

AGST Working Paper

Series No. 2018-01

February 2018

Family Structure and Spin-offs: A Study on Micro and Small-sized Metal-working Firms in Indonesia, 1980s-2015

Setia Diarta

PhD Student on East Asia Sustainable
Economic Development Studies,
Graduate School of Economics,
Kyoto University, Japan

Takafumi Kurosawa

Professor, Graduate School of
Economics,
Kyoto University, Japan

Business History &
Industry Policy Studies



Asian Platform for Global Sustainability & Transcultural Studies
Kyoto University | Japan Gateway Program

Title	Family Structure and Spin-offs: A Study on Micro and Small-sized Metal-working Firms in Indonesia, 1980s-2015
Author(s)	Diarta, Setia; Kurosawa, Takafumi
Citation	Diarta, Setia & Kurosawa, Takafumi (2018). <i>Family Structure and Spin-offs: A Study on Micro and Small-sized Metal-working Firms in Indonesia, 1980s-2015</i> . (AGST Working Paper Series No. 2018-01). Kyoto: Asian Platform for Global Sustainability & Transcultural Studies.
URL	https://agst.jgp.kyoto-u.ac.jp/workingpaper/1436
Rights	CC BB 4.0
Type	Working Paper

This Working Paper Series has been made possible by the funding provided by Kyoto University "Japan Gateway" Top Global Program and published by the Asian Global Platform for Sustainability and Transcultural Studies (AGST) Project. For more information about the project please visit the web page: <http://agst.jgp.kyoto-u.ac.jp/>

To consult other issues published by the AGST or the guideline for paper submission, please visit the web page: <http://bit.ly/2eS0F10>

Contact:
AGST Editorial Staff
Email: agst.wps@gmail.com

Family Structure and Spin-offs: A Study on Micro and Small-sized Metal-working Firms in Indonesia, 1980s-2015

Setia Diarta^{*} and Takafumi Kurosawa^{**}

Abstract

This study establishes the relationship between family structure and spin-offs in small metal-working firms in Indonesia. It also explores how generational changes influenced the transformation of these firms. It draws on archival sources and semi-structured interview results to examine metal-working small-sized firms in two metal-working clusters in Indonesia, namely Sukabumi and Tegal. The finding shows that the second and third generation family members promoted the spin-offs, and it stimulated the development of cluster for metal-working industry in both regions.

Keywords: family structure; spin-offs; metal-working industry; Indonesia

JEL Classifications: J12, M13, L61; N65

1

^{*} PhD Student on East Asia Sustainable Economic Development Studies
Graduate School of Economics, Kyoto University, Kyoto, Japan
606-8501, Yoshida-Honmachi, Sakyo-Ku, Kyoto
E-mail: [setia.diarta.75a\[at\]st.yoto-u.ac.jp](mailto:setia.diarta.75a@st.yoto-u.ac.jp) (replace [at] with '@')

^{**} Professor, Graduate School of Economics, Kyoto University, Kyoto, Japan.

1. Introduction

Many family firms are dominantly established by entrepreneurs who have worked for their family members' (fathers or grandfathers) firms. These firms have appeared in the form of small, medium, and large firms. There were many studies on family firms and have significantly contributed to employment, income generation, wealth accumulation (Colli & Rose, 2008), gross domestic product (GDP) (Bjuggren et al., 2012), and innovation (Zahra, 2005). For instance, between 65 and 90 percent of all registered companies in Latin America are family firms; meanwhile, in the United States, it reaches 95 percent. They are not only dominant but also important for national economies. Family firms generate between 35 and 65 percent of the gross national product (GNP) among the member states of the European Union (Bjuggren et al., 2012).

Most family firms are founded from micro-sized (1–9 employees) and small-sized (10–49 employees). The Austrian Institute for SME Research stated that more than 90 percent family firms in selected countries in Europe are micro- and small-sized (Mandl, 2008). For instance, in Finland, Mandl showed that about 86 percent of firms have less than 10 employees. A very similar result is found for Lithuania and the Netherlands, where more than 90 percent are micro and small-sized firms.

Micro- and small-sized family firms are unique in their own form, as they have certain characteristics and resources that are driven by the involvement of a family in either ownership or management of these firms. They try to seek multigenerational success (Habbershon and Williams, 1999). Some entrepreneurs encourage their successors to become independent, but other entrepreneurs, which are seemingly more often, will encourage them to work together and stay with their original firms. Successors' responses are different: some still work in parents' firm, while others create a new independent firm, separating from their parents' firm. Such practices are prevalent where a large number of entrepreneurs are raised in families that own or have owned businesses before (Fairlie and Robb, 2007). This process leads to a spin-off.

A spin-off is defined when a new firm is formed from a university research group, or an employee leaves his or her company to start a new firm, or a firm is split up into independent parts (Wallin, 2012). This study defines spin-offs as transfer of 'rights' from the previous owner/employer to a new firm. The rights can be in the form of physical assets or ownership. Spin-offs are also caused by family members because the firm which is established and genealogically related with spin-offs can develop diverse knowledge and skills. For instance, Firm A (as initiator), a metal-working industry had core knowledge in forging and metal forming process, the next generation initiates a spin-off Firm B, a metal-machining process, that is, the production process by using a machine tool.

The objective of this study is to discuss the influence of family structure on spin-offs. It tries to answer the research question on how the family structure promotes the spin-offs, especially in local communities (indigenous). There are two ethnic family firms in the metal-working industry in Indonesia, namely the indigenous ethnic and Chinese ethnic. Indigenous ethnic were very dominant in terms of the number of firms compared to Chinese ethnics. However, such dominance exists only in micro-small firms, but not in medium-large firms. Furthermore, this study hypothesises that family structure is one of the factors that play an important role in increasing the number of firms in Indonesia.

Some studies on family system and spin-offs, especially for large firms, are mostly conducted in industrialised countries, such as the United States (Scranton, 1993), Italy (Colli and Larsson, 2014), and Japan (Rose and Ito, 2005). It is also important to know the relationship between family structure and spin-offs in newly industrialised economies, such as Indonesia. Spin-offs of small family firms are quite common in Indonesia, especially for micro and small firms that are located in rural areas. A spin-off is an important approach for family survivability and conflict avoidance among family members. The existence of multiplicity of family types such as Chinese and indigenous entrepreneurs have brought diverse paths for firm development. At a glance, these two family types look Similar in terms of ownership and management by a single family, the involvement of a family member in important position,

successor, etc. However, visible differences occur in their development. The Chinese family type tends to make their firms bigger and keep the family members in the firm. Meanwhile, most of the indigenous entrepreneurs retain micro- and small-sized firms, and they direct their next generation to establish their own firms. Because micro and small firms are important for economic growth in Indonesia (Tambunan, 2008), to understand how the family structure promotes the formation of new firms is an interesting topic to be discussed.

