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Business networks, social capital and the productivity of creative industries in Indonesia

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Business networks, social capital and the productivity of creative industries: a case study of Indonesia

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Abstract

This study examines the degree to which networking characteristics and practices influence the ways in which creative industries impact regional productivity. The notion of social capital is used to conceptualise the complex nature of networks, including both professional and social relationships that occur on multiple levels. This study is set in the context of Indonesia and uses mixed methods, namely multilevel and qualitative analyses. The results show that both firm characteristics and the environment are associated with the productivity of creative industries. Regional environments provide opportunities for creative firms to find specialist suppliers, to gather market information and, more importantly, to find and cross-fertilise new ideas. Although regions provide these opportunities, the absorptive capacity of the firms is crucial in being able to internalise the knowledge available in the environment and to transform this into innovative values embodied in their products.

Keywords: networks
social capital
creative industries
regional development
Indonesia

1 Introduction

It has been shown that creative industries benefit from the diversified economic activities present in cities, and that these provide opportunities to find and combine, or ‘cross-fertilise’, various skills and ideas in an informal way (Feldman and Kogler, 2010; Karlsson, 2011; Potts, 2007; Rosenthal and Strange, 2003). When creative industries interact, exchange ideas and collaborate with other industries, they may not only benefit from existing regional

conditions, but also potentially foster regional economic growth. A possible mechanism is that these industries, through sectoral and knowledge spillovers, introduce and percolate new values to the economy (Boix-Domenech and Soler-Marco, 2015; Fahmi and Koster, 2015; Potts and Cunningham, 2008). Despite creative processes occurring on multiple levels (i.e. individual, team, group and environment) (see Cattani and Ferriani, 2008), the role of creative industries is often examined at the regional level. It consequently remains unclear which mechanisms creative firms utilise across these levels in performing their creative processes, and which may then lead to increased regional productivity.

A potentially better way to explain the mechanisms is to study networks that connect the multiple levels in which these creative processes take place (see also Granger and Hamilton, 2010). Understanding the characteristics and processes through which networks influence the economic performance of creative industries is important since networks provide interaction opportunities and conditions that facilitate creative industries in conducting business-related activities as well as in seeking and processing new ideas (Karlsson, 2011). The term ‘networks’ here includes not only professional ties in which creative industries are involved in supplier-buyer or transactional relationships, but also social networks in which these industries informally gather ideas that might be useful for their creative processes (see Daskalaki, 2010; Huggins et al., 2012).

As such, this study aims to examine the extent to which networking characteristics and practices influence the ways in which creative industries contribute to regional productivity. The notion of social capital – a culture of interaction among people which can smooth transactions, cooperation and the exchange of resources (Malecki, 2012) – is used to conceptualise the features of networks. The use of this concept is relevant for two reasons. First, social capital can illuminate the complex ties around creative industries, where professional and social (non-economic) networks are often difficult to disentangle (Möller and Halinen, 1999). Interactions and ties among economic actors may not only ‘bridge’ cooperation and learning, but also ‘bond’ individuals with a feeling of sameness, which can kill the desire to compete (Iyer et al., 2005; Malecki, 2012). Second, the concept of ‘social capital of the enterprise’ enables observations to be carried out on multiple levels: internal as well as external to the firm, covering production-, market- as well as environment-related social capital (Westlund, 2006).

This study contributes to the discussion on knowledge transfer in geographical clusters in general, and in creative industries in particular. As Thornton and Flynn (2005: 329) note, ‘research that links spatial and relational aspects of the regional contexts to the micro process of entrepreneurship is relatively underdeveloped’. Specifically, it is still unclear how a creative firm connects to other firms and creates a pool of knowledge, and how it processes this knowledge in its own production processes. In addressing this issue, this study provides empirical evidence at the micro-level, with productivity measured at the firm level. Two empirical approaches are employed: multilevel and qualitative data analyses. To begin with, a multilevel analysis is conducted to assess the degree to which firm characteristics and the

environment can account for productivity. This method is appropriate since it can reveal whether social capital and networks, both internal and external to a firm, affect productivity simultaneously. Although this method can identify the locus of those creative processes that most contribute to the creation of value, the mechanisms through which firms and their environment relate to each other and boost productivity will remain unclear. Therefore, as a second approach, in-depth interviews are conducted to elaborate on how creative firms benefit from professional and social networks on different levels, and what kinds of resources and knowledge these firms obtain from their networking activities. The results of these analyses contribute to both academic and policymaking worlds in terms of where and how investments in social capital and network building should be applied.

This study is set in the context of Indonesia for two reasons. First, professional and social networks are clearly present. In Indonesia, and especially Java, bonding social capital is rather strong and potentially influences economic processes (e.g., Putnam et al., 1994). Second, by focussing on Indonesia, this study contributes to the understanding of creative industries and wealth creation beyond the developed world. In Indonesia, as in many other Asian countries, traditional businesses are promoted as creative industries despite these tending to focus on preserving and exploiting heritage values and benefiting from communal creativity in the sense that tradition is used as the main source of creativity (Fahmi et al., 2016). As such, these ‘traditional’ cultural industries benefit from networks, and contribute to regional productivity, in a different way to ‘real’ creative industries.

This remainder of this paper is structured as follows. The following section (5.2) presents a literature review on networks and the productivity of creative industries. This is followed by the methodology adopted (5.3). The next two sections then present the results of the analyses, the multilevel analysis in Section 5.4 and the qualitative analysis in Section 5.5. This is followed by a discussion on the findings (5.6) and conclusions (5.7).

2 Conceptualising the role of networks in the productivity of creative industries

Creative industries have been identified as benefiting from diversified economic activities (Feldman and Kogler, 2010; Lazzeretti et al., 2008; Potts et al., 2008). These industries also rely heavily on social relationships and informal interactions, which make it easier to obtain information, ideas and knowledge, and to generate economic value through their creative processes (Daskalaki, 2010; Karlsson, 2011; Neff, 2005; Potts et al., 2008). Further, while creative firms interact and communicate with other economic activities, they may also have spillover effects on the regions in which they operate. These effects can be shown to occur when firms collaborate on stimulating innovation in regional networks (Rutten and Boekema, 2007), and such collaborations can take place if firms have good relationships and trust each other (Iyer et al., 2005; Malecki, 2012; Westlund, 2006). Here, social capital will have a strong influence on the networking behaviours of creative industries.

In this section, a framework is developed for analysing how specific features of networking characteristics and mechanisms influence the productivity of firms in creative industries. The notion of social capital provides insights that can be used to conceptualise the complex nature of the economic and social relationships around creative industries. The literature has acknowledged the importance of social capital features (e.g., trust and friendship) and networking events (e.g., conferences and meetings) in the productivity of creative firms (Neff, 2005; Wu, 2007). However, it is less clear how these social aspects and events benefit the creative processes that occur on multiple levels. Economic geographers and regional economists show a great interest in social capital, but tend to focus primarily on the macro- (regional) level, whereas the actual process of knowledge transfer seems more likely to occur within groups of individuals or firms (see Cattani and Ferriani, 2008). Therefore, in developing a framework, Westlund's (2006) concept of 'the social capital of the enterprise' is adopted as this can comprehensively characterise networking forms and mechanisms, both internal as well as external to the firm.

The following parts discuss which networking characteristics and practices at each level influence the productivity of creative industries. These levels cover the internal situation of the firm as well as the firm's external links/relations, including production-, market- and environment-related connections.

