2007), providing sources of inspiration as well as indications of the activity of colleagues.

We operationalised these constructs in a questionnaire and created new scales for these variables. Existing scales, for example for market orientation (e.g. Cillo, De Luca, and Troilo 2010; Narver, Slater, and Maclachlan, 2004), were deemed not suitable for our purposes. They measure the extent to which large firms are structured to absorb and react to markets, rather than the micro firms that are the subject of our research.

Since our aim was to establish how MSE design firms used resources, our sampling strategy was purposive in targeting firms that had fewer than 10 employees. These do not typically feature in company indices or the UK's registrar of companies. We therefore created a database of over 1000 fashion design firms from publicly available business directories (along with a few from other public sources such as Google maps), a London-based fashion agency's 2008 directory, participants in London Fashion Week in 2009 and 2010, and attendees at Pure 2011, a London-based trade show specifically aimed at smaller designers and contemporary fashion.

We initially contacted firms by phone. A link to the questionnaire was emailed immediately and a reminder sent if necessary. This elicited a response rate of only 9.4%, partly because of difficulties in reaching the designers themselves, rather than their agents. Additional responses were obtained

through administering the questionnaire in person, through attending Pure or through using a snowball method; early participants directed us to additional designers. Eventually, we obtained 91 usable questionnaires. Our respondents are not representative of the total population of apparel designers. It is limited to those micro-sized designers that we could establish contact with, heavily skewed towards London-based firms, and towards designers at the more fashionable end of the apparel design spectrum. However, it furnishes insights into a range of contrasting attitudes to proximity.

## Data findings and analysis

Table 1 gives descriptive statistics for responses to the questionnaire.

[Table 1 about here]

We first sought to establish the validity of the scales we had used for the various concepts elaborated above. While it was possible to extract a scale for market responsiveness that met accepted standards for reliability (Cronbach alpha = 0.768), the scales for other variables had Cronbach alphas in the range 0.51-0.63, below the normal benchmark of 0.7. As will become clear from the discussion below, these constructs are more granular than previous research had led us to expect.

We used exploratory factor analysis to determine the true latent dimensions within our data (Drejer, 2007; Pett, Lackey and Sullivan, 2003). We applied principal components analysis; after experimenting with both varimax and quartimax rotations (Brown, 2009; Leiponen, 2005) we settled upon the latter as yielding a simpler data structure (Bryant and Yarnold, 1995). Inspection of the scree plot revealed a point of inflection after extraction of the seventh and eighth factors. There were earlier points of inflection but the eigenvalues of the factors at that stage were all >2. Later points of inflection occurred when the eigenvalues were <1.

Joint consideration of the eigenvalues and scree plot favoured either a 7 factor or an 8 factor model.

Confirmatory factor analysis (CFA) (Punj & Stewart, 1983), however, showed that only the factors in the 7-factor model met acceptable standards (SPSS Guidelines) in terms of both the reliability of the

regression weights of the variables and of the Cronbach alpha. Table 2 shows the outcome of the CFA for the 7-factors.

[Table 2 about here]

The questions that were retained for the next stage in the analysis were those with a correlation coefficient with one of those seven factors whose absolute values was > 0.4 (Hedges, 2007; Kline, 2002). For each factor, the retained questions (listed in green in Table 3) comprised a mix of questions relating to different aspects of proximity: market responsiveness, peer responsiveness and use of each category of resource.

[Table 3 about here]

Hierarchical cluster analysis was then conducted using these retained cluster centers. The mean response by cluster members to each of those questions, on a scale 1-100 where high scores indicate strong disagreement, is shown in Table 4 below.

[Table 4 about here]

Inspection of the agglomeration schedule and the dendrogram agglomeration revealed that both a three and a four cluster model provided plausible groupings of the 91 respondents. While the three cluster model was attractive in that it contained no cluster with fewer than 20 respondents, it excluded 8 respondents. We judged that the four cluster model was superior by virtue of having only three of the 91 respondents who were not allocated to any cluster. The three largest of the four clusters had much in common with those in the three cluster model, so that the broad thrust of our discussion and conclusions are not sensitive to the choice of model. In order to define a cluster we selected the most relevant questions as determined by their F-statistic within the ANOVA analysis. Those with F statistics greater than 10 (Cohen, 1977) are highlighted in table 4 with an asterisk and in bold type. In addition we asked a small number of open questions that do not appear in the cluster groupings. These addressed demographic details, information about colleges attended, time in business, and the

strategic positioning of the firm. Although they do not form the major part of this paper, where appropriate we draw on these questions to explain differences between the clusters.