The International Monetary Fund (IMF) stated that Indonesia, along with Brazil, China, Mexico, and Turkey, is a newly industrialised economy (Boddin, 2016). The Indonesian industry, according to the GDP percentage distribution, is dominated by food, beverage, and tobacco industries; the metal-working industry; and fertiliser and chemical industries.¹ Among these three industries, the metal-working industry showed a strong relationship between small firms and large firms. The finding indicated that there is a positive role of subcontracting ties between large firms and small firms (Hayashi, 2002). It showed that subcontracting ties can increase productivity in small metal-working firms. Therefore, it is possible to hypothesise that small family firms in the metal-working industry have a positive growth, with the potential for discussion.

This paper analyses a long-term dynamics of small-sized family firms by focusing on the period between 1980 and 2015. We divide this period into two: (i) 1980–2000 and (ii) 2001–2015. These periods consider the dynamism of the metal-working industry in terms of the number of firms. The year of establishment or the year of ownership transfer is the main indicator. The year of firms' establishment or ownership transfer showed that there are two periods of development: (i) founder period, 1980–2000 and (ii) successor period, 2001–2015.

This study focuses on two industrial clusters of the metal-working industry in Indonesia: Sukabumi in West Java and Tegal in Central Java. These two regions are important industrial clusters among five clusters; the rest are Bandung in West Java, Ceper in Central Java,

¹ Statistics Indonesia, <https://www.bps.go.id/linkTabelStatistik/view/id/1207>.

and Pasuruan in East Java. First, Tegal is a port city where the metal-working industries exist due to the need for spare parts for ship engines and sugar mills. Second, Sukabumi is known as a producer of agriculture tools, household appliances, and souvenirs from metal. Recently, Sukabumi and Tegal have transformed into industrial clusters that support the automobile industry in Indonesia.

This study is conducted by observing various data sources, such as government reports; entrepreneur profiles issued by the Astra foundation, which is an association founded by local business group, Astra International; and semi-structured interviews with the owners of family firms.

The remainder of the paper is structured as follows. First, the concept of family structure and spin-offs is reviewed. Second, the small family firms in Sukabumi and Tegal are discussed. Third, the historical background of family firms is presented. Fourth, the generational changes and firms' transformation are described. Finally, the implications of the study results are provided.

2. Study on family firms and spin-off

Here, We start with the basic terminology of family and family firms. Among various family types, families examined by this study are extended family or consanguine family where each member shares the lineage with the other member. This type of family is dominant in Sukabumi and Tegal. In general, a family firm means a firm where a single family holds ownership and controls management. The first generation of firms in this industrial cluster are established by founders who did not have family background in metal-working industries. For continuation of business activities of those families, there were two pattern of succession, namely; (1) the family member may establish new firm, and (2) a family member who succeed his father/grandfather's firm. In both cases, founders of those new firms and successors of the existing firms can be named as 'family firm born entrepreneur'.

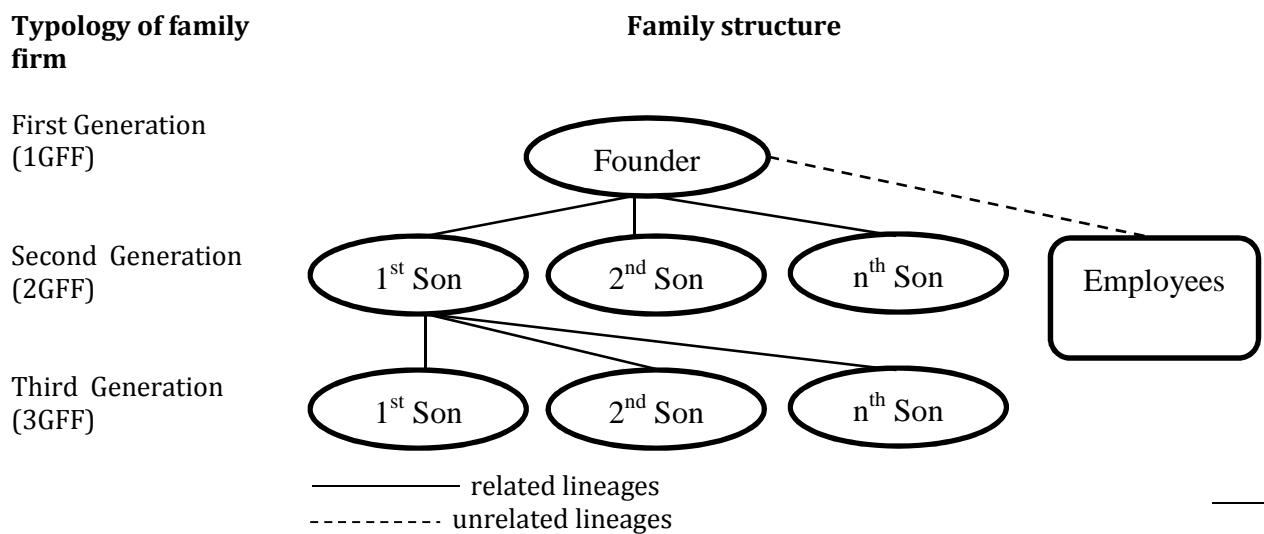
Studies on family business or family firms have grown tremendously since the 1950s. A few theorists, such as Christensen (1953), Donnelley (1964), and Levinson (1971), explored on what makes a family firm, succession, or leads to intra-family conflict. In addition, Gersick et al. (1997) proposed a model for the stages of family firm growth. Furthermore, Colli and Rose (2008) studied the development of family firms, starting from case studies, expanding to other areas of professional corporate management, intergenerational conflicts, succession, management, entrepreneurship, and organisations. Their study is more strongly related to succession, which was defined as a gradual transfer of control from one generation to the next generation. Gradual transfers are achieved from every stage of firm's development, that is, emergent, segmented, and disintegration. The development model is adapted from Wong (1985). In the emergent phase, the founders play a leading role to make a full-fledged firm by managing all firm activities. The segmented phase involves family members in firm activities. Then, the firm spin-off begins from the disintegrative phase.

The present study examines *family structures* and business units to explore how *generational change* affects a family firm. Figure 1 shows the relationship between each family member and type of firm that they own and manage. This paper classifies family firms according not only to the involvement of family in the ownership or management but also to the family background of the founder of those firms. Here, the first generation family firms (1GFFs) are firms founded by founder without family background in the relevant industry. Their sons are known as entrepreneur of the second-generation family firms (2GFFs), and their grandsons are known as entrepreneur of third-generation family firms (3GFFs). 1GFFs, 2GFFs, and 3GFFs are independent firms where each firm does not have an ownership relation.

The 2GFFs and 3GFFs show the firm succession through family inheritance. Three types of succession exist in this regions: (1) ownership transfer, (2) family assistance, and (3) a combination between ownership transfer and inheritance. Ownership transfer is the legal transfer of ownership. This transfer is for the 'chosen one' (son) in the family, and the other sons will receive family financial assistance. The value of the assets received by the chosen one

is equal to that of the inheritance beneficiary. Family assistance refers to the provision of facilities such as land, buildings, machineries, and financial support to other sons who are not appointed as successors of the firm. The combination between ownership transfer and family assistance occurs in a family who have a single son. Family assistance quite often encourages the formation of a new firm, and hence it is considered as a spin-off in the present study.

Figure 1 Family firm born entrepreneurs.



Source: Authors.