2.1 Internal social capital of the firm

Networking, either active or passive, is seen as crucial in running a business (Banks et al., 2000). The main motivation for firms' networking behaviours is that they cannot individually control their activities or futures (Caves, 2000; Möller and Halinen, 1999). Networking provides opportunities for these firms to obtain new ideas and knowledge. However, they need to proactively pick up these opportunities since networking relationships are not free (Möller and Halinen, 1999). Creative firms need to invest their time and financial resources on developing such relationships, and they need to have the capability to identify, evaluate, construct and maintain their positions and relationships in the networks (Karlsson, 2011; Möller and Halinen, 1999). The firms also need to have an absorptive capacity, that is, the capability to absorb and process external knowledge, so that it will be useful to their productivity (Qian and Acs, 2013; Smit et al., 2015).

The ability to build relationships and process externalities can be referred to as the internal social capital of a firm. Social capital at this level reflects the extent to which a firm's management and employees are able to internalise firm-specific knowledge and gain access to externalities, such as new ideas, that are available in the networks (Westlund, 2006). This internal social capital is embodied in norms, attitudes or traditions, and it reflects the internal spirit and the motivation of the firm for investing resources in networks (Westlund, 2006). It also represents the internal climate for cooperation. A firm consists of individuals, often grouped in teams, who share knowledge and seek to codify certain knowledge used in the development of the business. As these individuals could have different knowledge and

experiences, the exchange of knowledge between them can generate new values and innovation (Desrochers, 2001; Karlsson, 2011).

In brief, the networking capabilities and behaviours of firms depend on the degree to which they are willing to invest their resources in looking into networking possibilities. It is foreseen that the absorptive capacity and the internal social capital have a bearing on the productivity of creative firms, in that firms that actively invest in building networks are likely to outperform those that do not. Further, it is important to understand the mechanisms through which creative firms build networks. In this process, firms need not only to be open to interactions, they also need to be able to extract the benefits from the externalities and apply these in their production processes.

2.2 Production-related networks

In general, creative industries do not accomplish their production processes alone and they require complementary skills. Creative industries need to collaborate with specialist suppliers and this is often done repeatedly on the basis of trust (Banks et al., 2000; Caves, 2000; Wu, 2007). Creative firms are generally small, and suppliers are needed not only because they provide raw materials and certain components, but also to help in certain important stages of the innovative processes and this may enable the creative firm to overcome size constraints (see Lipparini and Sobrero, 1994). Co-location and subsequent interactions between creative industries and suppliers can facilitate information exchange, joint learning as well as the diffusion of intangible capabilities (Lipparini and Sobrero, 1994). In this respect, knowledge transfer can go in both directions: suppliers can provide information, such as technological innovation in certain materials and methods, while creative firms can communicate their design ideas so that suppliers can provide suggestions on the materials and methods suitable for these specific needs.

Creative firms could establish criteria for the sort of suppliers with whom they wish to collaborate. While the basic requirements could be quality, cost and delivery (Caves, 2000; Hartley, 2005), supplier selection is more complicated in that ‘chemistry’ is needed to smooth the collaboration. Trust is required and is reflected in the degree to which both parties – the creative firm and the supplier – get along in a collaborative process and share knowledge comfortably (Banks et al., 2000; Wu, 2007). The existing knowledge of the individuals in the firm, as well as information about the complex information and specific suppliers gained from networks in the surrounding environment, can help smooth this process (Lipparini and Sobrero, 1994).

To sum up, a relationship between creative industries and suppliers can lead to innovation through mutual learning and knowledge transfer between both parties. In this regard, it is important to understand how this mutual learning process takes place and influences the performance of creative firms. One would expect suppliers to be able to influence directly the creative processes and productivity of creative industries by suggesting the use of specific ideas in the development of products. To smooth these collaborative processes,

aspects of social capital, such as trust and the ability to cooperate and communicate, are crucial.

2.3 Market-related networks

One of the fundamental characteristics of creative industries is that they need to monitor consumers' tastes and preferences. As such, they need to continuously carry out research and development on their products (Caves, 2000; Hartley, 2005). This is not an easy task since trends change dynamically and such industries are not always in direct contact with consumers. In addition, these industries need to maintain their sales and enhance their market share in order for their businesses to survive. Several efforts can be beneficial in managing market-related networks in creative industries. First, these industries can develop relationships with customers in many ways, such as through advertising and consumer clubs (Westlund, 2006), in order to maintain satisfaction and trust as well as to show that they are willing to respond to consumers' wishes. Second, creative industries also need to maintain their relationships with distributors (e.g., wholesalers, resellers, franchisees) and build relationships with suppliers (Caves, 2000; Hartley, 2005; Westlund, 2006).

It is apparent that market-related networks are crucial to the productivity of creative industries. Trust appears to be an important feature in the development of this type of network. Further, in order to expand their market share, creative industries need to keep an eye on the market information available in the surroundings (Karlsson, 2011). Such information might not only be available from existing and potential customers, but also from other parties in the surroundings, as described below.

2.4 Environment-related networks

As creative firms are embedded in their environment, they are exposed to the local/regional conditions as well as to the possibilities of building relationships that are not directly linked to production with other stakeholders, such as political decision-makers, universities and other firms (Westlund, 2006). These relationships are not necessarily aimed at developing supplier-buyer relationships, but rather at 'socialising' in general. Nevertheless, building these social relationships is triggered by the same motivation: to lower search costs and the risk of opportunism (Thornton and Flynn, 2005). For example, firm owners socialise to meet investors and look for new ideas for their products (Karlsson, 2011).

As Karlsson (2011) explains it, in principal, the environment provides a 'buzz' factor: it is a vibrant setting that offers interesting ideas, information and knowledge that are continuously updated and revised. The environment enables new knowledge to be combined and exchanged in various ways, for instance, individual firms can observe products and processes in different settings and incorporate these in their own ideas, and individual firms that possess different skills can collaborate with each other (see also Desrochers, 2001). In geographical terms, the buzz environment consists of local and nonlocal networks, both of which have different advantages. Local networks stimulate learning and creative processes

by generating opportunities for various spontaneous and unanticipated situations, through which creative firms can interact and form learning platforms. In comparison, nonlocal networks encourage the integration of different types of environments, cultivate different potentials and feed local interpretation and the use of ideas, information and knowledge gained from elsewhere (see also Huggins et al., 2012).

Among the possible relationships in the environment, inter-firm relationships – both within and between industries – have a strategic position as these potentially stimulate regional economic growth. There are different views as to how the concentration of firms fosters knowledge spillovers and innovation, often referred to as the debate on MAR (Marshall-Arrow-Romer) – Porter – Jacobs spillovers. Existing conceptual and empirical contributions show that creative industries benefit mostly from Jacobs-type externalities (e.g., Desrochers and Leppälä, 2011a, 2011b; Lazzeretti et al., 2008, 2012). Whereas the MAR and Porter lines argue that it is the concentration of firms from the same industry that encourages economic growth, Jacobs' view is that it is the proximity of firms from various industries that facilitates individuals with different perspectives and skills to exchange ideas and fosters innovation (Jacobs, 1969). Jacobs also claims the importance of local competition, which can accelerate the adoption of technology and eventually stimulate economic growth (Glaeser et al., 1992). Jacobs' spillover theory has been developed further by other scholars, most notably by Frenken, Van Oort and Verburg (2007) who separate the benefits of economic diversification, or 'unrelated variety', from the Jacobs externalities, or 'related variety' (see also Desrochers and Leppälä, 2011b). Related variety in essence reflects the knowledge proximity among producers within the same sector producing similar end-products, which refers to the potential to encourage cross-fertilisation of ideas and innovation (Desrochers and Leppälä, 2011b; Frenken et al., 2007). Despite the controversy over this concept, networks and collaboration are widely seen as crucial for innovation to occur (Desrochers and Leppälä, 2011b; Glaeser et al., 1992; Steinmo, 2015).