Before we discuss the specifics of these clusters, it is helpful to put them in the context of the overall sample. Our respondents showed, through the response means to MR 1 to MR 10 and the open-coded questions, a high regard for fashion trends and the market place. Taken as a whole they saw the need to respond to customers (MR 9); they were interested in aligning their designs with market trends. As the literature predicted, they drew strength from being in "happening" or "buzzy" environments where they could encounter compatible souls (RSSI 2, 3, 6) and people who were experimental or trend-setting (RK 2). These environments influenced their design output (RSSI 4). They also seemed enthusiastic about socializing with or discussing designs with their peers (RSSI 10, RK 3) and allowing them to see work in progress (RNO 5). This indicates the importance of working within a socially sympathetic infrastructure of meeting places, sources of ideas and inspiration (RK 6) and people (RSSI 8, RK 2, RSSI 6). Such ecologies were further valued for what might be described as the increased opportunity to be lucky and the chance encounters that led to new work opportunities (RK 4).

#### **Results and discussion**

In this paper, through a combination of factor and cluster analysis, we have established the existence of four types of fashion designer working in MSEs. These groups were distinguishable in the type of proximity (Boschma, 2005) that they favoured and the extent to which they chose to be embedded in their environment (Sinozic & Tödtling, 2014). They offered different combinations of responses to questions on their use of local environmental resources, their attitude towards and engagement with fellow designers, the importance placed on satisfying customer needs, the value and use of fashion events, and the role of market information from surveys and street scenes. For resource-constrained MSEs it might have been expected that something that was important to one designer might be important to all. Our findings show this is not the case. Our sample was in some ways a single

'species' of designer, so that the discovery of a monoculture in terms of attitudes to proximity would not have been a surprise. However, we found a noticeable degree of diversity.

Four types of designer emerged from our data. We have characterised these as: Customer-directed designers (C1); Disconnected Designers (C2); Fashion Crowd (C3); and Knowledge-Seekers (C4). Figure 1 visualises their different positions on the various items.

Figure 1 about here

#### C1: Customer-directed designers (39 members)

C1 is the largest group. Its designers are attentive to markets and customers. Market research is an important source of guidance for their design work. They also place importance on networking at fashion events, feel stimulated by buzzy places and believe that it is important to be around people who experiment with their look. Members of this cluster do not, however, appear interested in other designers, nor do they regard fashion experts or sample houses, places where other designers' work was visible, as useful sources of information. In their response to the open-ended questions, the members of this cluster attach low importance to design awards as a measure of their success.

This type of designer seeks to access knowledge of developing trends through witnessing the experimentation of consumers and gaining from the buzz of energetic and vibrant locales. Boschma (2005) classified this as geographical proximity, a way of learning or accessing of resources that is enhanced by the spillovers produced by the physical proximity of a range of cultural activities and actors (Grabher, 2002). Physical presence serves to help understand the tacit knowledge that is unconsciously held, and defined by wider local culture (Gertler, 2003). Visibility is essential for this type of knowledge acquisition. Critical to the success of this group of designers is therefore their ability to absorb and apply the external knowledge in which they are situated.

Design know-how, and developments in new technologies and materials appear less important to this group, suggesting that their designing is unlikely to be especially innovative or technically difficult, but more 'middle of the road' in character.

#### C2 Disconnected Designers (13 members)

C2 designers appear to epitomise that earlier stereotype of the creative – the solitary individual who works alone on their ideas, notable for their rejection of both customers *and* peers as useful sources of information. They appear detached from their environment, rejecting external sources of information at fashion events and placing little importance on local designers, or the benefits of being around experimental users of fashion. For these designers localised resource nodes such as sample houses and proximity to their peers are virtually irrelevant.

These designers reject the value of physical proximity evidenced in C1drawing principally on internal inspiration and independently derived ideas. This type places value on the opinion of fashion experts, and are disproportionately likely to attach some importance to fashion awards as a measure of success. In Boschma's terms (2005) this can viewed as institutional proximity. Being guided by the judgements of institutionally powerful and established figures in the hierarchy enables these designers to remain physically independent but still recognisably part of the sector. These designers' lack of embeddedness and social proximity allows them to remain non-conformists (Boschma, op cit.).