The foundation of a new firm could be influenced by the typology of family structure and inheritance custom. In Japan, a successful new firm facilitates the evolution of the family of companies to become more competitive. The genealogical transformation based on such reproduction is the heart of the matter in many environments (Rose and Ito, 2005). If family structure is sufficiently flexible, it becomes possible for the family to change business environment and set up a new business in the new industry or new business category.

Some studies attempted to answer the relationship between family firms and spin-offs. Piore and Sabel (1984) mentioned that the idea of using family ties in spin-off is to create alliances. They took a case from Alfred Motte, cotton-textile manufacturer in France, where Motte provided the start-up capital for new establishment and have them to be specialised in

one of phases of production. Meanwhile, Rose and Ito (2005) found that spin-off strategies aimed to improve the survivability of family firms. Firms that are established and genealogically related with other firms can develop diverse knowledge and skill. Rose and Ito took an example of Daiwa Bank and Nomura Securities, where Daiwa Bank is a commercial bank, which spun off Nomura Securities, an investment bank. Both of these studies discussed that spin-off in the family firm was caused by economic reasons or firm strategy. In this study, We hypothesise that spin-off can occur because of family structure, norm, and culture. Thus, our study is one of the timeliest topics to show that not only economic driver can cause spin-off but also social element can contribute to spin-off.

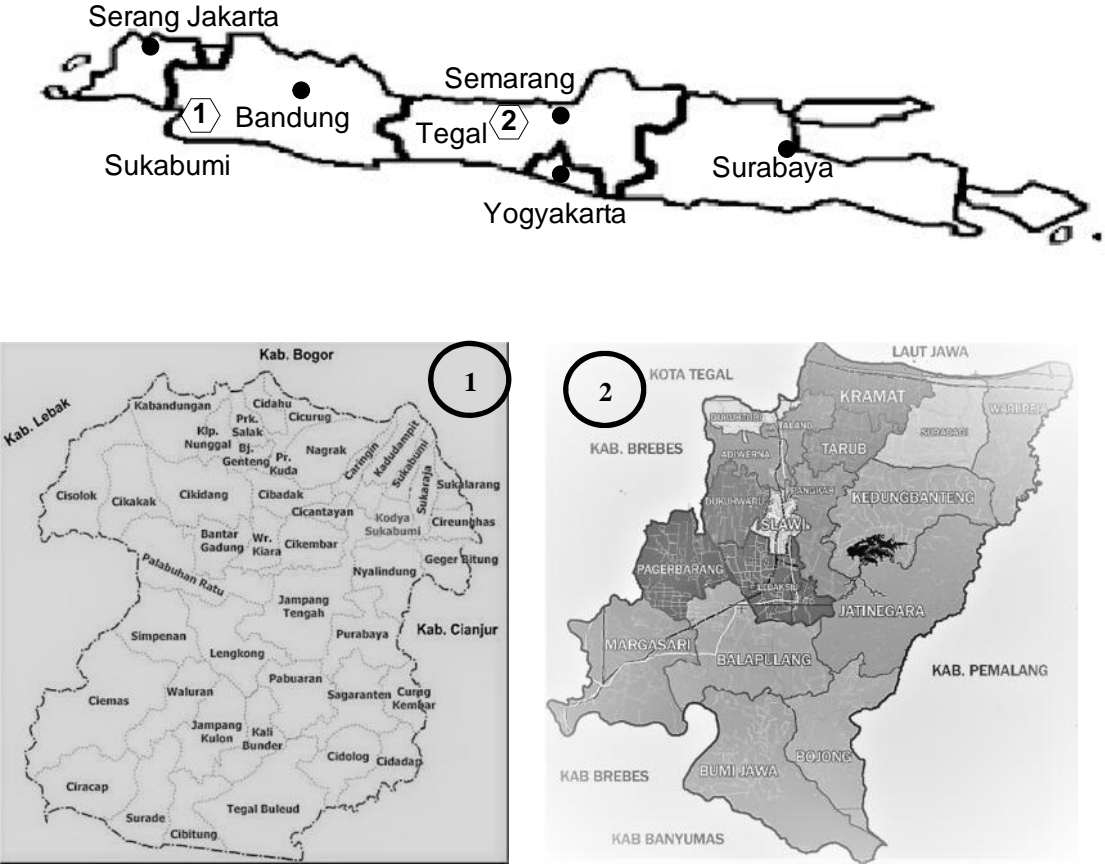
3. Family firms in Sukabumi and Tegal

The present study is conducted in two metal-working clusters in Indonesia, namely Sukabumi regency (Sukabumi) and Tegal regency (Tegal) as can be seen in Figure 2. Sukabumi is a regency in southwestern Java as part of West Java province of Indonesia. The regency seat is located in Palabuhanratu, a coastal sub-district facing the Indian Ocean. The metal-working cluster is located in Cisaat district, which has an area of 23.3 square kilometres and a population of 115 thousand. Tegal is a regency in the northwest of central Java, with its district seat located in Slawi. Tegal has an area of 878 square kilometres and the population is 1,395 million.

The metal-working industry in Sukabumi located in Cisaat started from traditional blacksmiths who made daily implements such as knives, machetes, hoes, etc. These blacksmiths mastered their techniques with the advent of forging process. Meanwhile, the metal-working industry in Tegal has supplied equipment for the transportation industry (rail and ship) and the sugar industry since the 1930s (Bappenas, 2004). In fact, this industry was related to the existence of 6,400 hectares of sugarcane plantation area. It supplies equipment to seven sugar factories and the existing railway and shipyard industries in Tegal.

According to local government reports, there are numerous metal-working firms in these regions. For instance, there are 679 metal-working firms in Sukabumi spread in Cisaat, Kebonpedes, Jampang Kulon, Caringin, Surade, Cicurug, Purabaya, Cibitung, Cimanggis, and Nyalindung. Cisaat became popular area among entrepreneurs in metal working, and there are around 180 firms in this area. Likewise, in Tegal, there are around 1,800 metal-working firms, which are scattered in Talang, Adiwerna, Margasari, Pangkah, Lebaksiu, Kramat, Dukuhturi, Pagerbarang, Balapulang, Tarub, Slawi, etc. (see Figure 2)²

Figure 2 Research areas



Source: Regional government reports.

This study covers small firms in Sukabumi and Tegal that operated during the period 1980–2015. Officially, Sukabumi and Tegal have become metal-working industry clusters since

² Data provided by local government.

1984, marked by the establishment of industrial estates by the government in 1984 (MOI, 1986a, 1986b). In 1996, the private sector, Astra International,³ participated in the development of this cluster. Astra established '*Sentra Industri*' (Sentris) in Sukabumi and a business development agency in Tegal.

This study examines 68 small family firms in Sukabumi and Tegal. They are selected from 2,500 firms in both regions that were registered by industrial agencies. The selection of 68 companies considers (1) firm size (preferably small-medium sized firms); (2) legal firm status (preferably C.V.⁴ and P.T.⁵); and (3) family-owned firms.