Related to this, in order to build collaboration, firms need not only formal strategies but, especially in creative industries, should also invest in developing social relationships (Karlsson, 2011). Social relationships are not just needed for the exchange of prestige and status, friendship, sense of belonging and power (Grandori and Soda, 1995), more importantly they can smooth and stimulate information flows and the exchange of ideas and knowledge (Scott, 2006; Thornton and Flynn, 2005). For this to occur, face-to-face contact is often needed, despite the increasing importance attached to social media and information technologies (Karlsson, 2011). It is worth noting that, at this level, regional culture, as well as social norms and values, might influence the interactions between these firms (Iyer et al., 2005; Malecki, 2012; Westlund, 2006). However, social relationships might not only support the creation of new knowledge, they could also generate negative externalities. While strong ties can lead to supportive interactions among firms, they might instead lead to a mutual reinforcement of existing ideas (Scott, 2006). In this respect, a balanced mix of weak and strong links is more likely to be synergistic than a set of either purely strong or purely weak links (Scott, 2006).

To sum up, inter-firm relationships potentially influence the productivity of creative firms, and this can be either in a positive or in a negative way. One could expect positive externalities to emerge if competition and collaboration are balanced, and if firms can adjust the strength of the ties between them. If social ties become too strong, or too weak, and do not encourage the combination of knowledge, then innovation is less likely to take place and products might not develop. Further, although the environment provides socio-cultural values and opportunities to build relationships, firms (or individuals within firms) need to grasp these opportunities and invest in building relationships. This implies that, in order to understand the degree to which networking affects firm productivity, analyses should be performed at multiple levels, including internal to the firm as well as on every level where the firm is embedded in networks.

2.5 Reflecting on the Indonesian situation

The conceptual arguments outlined above are generally seen as relevant to creative industries, these being firms that emphasise individual creativity, intellectual property and new knowledge. In the context of Indonesia, the term ‘creative industries’ is seen as somewhat broader, and not always in line with this definition, in that long-established traditional craft-based industries are promoted as creative industries. These traditional cultural industries have characteristics that are distinct from ‘real’ creative industries. Traditional cultural industries tend to share knowledge hereditarily in that it is handed down from generation to generation, although they might use new technologies to support their production processes. Nevertheless, these industries prioritise the promotion of heritage and traditional values over the creation of new knowledge. While creative industries utilise individual creativity, traditional cultural industries tend to benefit from communal creativity, in which tradition is the main source of ideas in the development of their products. Since tradition is a collective good, their individual creative acts cannot be disentangled from collective values and knowledge. As such, the ‘Western’ copyright protection mechanism cannot be applied to their products (Boateng, 2011; Fahmi et al., 2016). As such, one could expect the networking forms and mechanisms in traditional cultural industries to be different from those in creative industries. Differentiating between the two ‘creative industries’ would also help in identifying and understanding their specific needs, and identifying policy strategies that would support them.

Further, one could expect the internal social capital of creative industries and traditional cultural industries to be formed in different ways and thus to affect firm productivity differently. As creative industries are usually established on the basis of a recognised opportunity, their internal social capital and absorptive capacity are developed throughout the learning process. Creative industries exploit individual creativity and continuously need new ideas to sustain their production processes. Therefore, they need to carry out research and development on their products and gather new ideas from local and nonlocal networks. In comparison, as tacit knowledge is passed down through the generations in traditional cultural industries, their internal social capital might be built through a process of

maintaining the firm's internal resources and values, for example by establishing trust among employees and consumers. As traditional cultural industries utilise communal creativity and tradition, they might not extensively seek out new ideas but rather focus on highlighting traditional values. Given these differences, internal social capital might be a more important determinant of firm productivity in 'real' creative industries than in traditional cultural industries.

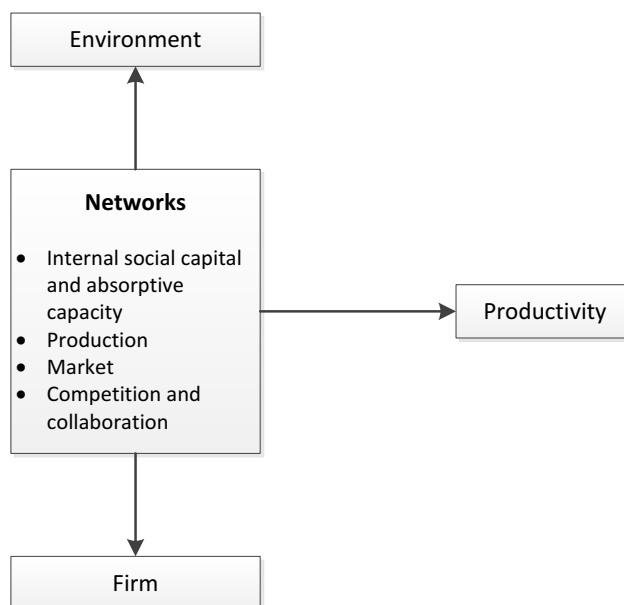
Second, if one considers suppliers and consumers to be the main components of any business, then the characteristics of production- and market-related networks could be the same or different between both types of industries. Both industries need to maintain and develop their supplier-buyer relationships in order to enhance their productivity. However, as creative industries require a combination of new ideas, or designs, one might expect them to be more active in looking for new suppliers and production methods.

Third, considering how and where they are spatially concentrated, the environment-related networks may differ between creative industries and traditional cultural industries. Creative industries are generally located in a relatively diverse urban economy, whereas traditional cultural industries are often concentrated in smaller urban regions and rural areas (Fahmi et al., 2016). Often, traditional cultural industries are clustered in kampongs (community villages), where crafting activities have become the main source of living for the inhabitants and also the source of local identities. As such, while it is plausible that creative industries would benefit from Jacobs externalities, these seem less likely to be relevant for traditional cultural industries.

3 Methodology

To examine the extent to which, and the mechanisms through which, networks and social capital on different levels influence the productivity of creative industries, this study employs multilevel modelling and qualitative methods. As illustrated in Figure 1, the multilevel analysis looks into the extent to which the characteristics of firms and their environment, as well as the relationships between them, are associated with firm productivity. However, this analysis does not expose the mechanisms through which firms benefit from networking opportunities in the environment. Subsequently, a qualitative analysis is performed to clarify the relationships revealed by the multilevel analysis, specifically by examining network characteristics and practices on each level. Further, given the different business and networking characteristics of creative industries and of traditional cultural industries, separate analyses are conducted for each type of industry.

Figure 1 Analytical framework



3.1 Multilevel model

The multilevel analysis simultaneously estimates the influence of firm characteristics and of the environment on productivity. This multilevel analysis draws on data available from the 2006 Economic Census published by BPS-Statistics Indonesia. These data provide information about firm characteristics observed every ten years. This analysis focusses on Java Island, the heart of economic development, considering the data for regions beyond this island as rather unreliable. Ideally, growth measures (e.g., revenue growth or employment growth) would be employed to represent firm productivity but, unfortunately, the data are not in panel form, and so it is not possible to deduce firm growth. Given the information available, the average annual turnover per employee is employed as the dependent variable. A potential concern with using this as the dependent variable is that the capital intensity of a firm is not reflected well, an aspect which again cannot be measured due to the limited data. However, capital intensity is not seen as a key determinant of firm productivity in either creative industries or traditional cultural industries as, in both, firms focus on developing symbolic meanings (e.g., designs, contents, motifs) and the manufacturing or engineering processes are often outsourced.