### C3: The Fashion Crowd (6 members)

C3 was the smallest group. These designers draw their influences from their fellow designers and people who experiment with their look. This group is very peer focussed, seemingly at the expense of market based sources of information and guidance. They reject the view that the customer is king and deny the value of market research. However, their position is more nuanced than this suggests as these designers also recognise the importance of satisfying customer needs. They also place little value on fashion events and view the opinions of fashion experts as irrelevant.

In contrast to the institutional proximity of C2, the fashion crowd access resources through social proximity. This is most useful where tacit knowledge (Polanyi, 1944) is concerned. Difficult to verbalize information and knowledge resources requires trust, bonds of friendship that improve communication and support the transfer of complex ideas (Mathews and Stokes, 2013; Uzzi, 1997). Apparel design, as a symbolic good valued for its intangible as well as tangible benefits, frequently requires tacitly expressed communication to convey understanding and share ideas. Members of this group of designers are likely to be experimental, leveraging their work on a circulating set of ideas within their social group.

## C4: The Knowledge-Seekers (31 members)

C4 designers were well represented in our sample. Its members are strongly engaged with obtaining knowledge of all kinds: they seek out all external sources of inspiration and guidance, from the street to fashion experts, fashion events, fellow designers and customers. They are the reverse of the disconnected designers of C2. Of the four clusters they are the most strongly oriented to the market, although unlike C1, with whom they share a regard for market signals, they also value the views of fashion experts and value fashion awards as a measure of success. Sample houses, places where they may see the work of other designers, are regarded as interesting places to browse.

The first three types of designer described above appear to favour different types of proximity (Boschma, 2005). Geographical for the *customer directed* designers, institutional for the *disconnected designers* and social for the *fashion crowd* design cluster. However, as Boschma highlighted, the benefits that follow each type of proximity operate in a curvilinear manner. Too much physical proximity and imitation at the expense of novelty may result. Too higher a degree of institutional proximity and designers may become constrained in how they act, electing to follow the rules and therefore becoming vulnerable to technological innovations or regulatory shifts that disrupt the way the sector is organised. While too dense a

social proximity can create closed, internal loops that make change difficult and responsiveness to new movements difficult.

There is a consequent need to balance the types of geography that the most innovative designers need to engage with. The *knowledge-seekers* cluster appear to be just such a group. They engage in physical geography to access knowledge spillovers, institutional geography to obtain reputational resources and social geography to gain from tacitly expressed knowledge communicated using trusting socialised relationships. These designers feel that they need to obtain knowledge not simply from their own locale, from other designers and consumers, but international or wider national knowledge that is brought to nodes such as sample houses or fashion events. We assume (although this is a matter for further research) that this cluster have their focus on a large, fast-moving (fast-fashion perhaps), international market, where being able to judge wider movements in trends and ideas is essential.

#### Conclusion and directions for further research

In this paper we have refined understanding of the role of local proximity in a globalised industry, fashion design. Designers sought to gain local street scenes and designers (Ashton, 2006; Rantisi, 2004), and the temporary spaces of fashion events (Moeran and Pedersen, 2011). Our data did not allow us to define the types of designs that the designers in each cluster produced (Malem, 2008). One further research direction is therefore an aesthetic, product specific, one. Do, for example the different designer attitudes and resource types result in different types of design, degrees of experimentation and novelty? We speculate that C1 produce specific styles for a defined consumer group, to which only incremental changes are made each season. C2, as the group which is self-contained and internally-driven, is likely to produce one-offs, with little desire for imitation, or indeed great numbers of sales: they are the closest to designer as artist rather than businessperson of the clusters. C3 is perhaps the

hardest to categorise, although we surmise that their work is likely to be experimental and trend-setting. For this to succeed they need to 'feel' the work of their fellow designers. C4, we believe are most likely to be the most international in their work, focusing on large-scale, more populist designs, and perhaps selling to global agents rather than to a local consumer base.