These 68 firms include 42 firms as 1GFFs and 26 firms as 2GFFs and 3GFFs (see Table 1). Table 1 shows the relationship between year of firm establishment, type of succession, and nature of firm. In particular, 2GFFs and 3GFFs produced different products with their relatives. For instance, Tjamat Putra I (firm number 16 in Table 1) is a 2GFF that continues father's business (ownership transfer), specialised in casting components. Meanwhile, Tjamat Putra II (17) is a 2GFF, which is specialised in sugar mill components, and Tjamat Putra III (18) is a 2GFF, which produces ship components. Firms 17 and 18 were established by using family assistance from their parents. Two cases will be presented to show how family structure and the system of division of succession promotes spin-offs.

Table 1 is prepared from different sources, including firm archives, interview results, and firm data. Firm archives are important documents that were collected during interviews.

³ Astra International (Astra) is an Indonesian conglomerate. Market capitalisation of Astra at the end of year 2016 was Rp 335.0 trillion. Astra has developed its business by implementing a business model based on synergies and diversification within seven business segments: automotive, financial services, heavy equipment and mining, agribusiness, infrastructure and logistics, information technology, and property. With a diversified business, Astra has touched various aspects of national life through its products and services. Astra conducted business operations in all parts of Indonesia under the management of more than 200 subsidiaries, joint ventures and associates, and was supported by more than 200 thousand employees.

⁴ C.V. is a limited partnership not involving a legal person, and personal assets are liable for obligations.

⁵ P.T. is a limited liability firm.

Table 1 The Nature of firms and succession

No	Name of Firm ^a	Year of Establishment/transfer ^a	Products ^b	Location ^a	Number of worker ^c	Founder ^b	Succession ^b		Generation of ownership ^b	Market channel ^{a&b}
							Ownership transfer	Family assist.		
1	Target	2011	Medical equip.	Tegal	26		0		2	Partnership
2	Matahari	2001	Rolling door	Tegal	18	0			1	Direct market
3	Frintakaru	2005	Fire extinguishers equip	Tegal	16		0		2	Contract
4	Putra Bungsu	1988	Heavy equip. comp.	Tegal	32				1	Contract
5	Milako Teknik Mandiri	1992	Heavy equip. comp.	Tegal	30				1	Contract
6	Intan Pratama	1992	Electr. Comp.	Tegal	25				1	Contract
7	Japra Pratama	1992	Automobile exhaust	Tegal	25				1	Partnership
8	Prima Karya	1990	Heavy equip. comp.	Tegal	30		0		2	Contract
9	Gaya Teknik Logam	2001	Automobile comp.	Tegal	18	0			1	Contract
10	Karya Utama Logam	2001	Nozzle, valve.	Tegal	15		0		2	Contract
11	Putra Logam Jaya	2001	Nozzle, valve	Tegal	20			0	2	Direct market

Table 1 The Nature of firms and succession (Cont.)

No	Name of Firm ^a	Year of Establishment/transfer ^a	Products ^b	Location ^a	Number of worker ^c	Founder ^b	Succession ^b		Generation of ownership ^b	Market channel ^{a&b}
							Ownership transfer	Family assist.		
12	Adi Jaya Logam	2004	Automobile acc.	Tegal	18			0	2	Partnership
13	FnF Metalindo Utama	2014	Automobile comp.	Tegal	36		0		2	Contract
14	Mulia A J	1980	Nozzle, valve	Tegal	22	0			1	Contract
15	Matahari I H	1986	Electr. Comp.	Tegal	25	0			1	Contract
16	Tjamat Putra I	2000	Casting comp.	Tegal	16		0		2	Direct market
17	Tjamat Putra II	2003	Sugar mill comp	Tegal	10			0	2	Contract
18	Tjamat Putra III	2003	Ship comp.	Tegal	12			0	2	Contract
19	Setia Kawan	2011	Porthole	Tegal	14		0		2	Partnership
20	Karya Manunggal	2011	Ship acces.	Tegal	18			0	2	Partnership
21	Adhi	2011	Automobile acc.	Tegal	12			0	2	Partnership
22	Kamaru	2011	Porthole	Tegal	15			0	2	Partnership
23	Riska Mandiri	2011	Ship acces.	Tegal	20			0	2	Partnership
24	Adi Logam	2006	Hydran valve	Tegal	12	0			1	Direct market
25	Logam Mandiri	2002	Nozzle	Tegal	14	0			1	Direct market

Table 1 The Nature of firms and succession (Cont.)

No	Name of Firm ^a	Year of Establishment/transfer ^a	Products ^b	Location ^a	Number of worker ^c	Founder ^b	Succession ^b		Generation of ownership ^b	Market channel ^{a&b}
							Ownership transfer	Family assist.		
26	NS	1990	Pump	Tegal	22	0			1	Direct market
27	Putra Jaya	1997	Welding	Tegal	25		0		2	Direct market
28	Izan Putra	2001	Screw	Tegal	20			0	2	Direct market
29	Kaligung Jaya	2003	Clamp	Tegal	14			0	2	Direct market
30	Elceha Jaya	1997	Automobile comp.	Tegal	25			0	2	Contract
31	Lancher Jaya	2002	Rice milling comp.	Tegal	18	0			1	Contract
32	Abadi Baud	2006	Screw	Tegal	15	0			1	Direct market
33	Sinar Kencana	2001	Heavy equip. comp.	Tegal	26	0			1	Contract
34	Rhodas	1995	Casting	Sukabumi	28	0			1	Direct market

Table 1 The Nature of firms and succession (Cont.)

No	Name of Firm ^a	Year of Establishment/transfer ^a	Products ^b	Location ^a	Number of worker ^c	Founder ^b	Succession ^b		Generation of ownership ^b	Market channel ^{a&b}
							Ownership transfer	Family assist.		
35	Sinar Terang	2004	Screw	Sukabumi	20	0			1	Direct market
36	Samudra	2004	Casting	Sukabumi	25	0			1	Direct market
37	Fitinda	1997	Agri tools	Sukabumi	16	0			1	Partnership
38	Bima	2002	Screw	Sukabumi	14	0			1	Direct market
39	Saga Multi	2006	Casting	Sukabumi	18	0			1	Direct market
40	Alifa	2005	Simple agri machinery	Sukabumi	12	0			1	Partnership
41	Alfa Utama	1989	Simple agri machinery	Sukabumi	18		0		2	Partnership
42	Nuansa Ilham	1992	Automobile acc.	Sukabumi	14	0			1	Partnership
43	Kopinkra	2010	Automobile comp.	Sukabumi	38		0		2	Contract
44	Karya Pusaka	1986	Simple agri machinery	Sukabumi	18	0			1	Partnership
45	UD Dedi	1989	Agri tools	Sukabumi	16	0			1	Partnership

Table 1 The Nature of firms and succession (Cont.)