The explanatory variables come from two levels: the firm level and the regional level (i.e. the environment). Firm level variables, namely firm size (the number of employees) and firm age, are employed to reflect the absorptive capacity, a choice again constrained by the limited data. Squared values of these variables are also included in the analysis to allow for potential nonlinear associations with firm productivity. One would expect that the larger the firm size, the broader the knowledge accumulated by its employees through their various ideas and experiences. In a similar vein, the older the firm, the greater the knowledge accumulated over time from its environment.

In addition, region-level variables are employed to represent social capital and networking potential in the environment. First, the location quotient (LQ), for creative industries and for traditional cultural industries, is used to represent the concentration of similar economic activities in which potential interactions could occur in the form of competition and/or collaboration. The second variable is related variety, that is, the weighted sum of the entropy index measured at the five-digit level within each two-digit class of KBLI codes. As Frenken, van Oort and Verburg (2007: 687) explain, the related variety represents the diverse industry mix in an urbanised locality that ‘improves the opportunities to interact, copy, modify, and recombine ideas, practices and technologies across industries giving rise to Jacobs externalities’. As such, related variety is expected to reflect the opportunities for developing links or relationships with a range of economic activities, including supplier-buyer relationships (production- and market-related networks) as well as collaboration and exchange of knowledge and ideas. Third, to represent environment-related networks, i.e. the regional climate and culture for socialising and collaboration, regional social capital indicators (‘socialising’, ‘friendship’ and ‘helping’¹) available from the 2010 Social Capital Stock data are included. The ‘socialising’ variable reflects the habit of living socially and being involved in the society, such as ‘silaturahmi’ (gathering). ‘Friendship’ represents the perceived friendliness and the ease of making friends, while ‘helping’ reflects the habit of helping one another in terms of financial support. These indicators are measured on the basis of public opinion and thus reflect the social capital of the civil society at the regional (municipal and district) level. Although, as Westlund and Adam (2010) found, the social capital of civil society represents only a small part of social networks and interactions, it still has the potential to induce cooperation between economic actors in a competitive environment. As such, it can have an impact on economic processes and outcomes. Given that the social capital indicators are measured on the macro-level, and that networking forms between firms might be more crucial, cross-level interactions between firm and regional social capital variables are employed to better reflect the networking characteristics and culture of the interactions among firms.

3.2 Qualitative analysis

The qualitative analysis aims to uncover the network mechanisms behind the relationships identified in the multilevel analysis, concerning how firms and the environment relate to each other, and how this then influences productivity. Specifically, how do firms use and benefit from opportunities available in the environment (including production- and market-related channels as well as competition and collaboration), and internalise the external benefits for their own creative processes? In this analysis, productivity is defined as the creation of new values that are reflected in products. The fashion subsector is chosen as the focus in this analysis because it is one of the most important creative industries in Indonesia due to its potentially large consumer base. Another advantage is that this also reflects both

¹ In the original dataset, ‘socialising’ is referred to as ‘grouping’ (kelompok), and ‘helping’ as ‘networking’ (jejaring).

‘traditional’ and ‘innovative’ creative industries: some firms attempt to create new designs, while other firms just produce apparel without developing new designs or motifs. Two cases are examined. The first case study is conducted in Bandung, where relatively ‘modern’ creative fashion firms, popularly known as ‘distro’, are located. The second case study is performed in Surakarta, representing ‘traditional’ cultural industries, specifically in Kampong Laweyan, a batik cluster where a revitalisation project took place in the late 2000s, aiming to regenerate traditional batik production activities by transforming this cluster into a tourist attraction. In total, interviews were conducted with 11 firms in Bandung and 10 firms in Surakarta, in which issues related to networking mechanisms on each level were investigated (see Appendix C). Key informants were first identified using the information available from firm associations, news and social media sources, and then based on recommendations from other interviewees (the snowballing technique). In addition, local government officials and university actors were also interviewed for additional information and triangulation purposes.

4 Multilevel analysis

Table 1 presents the results of the multilevel analysis that estimated the extent to which firm characteristics and the environment explain the productivity of creative industries. Following the conceptual argument outlined earlier, analytical models are developed separately for creative industries and for traditional cultural industries since these have distinct characteristics. The multilevel analysis is performed by first running a model including only the intercept, and then gradually adding firm level and regional level variables (Models 1, 2 and 3). A random slope model was chosen to allow for varying effects of firm level characteristics across regions. In general, as more variables are added, the model fit improves, as indicated in the AIC, BIC and log likelihood statistics. Given the significant coefficients found in Models 2 and 3, cross-level interactions, between firm level variables and a regional social capital measure (friendship), are added to reflect the interaction between the firm and the environment (Models 4 and 5). In general, the results show that firm characteristics and the environment both influence the productivity of firms both in creative industries and in traditional cultural industries. Nevertheless, there are differences, most notably that creative industries benefit from co-locating with similar industries whereas traditional cultural industries do not. This potentially reflects the characteristic of the latter of being strongly attached to tradition, such that co-locating with similar activities does not generate new knowledge or the creation of innovative values.

Table 1 Multilevel model

Dependent: Turnover per worker (ln)	Model 1		Model 2		Model 3		Model 4		Model 5	
	(A) Creative industries	(B) Traditional cultural industries	(A) Creative industries	(B) Traditional cultural industries	(A) Creative industries	(B) Traditional cultural industries	(A) Creative industries	(B) Traditional cultural industries	(A) Creative industries	(B) Traditional cultural industries
Fixed effects	B(SE)	B(SE)	B(SE)	B(SE)	B(SE)	B(SE)	B(SE)	B(SE)	B(SE)	B(SE)
Firm level										
Age	0.463 (0.02)***	-0.195 (0.01)***	0.506 (0.03)***	-0.085 (0.03)**	0.509 (0.03)***	-0.084 (0.03)**	0.507 (0.03)***	-0.084 (0.03)**	0.509 (0.03)***	-0.083 (0.03)**
Age ²	-0.259 (0.02)***	-0.02 (0.01)***	-0.316 (0.03)***	-0.018 (0.01)***	-0.314 (0.03)***	-0.018 (0.01)***	-0.318 (0.03)***	-0.018 (0.03)***	-0.318 (0.03)***	-0.018 (0.01)***
Size	0.411 (0.03)***	0.135 (0.00)***	0.537 (0.04)***	1.546 (0.40)***	0.557 (0.04)***	1.544 (0.40)***	0.546 (0.04)***	1.547 (0.40)***	0.567 (0.04)***	1.545 (0.40)***
Size ²	-0.261 (0.03)***	-0.107 (0.00)***	-0.271 (0.06)***	-0.06 (0.01)***	-0.247 (0.06)***	-0.06 (0.01)***	-0.306 (0.06)***	-0.06 (0.01)***	-0.287 (0.06)***	-0.06 (0.01)***
Regional level										
LQ creative or traditional cultural industries			0.232 (0.05)***	-0.499 (0.13)***			0.235 (0.05)***	-0.498 (0.13)***		
Related variety					0.113 (0.06)*	0.61 (0.13)***			0.122 (0.06)*	0.608 (0.13)***
Friendship			-0.148 (0.07)**	-0.305 (0.15)**	-0.134 (0.07)*	-0.27 (0.15)*	-0.167 (0.07)**	-0.456 (0.16)***	-0.158 (0.07)**	-0.407 (0.15)**
Socialising			0.021 (0.08)	0.027 (0.17)	0.046 (0.08)	0.139 (0.16)	0.018 (0.08)	0.029 (0.17)	0.039 (0.08)	0.140 (0.16)
Helping			-0.061 (0.07)	-0.130 (0.15)	-0.061 (0.08)	-0.281 (0.15)*	-0.059 (0.07)	-0.13 (0.15)	-0.059 (0.08)	-0.281 (0.15)*
Cross-level interactions										
Age × Friendship							0.002 (0.05)	-0.197 (0.06)***	0.002 (0.05)	-0.197 (0.06)***
Size × Friendship							0.119 (0.06)	1.049 (0.80)	0.119 (0.06)**	1.052 (0.80)
Constant	15.807 (0.03)***	15.04 (0.08)***	15.802	15.041 (0.07)***	15.803 (0.03)***	15.041 (0.07)***	15.802 (0.03)***	15.041 (0.07)***	15.803 (0.03)***	15.041 (0.07)***
Random effects										
	σ^2	σ^2	σ^2	σ^2	σ^2	σ^2	σ^2	σ^2	σ^2	σ^2
Intercept regional level σ^2	0.118	0.687	0.089	0.542	0.106	0.505	0.088	0.536	0.105	0.505
Age σ^2			0.017	0.112	0.017	0.111	0.016	0.103	0.016	0.111
Size σ^2			0.025	17.923	0.022	17.917	0.016	17.639	0.014	17.917
Residual σ^2	1.591	1.331	1.584	1.303	1.584	1.303	1.584	1.303	1.584	1.303
No of observations	29260	764176	29260	764176	29260	764176	29260	764176	29260	764176
No of regions	114	114	114	114	114	114	114	114	114	114
AIC	96935.7	2387988	96866.2	2372833	96878.6	2372828	96867.5	2372827	96879.4	2372828
BIC	96993.7	2388068	96998.7	2373018	97011.1	2373013	97016.6	2373035	97028.5	2373013
Log likelihood	-48460.9	-1193987	-48417.1	-1186401	-48423.3	-1186398	-48415.7	-1186396	-48421.7	-1186398