Which designer type is the most successful, economically and reputationally, is also still to be discovered. Our data were limited in the type and scope of performance indicators we assessed, and more precise measures such as sales and growth over time would capture economic capital (Bourdieu, 1993), and determine whether the particular strategies of each type produced sustainable enterprises. From this it would be possible to assess whether social, physical, or institutional proximity (Boschma, 2005) is more important in the specific sectors of the apparel industry that the various designer types occupy. It would also allow us to assess whether behaviors such as those found in C2, which run counter those seen as optimal by cultural economists, do in fact lead to inferior economic performance. Further research could also examine the generation of social capital (Bourdieu, 1993). Measures for the generation of social capital are available such as tracking column inches in trade press, write-ups on fashion blogs or the number of twitter followers. These may differ according to the different priorities of each cluster, and their dependence on different types of proximity or capital. Once again, we speculate that C3 and C4 are likely to be most engaged in social media; C1, less likely to depend on public media and more on private communications with specific consumer groups; and C2, engaged, if anything, with fashion experts.

One limitation of our study is its focus on micro-sized designers: we do not claim that our results are representative of the population of fashion designers as a whole. Our focus on micro-enterprises means that we do not know if our typologies apply equally to designers in

larger organisations, where some types of resources are available more readily in-house. Given the increasingly global and digitally-networked environment, whether larger design enterprises access a different set of geographically constituted resources is a question for further research. Similarly, though we would argue that the range of designer attitudes observed in our clusters are in part a function of the visual and physical character of fashion products, further research into whether similar groupings can be observed in other creative and cultural industries may be revealing. For example, the local-global relationship between content origination and the manufacture and distribution of cultural products can also be seen in sectors such as popular music, digital game design, and would therefore appear to be promising research fields for this type of investigation.

To summarize, this study has investigated an under-researched stage of the fashion industry value chain. In examining designers working in micro-sized enterprises we have been able to identify diversity in their attitudes to, and uses of, different types of geographies. This provides support for Boschma's (2005) conceptualisation of proximity and the benefits of widening our understanding of situational resources beyond the physical to include the institutional and social. In so doing, a distinctive range of positions has been revealed and our understanding of how resource-constrained firms adapt their practices in the light of their environment has been improved.

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## **Table 1: Descriptive Statistics**

Questions were measured on a 100 point sliding Likert scale (strongly agree – strongly disagree) using Qualtrics on-line survey tool. The order of the questions was randomized and all questions were compulsory.

	_				
Target construct	On scale 1-100. High score = strong disagreement	Ν	Minimum	Maximum	Mea
Market	<del> </del>	-	+	+	+
responsiveness					
•	MR 1. I design for myself not for the market	88	3 .00	100.00	63.0
	MR 2. I pay little attention to current fashion trends	90		100.00	59.6
	MR 3. It's important to give customers what they want	83		100.00	18.7
	MR 4. My designs are directed at specific customer segments	83		100.00	28.2
	MR 5. I measure my success by selling large numbers of my clothes	88		100.00	44.1
	MR 6. It is important to me to not get pulled into reacting to customer demands	89		100.00	58.9
	MR 7. Consumer and market research is a useful way of understanding what I need to do	86		100.00	39.6
	MR 8. The customer is king	88		100.00	28.9
	MR 9. I think it is important to get inside the heads of my potential customers	84		100.00	29.3
	MR 10. If I think too much about what the customer wants, it stunts my creativity.	83	-	100.00	52.5
Peer responsiveness					
	PGC 1. I like to discuss my designs with other fashion designers	88	3 .00	100.00	45.0
	PGC 2. I don't care what so-called fashion design experts think	89		100.00	51.4
	PGC 3. Other people's designs are a useful starting point for my own thinking	84		100.00	47.9
	PGC 4. It is easy for me to think of other designers who have influenced me	83		100.00	40.9
	PGC 5. I see myself as a leader in my particular field and not a follower	83		99.00	29.9
	PGC 6. I enjoy being controversial	86		100.00	49.3
	PGC 7. I am pleased if my fellow designers imitate my work	83		100.00	54.4
	PGC 8. It is of no importance if my designs are out of line with what other people are doing	83	_	100.00	40.2
	PGC 9. I regard success as the number of column inches I get in the trade press		7.00	100.00	59.7
	PGC 10. Success to me is about creating a work of art		00. 00	100.00	45.7
Importance of nodes					1_
	RNO 1. I see attendance at fashion shows as very important	83	3 .00	100.00	38.9
	RNO 2. London Fashion Week is a waste of time	84		100.00	63.2
	RNO 3. To be successful you have to talk to people at fashion events	88		100.00	36.7
	RNO 4. It is always interesting browsing around sample houses	88	_	100.00	38.1
i	RNO 5. I prefer to keep my designs out of sight until they are finished	85		100.00	39.4
	RNO 6. Sample houses are good for getting an idea of what's going on	88		100.00	52.3
i	RNO 7. I get by without attending fabric or materials fairs	88		100.00	53.0
	RNO 8. Fabric or materials fairs give me information I cannot get by other means	84		100.00	52.3
	RNO 9. I find most of my suppliers at fabric or materials fairs	88		100.00	56.9
Importance of a				+	+
socially					
sympathetic					
infrastructure					
		$\perp$			
	RSSI 1. It's important to have lots of places to socialize near to where I work		.00	100.00	42.4
	RSSI 2. I like the feel of working in a happening place		.00	100.00	32.5
	RSSI 3. 'Buzzy' places are stimulating places to work in	83		100.00	31.0
	RSSI 4. The area that I work in has no effect on the work I produce	85	.00	100.00	58.5
	RSSI 5. I avoid ugly environments	83	3 .00	100.00	44.4
	RSSI 6. I get strength from the area where I work			100.00	38.4
	RSSI 7. I don't like being surrounded by 'suits'		3 .00	100.00	49.9
	RSSI 8. I love working close to the kinds of people I like		.00	100.00	24.5