No	Name of Firm ^a	Year of Establishment/transfer ^a	Products ^b	Location ^a	Number of worker ^c	Founder ^b	Succession ^b		Generation of ownership ^b	Market channel ^{a&b}
							Ownership transfer	Family assist.		
46	Abadi Teknik	1986	Simple agri and food machinery	Sukabumi	25		o		2	Partnership
47	Putra Abadi Teknik	2003	Military support.	Sukabumi	25			o	2	Partnership
48	Sejahtera Abadi Teknik	2005	Medical equip. comp.	Sukabumi	8			o	2	Contract
49	Hade	2006	Agri machinery	Sukabumi	18		o		3	Partnership
50	Tunas Abadi Teknik	2004	Automobile comp.	Sukabumi	15		o		3	Contract
51	Gilang Abadi Teknik	2003	Edu teaching aid	Sukabumi	20	o			1	Contract
52	Fahmi Cipta Abadi	1997	Automobile comp.	Sukabumi	42	o			1	Contract
53	Muara Berkah	2001	Automobile acc.	Sukabumi	18	o			1	Partnership
54	Entis	2009	Agri tools	Sukabumi	16	o			1	Partnership
55	Undang	2007	Agri tools	Sukabumi	12	o			1	Partnership
56	Jio	2001	Automobile acc.	Sukabumi	18	o			1	Partnership
57	Sarandi Karya Nugraha	1998	Medical equip.	Sukabumi	52	o			1	Partnership

Table 1 The Nature of firms and succession (Cont.)

No	Name of Firm ^a	Year of Establishment/transfer ^a	Products ^b	Location ^a	Number of worker ^c	Founder ^b	Succession ^b		Generation of ownership ^b	Market channel ^{a&b}
							Ownership transfer	Family assist.		
58	Alpindo	1996	Automobile comp.	Sukabumi	62	0			1	Contract
59	Barkah Jaya Mandiri	1996	Automobile comp.	Sukabumi	48	0			1	Contract
60	Cahaya Logam I	2000	Screw	Tegal	18	0			1	Direct market
61	Lulu Putra Mandiri	2005	Porthole	Tegal	16	0			1	
62	Cahaya Logam II	2004	Automobile acc.	Tegal	20	0			1	Partnership
63	Bontot Putra Logam	2009	Valve, nozzle	Tegal	14	0			1	Partnership
64	Merpati Teknik	2007	Automobile acc.	Tegal	12	0			1	Partnership
65	Sartika	2007	Rice milling comp.	Tegal	16	0			1	Contract
66	Budi Logam Putra	2001	Gold and silver artisan	Tegal	15	0			1	Direct market
67	Udin	2007	Welding	Sukabumi	10	0			1	Direct market
68	Nugraha	2002	Agri tools	Sukabumi	12	0			1	Partnership

a: firm archives

b: interview result

c: firm data

Interviews were conducted using semi-structured questionnaire to gain deeper insights on family tree, succession, entrepreneur motivation, relationships with other similar companies, etc. The collected data consist of brief statistics about the current state of firms.

3.1 Abadi Teknik families – Succession after retirement of founder

Abadi Teknik (46) is one of the oldest firms in Sukabumi. It was established by Mr. Jekeh on 1973. He started the operation by repairing agricultural tools with five workers, where two of them were his sons. His firm was equipped with a drilling machine, grinding machine, and lathe. Then, he developed his firm into a producer of food processing machines and simple agricultural machineries. He had 13 children in his family and nine of them were boys.

Mr. Jekeh recalled that he applied Islamic norm on every aspect of life including in business life. Since the beginning, he never intended to make Abadi Teknik a large firm. He invested the profit that he earned on land and buildings.⁶

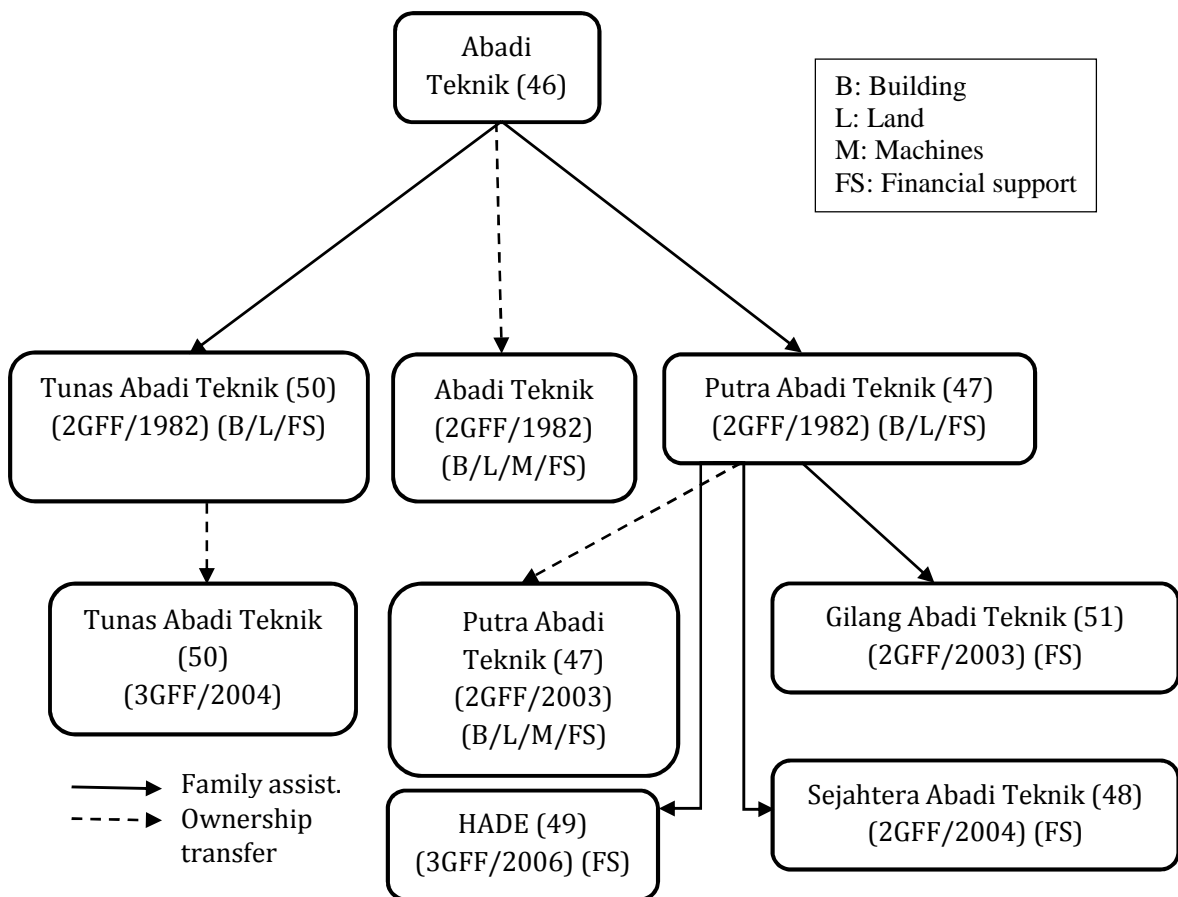
When Mr. Jekeh passed away, his family distributed the inheritance by Islamic law. His sons received larger share of inheritance than his daughters and wife. The eldest son, Mr. Dadang, inherited land and workshop in the industrial estate area along with three machines, and he founded Tunas Abadi Teknik (50). The second son, Mr. Endang, got the responsibility to continue Abadi Teknik (see Figure 3). The other sons joined to establish Putra Abadi Teknik (47). According to Mr. Endang, Putra Abadi Teknik was established to manage the inheritance for the other sons, because most of them were teenagers and it was led by Mr. Ujang, the third son. Mr. Ujang passed away on 2002, thus, the other brother chose to run their own firm, namely: Mr. Dikdik established Gilang Abadi Teknik on 2003, Mr. Burhanuddin founded

⁶ Interview result, 2015.