Note: Firm-level variables were group-mean centred, while regional-level variables and cross-level interactions were grand-mean centred. Models 2-5 use a random slope.

*** significant at 1%, ** significant at 5%, * significant at 10%

4.1 Firm characteristics

Internal firm characteristics, and specifically their absorptive capacity, are associated with the productivity of both creative and traditional cultural firms. As shown in Model 1, and consistently confirmed by the other models, firm size is positively associated with productivity in both creative and traditional cultural industries: the larger the firm, the higher the productivity. Whereas firm age is positively associated with productivity in the sample of creative firms, it is negatively associated with that of traditional cultural firms. This perhaps suggests that knowledge is accumulated over time in creative industries, and that this boosts productivity. This is not the case with the traditional cultural industries, possibly because the knowledge in these industries is unchanging, and this has a negative association with productivity. The squared values of both firm size and firm age are negatively associated with the productivity of both sorts of firms, indicating that the associations between these firm characteristics and productivity are nonlinear.

To sum up, and in line with other studies (e.g., van Oort et al., 2012), the absorptive capacity, as represented by firm size and age, of creative and traditional cultural firms, is associated with productivity. The fact that the slopes differed in the models indicates that the impacts of firm size and age varied across regions. Although to some extent these firm-level characteristics could reflect the networking forms and the ability to accumulate knowledge, they are not direct indicators of networking abilities and behaviours. The mechanisms through which firms internally manage knowledge and improve their productivity still need to be uncovered, and this is achieved through the qualitative analysis presented in the next section.

4.2 Environment characteristics

Generally speaking, environmental characteristics, including social capital and networking opportunities, explain the productivity of creative and traditional cultural firms. In this analytical model, the location quotient and the related variety are included separately (for creative and for traditional cultural industries) because both variables are strongly correlated, which generates multicollinearity problems when incorporated together (see Appendices A and B). As Models 2 and 3 shown in Table 5.1, there are differences between the two types of industries.

Related variety, which reflects the opportunities to develop relationships with various types of activities, has a similar positive influence on the productivity of both creative and traditional cultural firms (although for creative industries it is only significant at the 10% level). This indicates that a diverse local economy has the potential to deliver opportunities for both types of industries to build supplier-buyer relationships as well as to gather information and ideas about various aspects, such as specialist supplies, market information and ‘buzz’ ideas (see Frenken et al., 2007). Meanwhile, the influence of localisation economies differs between the two industry types. The location quotient is positively associated with the productivity of creative industries, but negatively associated with that of traditional cultural industries. A possible explanation is that creative firms industries benefit from co-locating with other firms in the same industry because they can develop inter-firm relationships to collaborate and

exchange new ideas, whereas this is not the case for traditional cultural industries. The latter differ in that they tend to focus on preserving traditional values, and so proximity to other firms in the same industry does not lead to the development and spread of new ideas and innovation (see also Fahmi and Koster, 2015; Scott, 2006).

Further, of the measures of regional capital incorporated in the models, ‘socialising’ is negatively associated with the productivity of traditional cultural firms (albeit only at the 10% level) but not with that of creative industries. ‘Helping’ is not statistically significant in all the models. ‘Friendship’ is negatively associated with the productivity of both creative and traditional cultural firms. That is, being in a friendly region would appear to lower productivity. A possible explanation is that good social relationships strengthen ties, and that this leads to a reduction in economic competition with associated negative externalities (Iyer et al., 2005; Malecki, 2012; Putnam et al., 1994).

To try to better understand this issue, and to reflect on networking characteristics at the micro-level, cross-level interactions are included. As seen in the results for Models 4 and 5 in Table 5.1, ‘Age × Friendship’ is negatively associated with the productivity of traditional cultural industries and not significantly related to that of creative industries. This indicates that, in less friendly regions, the productivity of traditional cultural firms tends to decrease over time whereas, in more friendly regions, the productivity of these firms appears to increase with age. This suggests that, in line with their definitional characteristics, traditional cultural industries rely heavily on tacit knowledge passed down through generations, providing a need only to maintain social relationships to protect such knowledge. This process is not relevant for creative industries that, in contrast, need to continuously search for new ideas and innovate.

At the same time, the variable ‘Size × Friendship’ is positive and significant for creative industries (albeit only at the 10% level in Model 4 and 5% in Model 5). This indicates that, in friendly regions, the productivity of creative firms seems to increase with size, albeit not very significantly. A possible explanation is that friendship not only boosts knowledge, which is useful for the firm, but also carries negative externalities, and that firms with a large number of workers accumulate larger negative externalities from the environment.

To sum up, social capital and networking opportunities present at the regional level do partly explain the productivity of both creative and traditional cultural firms. A diversified economy provides opportunities for both types of industries to build relationships with other economic activities. However, only creative industries appear to benefit from being close to similar businesses, whom they might collaborate, and possibly compete, and thereby stimulate each other. Regional social capital has been shown to have negative externalities for firm productivity, indicating that social relationships are not always good for economic productivity. However, the mechanism through which firms interact with the environment and how this influences productivity remains unclear. This is clarified through a qualitative analysis presented in the section below.

5 Qualitative analysis

In the previous analysis, it was shown that networking, both internal and external to a firm, is associated with productivity. However, the multilevel analysis left questions as to the mechanisms through which networks and social capital influence firm productivity. In this section, this issue is now addressed by examining case studies in clothing firms in Bandung, representing ‘creative industries’, and batik businesses in Kampong Laweyan, Surakarta, representing ‘traditional cultural industries’. Below, an overview of each case is presented, followed by the analysis of the mechanisms at play in each type of network: those internal to the firm plus, production-, market- and environment-related networks.