	RSSI 9. I am comfortable working in any kind of neighborhood	87	.00	100.00	43.91
	RSSI 10. The good thing about where I'm based is that there are places nearby where I am unlikely to meet fellow designers		.00	100.00	60.93
Importance of					
sources of					
informal					
knowledge					
	RK 1. I regularly bump into people who are at the forefront of new trends	88	.00	100.00	46.72
	RK 2. I like to be near to people who experiment with their own personal look	83	.00	100.00	30.13
	RK 3. I never bother to talk to my neighbouring designers	83	.00	100.00	67.69
	RK 4. Chance encounters have led to interesting projects	83	.00	100.00	29.55
	RK 5. I work close to sources of design know-how	83	.00	100.00	40.48
	RK 6. I get great ideas from visiting museums and galleries	83	.00	100.00	34.96
	RK 7. I find out about trends from other designers in the area	83	.00	100.00	63.31
	RK 8. Being located close to other designers is irrelevant to me	86	.00	100.00	49.13
	RK 9. I find out about trends from consumers in the area	88	.00	100.00	51.42
	RK 10. I could do my work on top of a mountain if needs be	83	.00	100.00	49.12

**Table 2. Confirmatory Factor Analysis** 

Factor	Degrees of freedom	Chi-square	Probability level	CFI	RMSEA	P of Regression Weights	Cronbach α
1	14	21,986	0,079	0,932	0,08	<0,001	0,757
2	9	16,399	0,059	0,875	0,096	<0,001 (except Q48 < 0,003)	0,684*
3	2	6,188	0,023	0,968	0,081	<0,001 (except Q56 < 0,006)	0,620
4	2	6,766	0,034	0,909	0,063	<0,001	0,706
5	2	6,453	0,078	0,982	0,09	<0,001	0,689
6	2	5,687	0,079	0,962	0,096	<0,001 (except Q15 < 0,002)	0,682
7	2	7,414	0,018	0,327	0,089	<0,001	0,442

Note: Cronbach- $\alpha$  computed after adjusting data: a high score in some questions indicates agreement, rather than disagreement with, underlying construct.

**Table 3 Principal Components (Factors)** 

On scale 1-100.	Factor						
High Score = Strong disagreement							
Question nos.	1	2	3	4	5	6	7
MR 6	513	.176	.010	103	.084	.334	173
MR 7	.549	.057	167	.131	.222	.044	.297
MR 8	.630	117	118	.118	.283	.191	.301
MR 3	.605	.252	.164	.035	071	.317	.041
PGC 2	220	.066	.655	074	072	038	.076
PGC 3	.150	.107	171	.647	300	.072	.010
MR 9	.786	.079	045	038	.014	021	078
PGC 4	.203	.518	070	.059	200	.509	.091
PGC 10	.010	.050	.565	.048	.257	.246	180
RNO 2	028	029	091	.074	.004	757	.042
RNO 1	009	.315	.208	.123	.012	.592	.009
RNO 3	.168	089	231	.254	.249	.636	.213
RNO 4	.127	.606	467	.120	032	.105	.138
RNO 5	.013	029	.072	123	.486	141	.058
RNO 6	001	.364	632	.189	.109	.201	.251
RNO 7	319	004	.067	.118	683	142	.035
RNO 8	.129	.118	041	.012	.685	.160	.142
RNO 9	005	007	.163	.282	.531	.203	.009
RSSI 1	.044	.244	.024	.193	007	200	652
RSSI 3	.503	.136	.065	.493	.175	.064	.027
RSSI 5	.160	.296	.115	.119	.021	135	.596
RK 2	.273	.577	032	023	053	013	208
RK 3	319	103	041	156	.354	237	.458