Sejahtera Abadi Teknik on 2004, and Mr. Adit, son of Mr Ujang, established HADE on 2006. Meanwhile, Putra Abadi Teknik hold by Mr. Amir.

These six firms are small firms that are independent from each other and have different customers. For instance, Tunas Abadi Teknik focuses on supporting automobile component manufacturers, Sejahtera Abadi Teknik (48) focuses on supporting health equipment manufacturers, while Gilang Abadi Teknik (51) on production of educational teaching aids, etc.

Figure 3 Spin-off in Abadi Teknik families.



Note: 1GFF=first-generation family firm; 2GFF=second-generation family firm; 3GFF= third-generation family firm.

3.2 Setia Kawan families – Mother as counterweight

Setia Kawan (19) in Tegal is a firm that is specialised in foundry and welding. The production capacity has reached one ton per order. Mr. Rosadi started the business since 1988. He had seven children and five of them were boys. For succession, Setia Kawan also followed the Islamic law in order to distribute the ownership transfer and inheritance, such as land, building, and machinery.

The mother had an important role for this family. After Mr. Rosadi passed away and decision on the succession had been made in 2007, a spin-off did not yet occur in this firm. The mother controlled their children to hold Setia Kawan as one firm that still had some customers for ship components and other foundry products, even though every son wished to start their own business, as they wanted to avoid conflict in the future.

When their mother passed away in 2011, the sons agreed to divide their large customer base and established five new firms, namely Karya Manunggal (20), Riska Mandiri (23), Kamaru (22), Adhi (21), and Setia Kawan (19). Karya Manunggal was given to the first son, Mr Ali, including the building and facilities. However, the brand name of Setia Kawan was given to the second son, Mr. Imron. The other siblings established new firms by using their inheritance. These four new firms still focus on foundry in small size (i.e. 100–200 kg), welding, and machining.

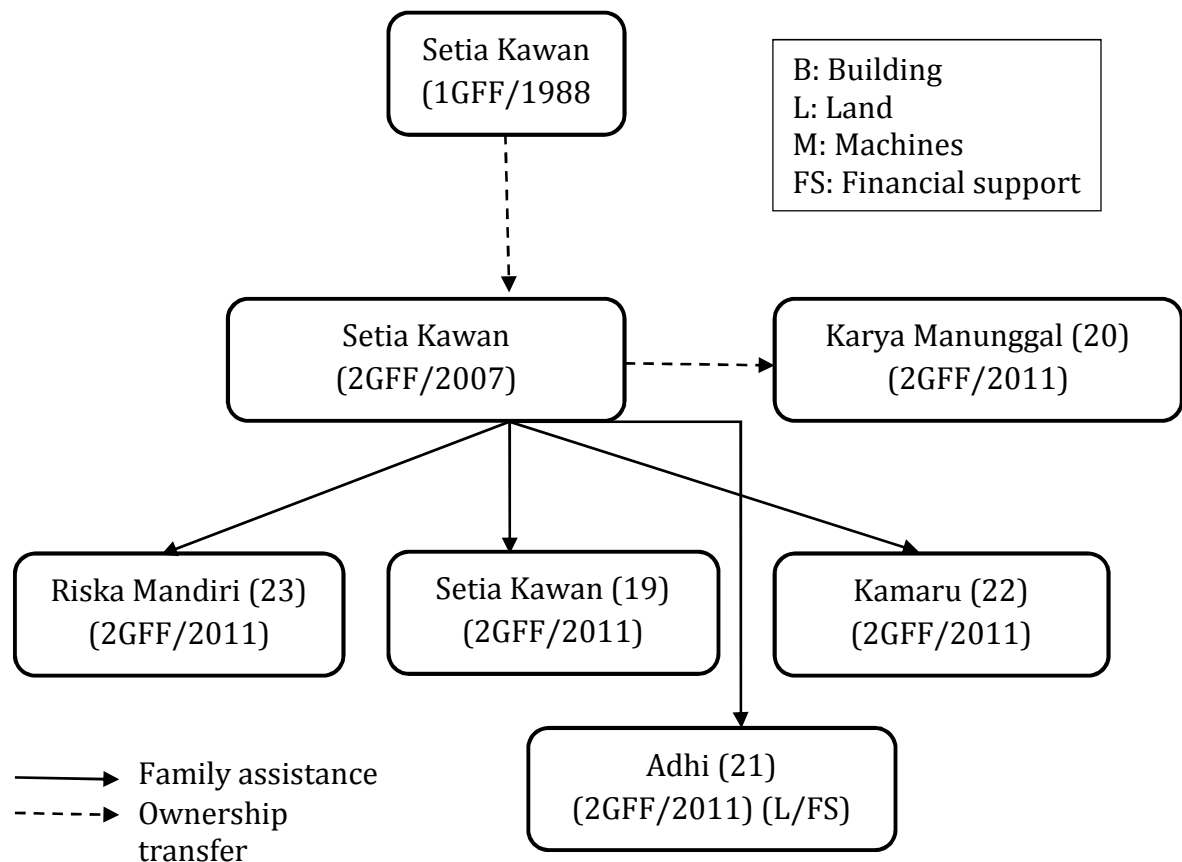


Figure 4 Spin-off in Setia Kawan families.

Note: 1GFF=first-generation family firm; 2GFF=second-generation family firm; 3GFF=third-generation family firm; N=number.

4. Historical background of family firms

Before 1980, there is an old Indonesian expression, '*Banyak anak berarti banyak rejeki*', which translates as 'Many children means a lot of fortunes'. This expression was commonly used in household life and still continues to this day. Therefore, it was not surprising when Indonesia's

total fertility rate (TFR) reached five to six children per woman at the time.⁷ By having many children, parents could encourage the children to work in order to support the family income. Here, supporting family income refers to family workers and they can be found in every sector of economic activity, such as agriculture, industry, services, etc.

Statistically, family workers have an important employment status in Indonesia, especially during economic downturn. For instance, from the 1980s to early 1990s, the proportion of family workers and normal workers was 51% and 49% of employment, respectively. This shows that family workers became an important matter for family firms in Indonesia. For parents, there are two objectives to directly involve children in the business: operational strategy and succession. First, the engagement is a strategy to reduce the firm's operating costs, especially labour costs. Second, the involvement of children in the firm is part of the succession.