5.1 Overview of the Bandung case

‘Creative’ clothing firms in Bandung constitute the embryonic creative industries in Indonesia. They were mostly established by young entrepreneurs who wished to develop local brands as alternatives to foreign products that had become far more expensive following the 1998 monetary crisis. They produce apparel that primarily appeals to young, domestic customers. In general, the firms involved in this study were small or medium-sized (SMEs). Their main activities mostly comprise research and development linked to designs. The main production processes, such as sewing and printing, are subcontracted out. In practice, these creative firms set a specific standard for quality, and also consider cost and delivery when negotiating with subcontractors. Two methods are used in seeking and contracting suppliers: first, a firm will look for suppliers itself, and, second, suppliers will approach a firm with an offer. According to the interviewees, the former mechanism is usually used in the first instance but, after the brand becomes known, *‘there will be more suppliers coming here, to our office, and offering their products (or services)’*.

These creative firms usually sell their products in distribution outlets (‘distro’), a term first coined by indie music creators to refer to the place where they sell their cassettes and merchandise. The use of the term ‘distro’ by the clothing industry in Bandung sets out to present a strong connection between clothing firms and music identities, many of which have become a major source of inspiration for their products and designs. Distro is essentially a consignment mechanism in which products are deposited in an outlet, and any eventual profit shared, usually 30-35% for the distro and 65-70% for the producer. Such a mechanism is built on the basis of trust, which has to be continuously maintained. Some firms have become sufficiently established to open their own distros (or stores), to avoid profit-sharing, but they then have to manage their own utility and running costs. Today, start-ups and relatively young firms also distribute their products through so-called ‘concept stores’ that sell various brands, which share certain characteristics or identities, to present an image selected by the owners. Further, due to the increasing demand and growing production, clothing firms now sell their products to wholesalers, when the products will be paid for in advance but at a discounted price. This latter mechanism is usually adopted with distributors located far from Bandung, especially those outside Java and abroad.

In addition to these supplier-buyer linkages, the clothing firms have relationships with other parties. First, they usually have business and social relationships with other firms that have similar, or related, types of businesses. There are also a number of business associations that

generally function as event organisers for festivals, such as the ‘Kreatif Independent Clothing Kommunity’ (KICK). Second, some firms also have ties with non-commercial associations, such as music, sport and other youth communities, particularly with ones who are their potential consumers or who inspire their products directly or indirectly.

5.2 Overview of the Surakarta case

Kampong Laweyan is one of the oldest batik clusters in Surakarta. It is a typical example of economic activities based on cultural creativity in Indonesia, and one that is promoted as a creative industry by the government. In general, these batik businesses have been handed down in a hereditary manner. Tacit knowledge has been shared across generations and has thus been locally embedded in this kampong for many years. The batik industry in Indonesia fluctuates, and many firms closed down due to the 1998 crisis. In 2004, some of the surviving business owners had an initiative to revitalise the kampong and transform it into a tourist destination. They established *Forum Pengembangan Kampung Batik Laweyan* (FPKBL: Forum for the Development of Kampong Batik Laweyan) that acts as a coordinator and knowledge centre in the kampong. Before the establishment of this forum and the revitalisation of the kampong, the batik businessmen in Laweyan did not have formalised communications. They ran their businesses on their own, although they did have some connections with smaller firms. They were not open and, as an interviewee explained, *‘most businessmen in Laweyan were rich people (‘juragan’). They would not open their doors to neighbours. Today, every firm has a gallery or a store, but, in the past, the building was closed and you could not enter it easily. After the establishment of the forum, the social relationships among us have started to be more fluid’*.

Nevertheless, as most businessmen take their business over from their parents, they usually inherit established, both backward and forward, business linkages. Most batik firms in Laweyan, as well as in other kampongs, do not carry out all the production processes themselves. Quite often, a firm will design the motif, which is often reproduced several times, while the process of drawing (*membatik*) on the fabric is usually subcontracted to batik crafters, usually located in villages such as Sukoharjo and Sragen. Once the motif is drawn on the fabric, the firms carry out the colouring process themselves. According to various interviewees, the colouring methods are often unique and constitute the ‘secret recipe’ of each firm. Once manufactured, batik products are distributed through the firm’s own galleries and through wholesalers. As in the Bandung case, this consumer network has been built through seeking out partners and trust-based relationships.

5.3 Internal social capital of firms

Networking capabilities and behaviours reflect the degree to which firms are willing to invest in professional and social relationships in an effort to develop their businesses (Westlund, 2006). During the interviews, several firm owners and managers confirmed the importance of building links and relationships, especially in terms of production and distribution channels. Nevertheless, there are differences between the two cases in terms of perceptions and habits in developing networks, and in internalising knowledge within their firms.

First, the internal social capital of firms is created differently in each case. As an interviewee commented, the first generation clothing firms in Bandung (those founded in the early 2000s) were basically established by ‘trial and error’ in that the founders of these businesses simply wanted to develop affordable local brands as an alternative to the imported fashion products which had become too expensive because of the economic crisis. However, the owners had only limited knowledge on how to manage the business. To overcome this problem, they were strongly motivated to invest in networks to enable ‘learning by doing’. Further, as they had limited financial resources, they had to develop marketing networks, which can be characterised as a consignment system (*distro*). The process of finding potential distributors involved networking activities and the establishment of trust. As such, a networking ability was a key factor in the development of these businesses. Although newer generations of clothing firms in Bandung (from the late 2000s) might not behave the same, they nevertheless perceive the ability to socialise as an important factor. As an interviewee stated, ‘*Bandung is a creative environment; there are a lot of groups, people and information that can be useful to ourselves*’. There is ‘buzz’ information that they will acquire if they are actively involved in the networks. In contrast, the internal social capital of batik businesses in Laweyan is inherited through the generations. Today’s owners of batik businesses basically continue from their parents, and inherit tacit knowledge as well as links from the previous generation. As various interviewees noted, it is important for them to maintain these networks, and they ‘*would not break the trust that has been built so far*’.

Second, because the internal social capital of the firms is built differently in the two cases, the knowledge and other externalities are internalised in different ways in their production systems. The owners and managers of clothing firms in Bandung perceive that it is important to look for new ideas and inspiration, which might be available in the surroundings as well as from competitors. Knowledge from the external environment is internalised through internal meetings and sharing among employees, an activity that is often done on a regular basis. In comparison, batik businesses in Laweyan rely much more on tacit knowledge being shared by previous generation as well as traditional values. Consequently, most firm owners in the Laweyan case study put little focus on searching for inspiration and new ideas, as an interviewee explained, ‘*a certain batik motif has its prayers, its hopes. So, if the motif is changed, the [identity] changes as well. But, if only the colour is changed, while the motif remains, the identity continues*’.

Nevertheless, several of the interviewees from the batik producers were aware of the importance of looking for new ideas. However, the creative process was still seen as mostly internal, and that ‘*design is a secret recipe that nobody else should know*’.

From this qualitative analysis, and in line with the results of the multilevel analysis, it can be concluded that the absorptive capacity and the internal social capital of firms determine how the creative processes are carried out, and that these processes then partly determine the performance of these firms. The creative clothing firms in Bandung perceive the importance of socialising and of obtaining knowledge from the external environment in order to develop new ideas and sustain their businesses. In general, these firms also apply mechanisms to internalise this knowledge in their creative processes. In contrast, most batik businesses in Laweyan tend

to see networking as only important for marketing, with little attention given to the generation of new ideas and value.