RK 4	.221	.530	.240	.069	022	023	107
RK 5	.537	.217	.176	075	.047	.117	375
RK 6	.014	.603	.048	.007	.155	.125	.113
RK 7	.126	016	.004	.713	018	.042	.176
RK 8	100	.039	.113	683	.011	.083	.114
RK 9	.235	263	.147	.500	084	.124	.402
RK 10	044	.504	.053	146	015	.008	059

**Table 4 Final Cluster Centres** 

	On scale 1-100. High Score = Strong disagreement	Cluster (No of			
		members)			
Question		1	2	3	4
nos.					
		(39)	(13)	(6)	(31)
MR 6	It is important to me to not get pulled into reacting to customer demands	60.00	49.31	44.33	64.45
MR 7	*Consumer and market research is a useful way of understanding what I need to do	39.82	68.85	67.20	22.10
MR 8	*The customer is king	23.54	57.08	80.17	13.57
MR 3	*It's important to give customers what they want	16.36	51.08	11.00	9.97
MR 9	I think it is important to get inside the heads of my potential customers	36.33	46.23	26.20	14.17
RSSI 3	*'Buzzy' places are stimulating places to work in	32.69	54.58	53.20	16.00
RK 5	*I work close to sources of design know-how	43.31	71.17	11.40	29.67
PGC 4	*It is easy for me to think of other designers who have influenced me	45.22	71.00	25.60	26.37
RNO 4	*It is always interesting browsing around sample houses	47.59	55.62	41.33	17.57
RK 2	*I like to be near to people who experiment with their own personal look	37.44	48.75	3.40	18.37
RK 4	*Chance encounters have led to interesting projects	29.86	61.67	2.20	20.90
RK 6	I get great ideas from visiting museums and galleries	38.14	47.17	21.60	28.50
RK 10	I could do my work on top of a mountain if needs be	46.25	63.33	2.40	54.67
PGC 2	*I don't care what so-called fashion design experts think	39.33	60.15	2.50	72.58
PGC 10	Success to me is about creating a work of art	40.82	61.58	55.00	43.72
RNO 2	Sample houses are good for getting an idea of what's going on	56.31	60.15	78.83	38.67
PGC 3	Other people's designs are a useful starting point for my own thinking	49.61	70.62	55.60	34.93
RK 9	I find out about trends from other designers in the area	61.69	77.67	96.00	54.07
RK 8	Being located close to other designers is irrelevant to me	44.58	38.69	21.00	64.13
RK 7	I find out about trends from consumers in the area	40.38	69.00	78.50	52.73
RNO 5	I prefer to keep my designs out of sight until they are finished	29.70	41.85	71.20	45.00
RNO 7	I get by without attending fabric or materials fairs	57.41	44.92	28.00	56.03
RNO 8	Fabric or materials fairs give me information I cannot get by other means	44.67	60.38	87.00	52.37
RNO 9	I find most of my suppliers at fabric or materials fairs	47.15	67.31	91.83	58.17
RNO 2	London Fashion Week is a waste of time	62.83	52.15	64.00	68.47
RNO 1	I see attendance at fashion shows as very important	41.83	57.17	18.00	31.67
RNO 3	*To be successful you have to talk to people at fashion events	29.82	58.23	84.00	27.03
RSSI 1	It's important to have lots of places to socialise near to where I work	53.83	43.31	14.20	33.03
RSSI 5	I avoid ugly environments	41.03	62.33	41.40	41.87
RK 3	*I never bother to talk to my neighbouring designers	56.28	56.58	94.80	81.33

<sup>\*</sup>Has an F score > 7 in between-clusters ANOVA. These are the questions that are used to define the clusters

Figure 1. Typology of Designers