Different data were shown in the early 1990s to the mid-1997; the proportion of family workers and normal workers was 34% and 66%, respectively. During this period, Indonesia tried to show their identity as a newly industrialising economy with a lot of foreign direct investment (FDI), especially in the manufacturing sector. This proportion increased again from 1998 to 2003 (i.e. 44% and 56%, respectively) when Indonesia faced the economic crisis, and fell back in 2004 and 2015, which was 30% and 70%, respectively.⁸

⁷ World Bank, *World Development Indicator*, 1960–2015, <https://www.databank.worldbank.org/data/reports.aspx?source=2&series=SP.DYN.TFRT.IN&country=IDN> (accessed on November 1, 2017)

⁸ Statistics Indonesia, *Population of Main Employment Status and Main Industry, 1986 – 2017*, <https://www.bps.go.id/Subjek/view/id/6#subjekViewTab3|accordion-daftar-subjek1> (accessed on May 19, 2017).

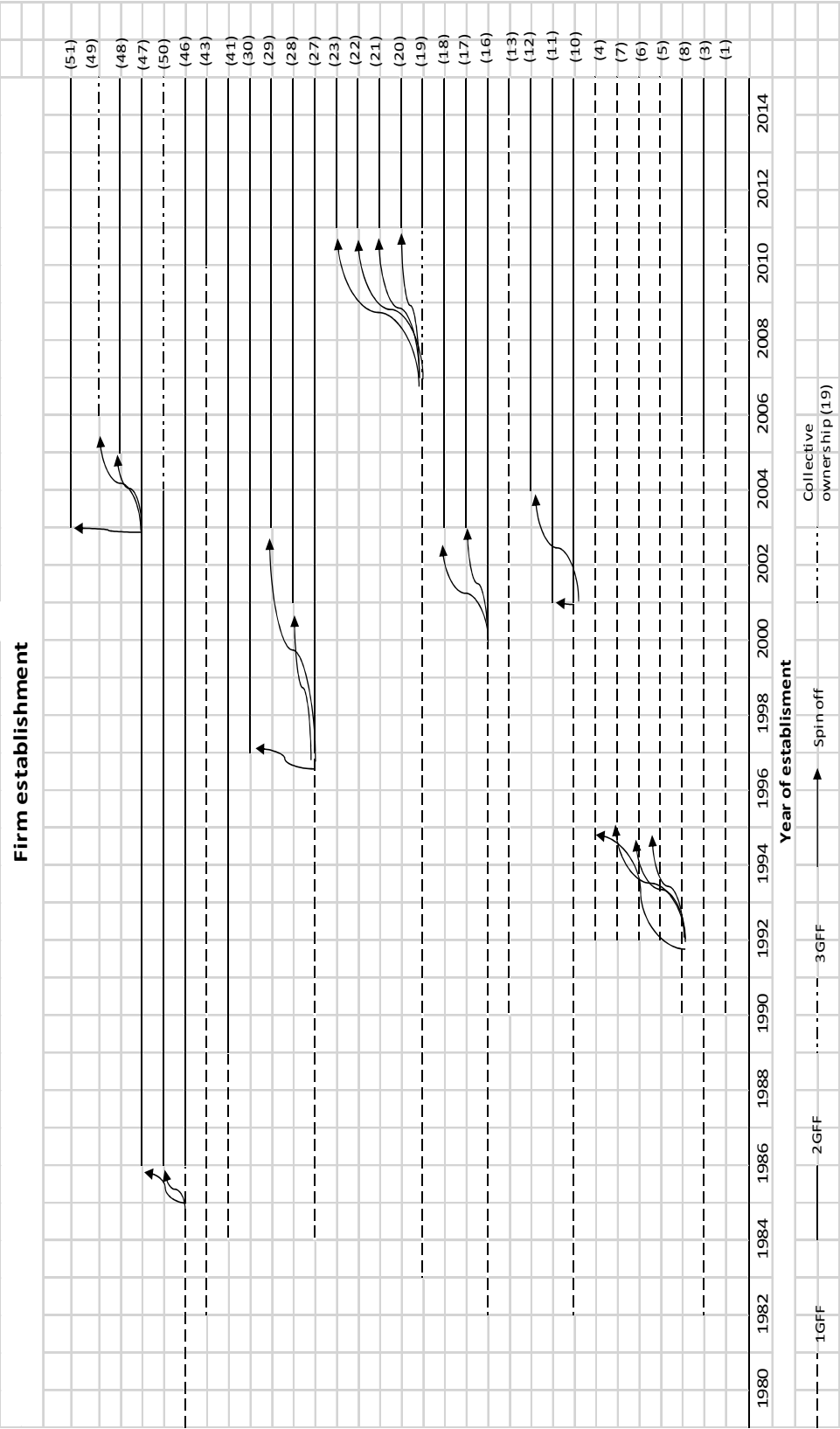
The specific succession pattern of family firms in Sukabumi and Tegal brought a series of new firms by family-firm born entrepreneurs. Among 68 firms examined by this study, 31 firms experienced generational changes. Figure 5 shows a simplified firm development chart for those 31 firms. It shows how family members promoted spin-offs. For instance, C.V. Abadi Teknik (46), which was established in 1973 in Sukabumi, established five more firms, namely Putra Abadi Teknik-2GFF (47) in 2003, Sejahtera Abadi Teknik-2GFF (48) in 2003, Gilang Abadi Teknik-2GFF (51) in 2004, Tunas Abadi Teknik-3GFF (50) in 2004, and HADE-3GFF (49) in 2006.

The establishment of new firms is accompanied by the transfer of assets, machinery, and customers. For instance (in Figure 3), 2GFFs that had to leave Abadi Teknik (46) received land, building, and a few machinery items as a part of family inheritance. They also divided their main customers and chose their specialisation: Abadi Teknik focused on agriculture machinery, Putra Abadi Teknik (47) concentrated on supporting tools for military, Sejahtera Abadi Teknik (48) produced building machinery and supporting tools for medical equipment producers, and Gilang Abadi Teknik (59) focused on education tools.

Of 26 2GFFs and 3GFFs (Figure 5), six of them received their firms by ownership transfer and family assistance, since they were 'the only son' in their family. We focus on 20 firms that were established because of family-based succession pattern. They came from five different parent firms: Abadi Teknik families, Putra Jaya families, Setia Kawan families, Tjamat Putra families, and Karya Utama Logam families. From five parent firms, it spun off into 15 new firms due to family assistance.

Wong (1985) introduced the model of Chinese family firms with four development phases: emergent-centralized-segmented-disintegrative. By adapting Wong's model, in general, the development of family firms in this study follows emergent-centralised-disintegrative phases. In the emergent phase, the founders play a leading role where they usually motivated

Figure 5 Historical background of family firms and spin-offs.



Note: 1GFF=first-generation family firm; 2GFF=second-generation family firm; 3GFF=third-generation family firm.
Source: Author.

the children to discontinue their education to university or to work for another firm. They are expected to work in their own firms. In addition, mother has a role as a mediator between father and sons. In the centralised phase, children assume responsibility, usually managerial and technical production. Meanwhile, the father is responsible for investment and handling customers. However, in the process of new customer search, the father begins to engage his children. If there are several children, usually the child who becomes a successor will be involved in this matter. In addition, the father also begins to invest in land and buildings for use by other children. This stage will continue until the father dies. From the disintegrative phase, the firm spin-off will begin. Then, the successor will have a full control on managerial, operational, and asset ownership including land and building. The other children will continue working at the firm if the mother is still alive. When the mother dies, the other children will chose to establish new firms as a part of family inheritance.