5.4 Production-related networks

The assessment of the interviews shows that supplier networks are important to firm productivity in both cases. In general, production-related networks, both in clothing firms in Bandung and in batik businesses in Surakarta, are built on the basis of trust and repeated transactions. It is worth noting that, in Bandung, information regarding specialist suppliers is often received from specific links and relations, such as other firms in the same sector as well as personal channels such as friends. Various interviewees also acknowledged the advantage of being located in Bandung, where the suppliers and components needed for production processes are available and, as the interviewees mentioned, *'they offer good quality'*. The relationship between clothing firms and these suppliers also seems to encourage mutual learning. In this instance, suppliers proactively identify the characteristics of the products of their clients (the clothing firms) and openly offer ideas on making the products. This information can be about new types of materials and methods, current trends as well as hints about what other clothing firms are currently producing.

The findings from the Laweyan case study have a similar tone, in that suppliers provide new information, especially in terms of colouring materials and methods. Various interviewees mentioned that colouring methods can constitute an innovation for their businesses, and so they perform this process themselves. Other than this, for the drawing component, they rely on crafters, mostly from Sragen, with whom they have been working together for a long time. However, this element of the process does not seem to lead to innovation or the creation of new ideas.

To sum up, and in line with theory (Lipparini and Sobrero, 1994), suppliers are able to influence creative processes directly by providing information and new ideas about specific supplies and methods. In our study, the suppliers seemed to be more aggressively seeking innovation than the creative firms, suggesting that creative industries do not always take the lead in innovation in the regional economies.

5.5 Market-related networks

It would appear that market-related networks are the most important element of business development in both situations. In the Bandung case, marketing networks are built on the basis of trust and ties. Clothing firms in Bandung were generally established in response to the 1998 economic crisis, and the founders had limited financial resources but strong motivation to promote their businesses. To overcome these financial constraints, these business owners had to use and develop their relationships, which are embodied in the consignment relationships (*distro*) they have established. As an interviewee said, *'the thinking behind the (distro) consignment arrangement is that our business cannot stand alone. Our business would not have worked without the help of these people'*. As such, various interviewees commented that it is important to keep in contact with these consignees and build trust with them, even though *'recently wholesales outweigh the sales from consignments'*. In addition, market information is

crucial for gaining access to new consumers, including wholesalers. This market information is often gained through events and socialising. Events, especially trading expositions, are considered important for younger firms to promote their brands and gain new customers. New consumers are also attracted through social media and seeking endorsements from celebrities or bloggers. Some interviewees mentioned that they often gain access to market information from customers, distributors and friends.

In the Laweyan situation, the current business owners have generally inherited market networks from previous generations and they see it as important to sustain trust with these customers. As in the Bandung case, information about potential buyers is spread through ‘word of mouth’ and by consumers who recommend the products to their friends and relatives.

In conclusion, market-related networks are crucial to the survival and productivity of creative industries. In this regard, in both cases, it was seen that trust building is necessary to maintain existing market networks. More importantly, up-to-date market information is needed to increase market share. Related to this, in many cases, friendship helps in the process of ‘spreading the word’ and advertising the product.

5.6 Environment-related networks

Environment-related networks are crucial since these are the places where creative industries are embedded and obtain information and knowledge. In the Bandung case, various interviewees indicated that the city of Bandung provides a ‘buzz’ environment where they can monitor information and knowledge that is important for their business development ‘by just hanging out around the city’. As part of this, shopping malls as well as the education and training centres for artists and designers facilitate the circulation of knowledge and ideas, which can easily be captured by these clothing firms’ owners and managers. In addition, some interviewees described the benefits of using social media, such as Instagram and Pinterest, through which they make reference to and monitor global fashion trends, and react by modifying their own products. Conversely, the Laweyan case is situated in a different environment, one in which Javanese culture is the main source of ideas in the development of their products. As the firm owners are familiar with the traditional values used in batik, they do not seek a ‘buzz’ environment, as in Bandung, to find ideas for developing new motifs.

Further, the interactions between these firms and their fellow businesses, as well as between them and other types of economic actors, had different characteristics in the two cases. In the Bandung case, the clustering of clothing firms provides opportunities for socialising and monitoring one another. Various interviewees mentioned that, as they are located close by, they could easily observe the characteristics and styles of their competitors. Nevertheless, they not only compete with each other, they also interact organically and share information and ideas about the development of their businesses. As an interviewee explained, ‘*we share information about ... good and bad buyers... we recommend our fellows to avoid the bad ones*’. Further, some interviewees stated that, as they are co-located, they can meet up and socialise informally, usually when gathering at events or just hanging out in places such as cafés. Social ties between them have proven to be useful, as an interviewee mentioned, ‘*with a good relationship they are open about what makes them successful and how they cope with various problems*’. Notably,

KICK, the association of clothing firms in Bandung, was also developed as an outcome of the good relationships between pioneering clothing firm owners. However, friendship and strong ties between these firm owners often lead to undesirable results. These social relationships are stratified, in that firm owners group according to social status. In many cases, this has resulted in overly strong ties that have not facilitated the development of businesses, as *'the firm owners are busy with social activities with their friends'*. In some of the worst cases, firms have closed down because the owners were no longer focused on developing their businesses. Some interviewees also mentioned that the expos, such as KickFest, organised by associations have recently become *'just clearance sale events, unlike in the past when events like these were used to introduce our products, our identity'*. As such, although interactions can provide useful market information, some firm owners avoid having overly strong ties with fellow clothing firms, as well as with industry associations.

In comparison, in the Laweyan case, Javanese socio-cultural values appear to strongly influence inter-firm relationships. Solidarity is the key feature of relationships between these batik firms. As an interviewee explained, *'if there are people coming and looking for specific products that we do not have, we will refer them to other shops. [...] we help each other here.'* Although such Javanese societal values are strong, it does not mean that the firms in the kampong do not compete with each other. Nevertheless, competition is 'controlled' by social norms: each firm focuses on a certain motif or identity, and others will not produce identical products. According to interviewees, although inter-firm relationships in this cluster seem to be quite harmonious, the batik businessmen are strongly differentiated into groups that are not open with each other. Business interactions, such as information sharing and collaborations, are less likely to happen across these groups. To a large extent, this is because creative processes tend to be completely internal and the development of products is confidential.

A difference between the two cases is identified in the characteristics of relationships with various other activities. In Bandung, the clothing firms have strong connections with various communities, notably in music, sport and arts, who help them access market information as well as combine new knowledge. As an interviewee explained, *'we collaborate with these arts communities in many events and projects. [...] In the end, they also endorse our brand in their social media. [...] Also with these 'crowds' we also find something new, fresh, for our ideas'*. Further, there is now an increasing trend of clothing firms collaborating in designing products that combine two brands, such as 'unkl347 x matoa'. An interviewee said, *'this collaboration is good as it refreshes our markets and generates new values. We not only compete with fellow businesses, but also... as you can see... we can collaborate. This collaboration indeed creates new values'*.

To sum up, the environment in which creative and traditional firms are embedded is able to influence their productivity by providing opportunities to find and combine ideas and knowledge. This is possible through the good relationships between the economic actors. While the multilevel analysis shows that social ties tend to decrease productivity, the qualitative analysis shows that, in the Bandung case, the local environment provides both positive and negative externalities that can influence their productivity. Meanwhile, in the Laweyan case, it

seems that social capital features, such as solidarity and kinship, influence the ways in which these people act with each other, but do not affect how they run their businesses.

6 Discussion

The combined results of multilevel and qualitative analyses show that creative industries and traditional cultural industries share similarities as well as differences in terms of networking forms and mechanisms. In elaborating on this issue, it is important to understand the degree to which these distinct characteristics influence their contributions to regional productivity.

Both creative industries and traditional cultural industries, as shown in the qualitative analysis, are focussed on developing and maintaining supplier-buyer relationships. In line with the literature, trust appears to be the most important aspect to be maintained in interactions and repeated transactions (Banks et al., 2000; Karlsson, 2011; Westlund, 2006). However, the two industries have different internal conditions and social capital and, thus, they show different behaviours when it comes to building relationships. The qualitative analysis showed that creative clothing firms in Bandung go beyond simply developing supplier-buyer relationships, while this was sufficient for the batik firms in Laweyan. This reflects the nature of their products in that creative industries need to find new ideas and knowledge, for instance to detect trends, and this requires them to constantly observe and grasp opportunities available in their surroundings. In comparison, traditional cultural industries utilise tradition as their main source of ideas. The owners of these firms are familiar with traditional values and identities, and so are not strongly motivated to find and develop new combinations of values and ideas.

Further, creative and traditional cultural industries benefit differently from environment-related networks. The environment provides various opportunities to develop supplier-buyer relationships as well as ‘buzz’ factors, which could be useful to the development of businesses. Both the multilevel and qualitative analyses indicate that although the opportunities are similarly available in both the regions included, their influence on the productivity of the two industries studied differ. The multilevel analysis shows that creative industries benefit from both localisation economies and urbanisation economies, indicating that inter-firm relationships can motivate creative industries to become more competitive, and that these relationships provide opportunities to collaborate and possibly combine skills and ideas. However, the qualitative analysis demonstrates that localisation can also have negative externalities for creative industries, especially if the interactions between firms do not lead to either healthy competition or a fruitful collaboration. This danger is particularly relevant for traditional cultural industries which, although they are usually clustered, fail to create added values from this clustering.

Related to this, the analysis showed that regional social capital has quite a complex impact on productivity. While the multilevel model shows that friendship is negatively associated with the productivity both of creative industries and of traditional cultural industries, the qualitative analysis shows that the relationship might not be straightforward. Although friendship plays a role in the selection of suppliers and the exploration of new markets, it does not always encourage the creation and combination of new knowledge between firms. Another important

finding, particularly from the multilevel analysis, is that the impact of regional social capital varies according to a firm's characteristics. This in turn strengthens the argument that the internal social capital of a firm remains a decisive factor in influencing the ways in which external knowledge and resources are internalised and processed to produce its products. Although the local environment provides buzz factors and various resources, the absorptive capacity remains crucial in being able to internalise positive externalities and to extract knowledge that would be useful for a business.

7 Conclusions

This paper has investigated the extent to which networking characteristics and practices influence the ways in which creative industries contribute to regional productivity. The environment provides social contexts and culture, externalities as well as opportunities to build relationships and exchange ideas. However, these industries will only benefit from these conditions if they have the ability to capture the opportunities and internalise the positive externalities provided by networks (see also Smit et al., 2015). Traditional cultural industries, which reflect the essence of many creative industries in Indonesia and in other developing countries, illustrate this issue: these industries prioritise highlighting traditional values as selling points, rather than seek innovative ideas, and so do not invest sufficiently to grasp any opportunities for new combinations of ideas. Further, as the findings show that creative industries benefit both from localisation and from urbanisation economies, it can be concluded that they potentially contribute to regional productivity through both competition and collaboration. Being co-located with fellow firms, and with other types of economic activities, can stimulate creative firms to develop their creativity and competitiveness, and also opens up the possibility of collaboration in which they can cross-fertilise fresh ideas, resulting in radical innovation that boosts regional productivity. Again, this will only happen if firms have sufficient ability to be involved in this process. In this regard, policy strategies should be designed such that investments in social capital and networking can be delivered at both the firm and the regional levels. At the firm level, firms could be encouraged to develop their networking and learning capacities. At the regional level, the government can facilitate the nurturing of a climate that stimulates interactions and the exchange of ideas between creative firms and other economic activities.

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Appendix 5A Descriptive overview of variables used in the multilevel analysis

Variable	Creative industries		Traditional cultural industries	
	(N=29,260)		(N=764,176)	
	Mean	Std. Dev.	Mean	Std. Dev.
Turnover (IDR)	2,080,000,000	138,000,000,000	277,000,000	88,000,000,000
No of workers	5.252	27.089	2.710	46.126
Productivity	703,000,000	88,500,000,000	74,400,000	45,400,000,000
Productivity (ln)	15.970	1.346	14.585	1.339
Size (cent)	0.000	0.499	0.000	0.500
Size ² (cent)	0.000	0.499	0.000	0.500
Age (cent)	0.000	0.499	0.000	0.500
Age ² (cent)	0.000	0.499	0.000	0.500
LQ CI or CULT (cent)	0.307	0.716	0.362	0.610
Relvar (cent)	0.237	0.496	-0.190	0.486
Friendship (cent)	-0.146	0.485	0.083	0.487
Socialising (cent)	-0.056	0.486	0.015	0.484
Helping (cent)	0.037	0.444	0.027	0.538

Appendix 5B Correlation tables (multilevel analysis)

For models creative industries

		1	2	3	4	5	6	7	8	9	10
1	Productivity (ln)	1									
2	Size (cent)	0.10	1								
3	Size ² (cent)	0.09	0.92	1							
4	Age (cent)	0.12	0.18	0.13	1						
5	Age ² (cent)	0.08	0.17	0.14	0.90	1					
6	LQ CI (cent)	0.19	0.00	0.00	0.00	0.00	1				
7	Relvar (cent)	0.12	0.00	0.00	0.00	0.00	0.56	1			
8	Friendship (cent)	-0.12	0.00	0.00	0.00	0.00	-0.18	-0.31	1		
9	Socialising (cent)	-0.06	0.00	0.00	0.00	0.00	0.01	-0.17	0.46	1	
10	Helping (cent)	0.01	0.00	0.00	0.00	0.00	0.23	0.22	0.22	0.57	1

For models traditional cultural industries

		1	2	3	4	5	6	7	8	9	10
1	Productivity (ln)	1									
2	Size (cent)	0.06	1								
3	Size ² (cent)	0.03	0.83	1							
4	Age (cent)	-0.07	-0.01	0.00	1						
5	Age ² (cent)	-0.07	-0.01	0.00	0.91	1					
6	LQ CI (cent)	0.02	0.00	0.00	0.00	0.00	1				
7	Relvar (cent)	0.09	0.00	0.00	0.00	0.00	-0.60	1			
8	Friendship (cent)	-0.10	0.00	0.00	0.00	0.00	0.03	-0.14	1		
9	Socialising (cent)	-0.05	0.00	0.00	0.00	0.00	-0.04	-0.09	0.42	1	
10	Helping (cent)	-0.09	0.00	0.00	0.00	0.00	-0.01	0.13	0.35	0.56	1

Appendix 5C List of interviewees

The Bandung case

1. Wadezig, owner
2. NIION, owner
3. Tubagus Fiki Satari of Airplane (owner), KICK (former chief) and BCCF (chief)
4. unkl347, owner
5. spiffyxfreak, owner
6. papersmooth, co-directors (two persons)
7. off, owner
8. Parental Advisory, owner
9. wellborn, owner
10. Ade Andriansyah of Flashy (co-owner) and KICK (current chief)
11. Cosmic, managers (two persons)
12. Disperindag, head of department
13. Bappeda, staff member

The Laweyan case

1. Batik Merak Manis, manager
2. Batik Cempaka, owner
3. FPKBL, board member #1
4. FPKBL, board member #2
5. Batik Putra Laweyan, manager
6. Batik Pando, owner
7. Batik Jufa, owner
8. Batik Gres Tenan, owner
9. Batik Setya Lukisan, owner
10. Batik Mahkota, owner
11. Batik Estu Mulyo, owner
12. Disperindag, head of division
13. Bappeda, head of division
14. Department of Culture and Tourism, head of division