5. Generational changes of firm transformation

This section describes how generational changes impact motivation, professionalism, and transformation on production system in 1GFFs, 2GFFs, and 3GFFs.

5.1 Motivation for starting up the business

Personality trait is a significant indicator, especially with regard to business start-up intentions. The reasons for starting a new business differ from person to person, from one country to another, depending on economic, political, societal, and cultural environment in which entrepreneurs operate. Some studies indicated that economic conditions and entrepreneurial orientations affect entrepreneurs' motivation to start up a business (Benzing et al., 2005).

The differences in the economic environment between the founder's period (1980–2000) and the successor's period (2001–2015) also show different motivations between entrepreneurs from 1GFF and 2GFF when they started a business. In the founder's period, Indonesia faced two economic problems: the unanticipated world oil price decline in the early 1980s when the Indonesian economy relied heavily on oil exports since the 1970s, and the 1997 Asian economic crisis.

In general, the 1GFF in the founder's period (Table 2) came from various types of professions such as workers, merchants, farmers, and metal artisans before they started business in metal-working. Of 19 firms, 17 who started their business stated that creating job for themselves and family were the main motivation to start a business. Meanwhile, all 2GFFs stated that they did not have any choice since their parents encouraged them to be in the business from the beginning.

Table 2. Number of firms according to year of establishment and type of family firm.

	1GFF		2GFF		3GFF	
	(N)	(%)	(N)	(%)	(N)	(%)
1980–2000	18	75	6	25	-	-
2001–2015	24	54.5	18	41	2	4.5

Notes:

1GFF=first-generation family firm; 2GFF=second-generation family firm; 3GFF=third-generation family firm; N=number.

In contrast, the economic environment and circumstances for doing business are much better in the successor's period. A huge opportunity existed for partnership since there were so many medium and large-sized firms. Most young generations in this period chose to establish a new firm. For instance, Mr. Arifin and Mr. Salafuddin were successors of Karya Utama Logam(10). When their father died in 2001, Mr. Arifin was chosen to take over Karya Utama Logam.

Meanwhile, through personal saving and family assistance, Mr. Salafuddin established his own firm, Adi Jaya Logam (12). In addition, he also had a network with some automobile spare parts manufacturers.

Mr Salafuddin's case also shows us that family assistance is the main financial source for the establishment of a new firm. Of the firms established after 2000, 44 depended on family assistances (Table 3).

'.....I left my wealth to my wife and children so there will be no conflicts in the future. Then, I can die peacefully'. (Abdullah, C.V. Target)

Table 3. Financial sources of firms.

Year of Establishment	Financial sources			Total (Percentage)		
	PS	FAs	O	PS	FAs	O
1980–2000	24	17	-	58.5	41.5	0
2001–2015	25	40	4	36.2	58	5.8

Notes:

PS=personal savings; FAs=family assistances; O=Others (financial institutions, government, etc.). It is also possible for one firm to have two or three financial sources when they established the firm.

5.2 Establishing professionalism through education

The second-generation entrepreneurs and later no longer encouraged their children to leave school early in order to work in their firms. In the successor's period, children were encouraged to continue their education to the point where they can take an industrial course, gain professional qualifications, become familiar with the latest technologies, and develop a theoretical and managerial approach to metal-working. Thus, the eternal problem of finding a compromise on work between parents' practical experience and young people's energy is made more acute in some respects through the scientific and theoretical training pursued by most children entrepreneurs.

‘...it is better to provide decent education for my children and send them to higher education, rather than investing in management consultants to improve firm performance...’ (Dadang Rusnandar, Alfa Utama)

The results show that the level of education in the founder’s period was lower than in the successor’s period (Table 3). This is due to several reasons. First, since the national education system had not been well structured, there was an infrastructure gap between urban and rural areas where most of the firms were located in rural areas. Second, parents always wanted their children to be more productive in order to support family’s income. Third, after the second generation finished six-year primary education, the parents asked their children to work in their workshops. However, in the successor’s period, they sent their children to vocational schools and universities. They also allowed their sons to work in the other firms for two to three years, and then they had to come back to the parents’ firm to work for several years before they established their own firms.⁹

The change in education level also led firms on how they manufactured the products (Table 4). In the founder’s period, entrepreneurs and workers generally did not know how to read engineering drawings and to produce efficiently. They engaged in trial and error production where their objective was to produce the same products to meet customer needs. For 2GFFs, there is an improvement, especially education level, as some of the youngsters could acquire higher education in mechanical or industrial engineering; thus, they could implement efficient layout by reading engineering drawings, which helped to reduce costs.

⁹ Interview result with 2GFF, 2016.

Table 4. Education background of entrepreneurs in metal-working SMEs.

Level of education	1980–2000			2001–2015		
	1GFF (N)	2GFF(N)	3GFF(N)	1GFF(N)	2GFF(N)	3GFF(N)
Higher education					16	1
High School	14	5		25	2	1
Primary school (PS)	4					

Notes:

1GFF=first-generation family firm; 2GFF=second-generation family firm; 3GFF=third-generation family firm; N=number.

5.3 Transformation on the production system

This subsection describes how generational change affected the transformation of production systems in micro/small firms. Here, the production system is the manufacturing subsystem that includes all functions required to design, produce, and distribute/sell a manufactured product. It is distinguished into two types: cottage industry system (CI) and factory system (FS). First, CI is the process of manufacturing goods by workers at home and selling them; sometimes, entrepreneurs also received resources from merchants and returned them as finished products. Second, FS is the modernisation of CI where design, production, and distribution are handled by merchants' firms, and they also have their own workshops for production activities.

Motivation, education level, and family structures have influenced the transformation of the production system within firms. Table 5 shows that, generally, changes occur in the production system from generation to generation. 1GFFs in the founder's period was dominated by CI. Their motivation and education level influenced how they operated their firms for the first time. They were flexible enough to change the location of production according to the demand since they only focus on increasing family income. For 2GFFs, since

most of the entrepreneurs were successors, it was difficult for them to move their production to other areas. Thus, they changed their homes into factories, and moved into new houses.

The requirement of particular workshop for production became important issues in the successor's period. Even though, 2GFFs and 3GFFs still used a part of their houses as production sites, they were already separated between their workshops and living houses. Some of the family members were waiting to get a right place before they move, while others who received land or buildings from the parent firms had started to design their buildings as workshops.

Table 5. Ownership structure of family firm and the type of production system.

Year of establishment	Type of firm	Production System		Percentages	
		CI	FS	CI	FS
1980–2000	1GFF	19		100	
	2GFF		5		100
	3GFF				
2001–2015	1GFF	25		100	
	2GFF	8	10	44.4	55.6
	3GFF		2		100

Notes:

1GFF=first-generation family firm; 2GFF=second-generation family firm; 3GFF=third-generation family firm; CI=cottage industry system; FS=factory system.

6. Conclusion

Many Indonesian micro and small family firms have a different approach to dealing with a firm's succession. In the process, the family firm facilitates a setup of new firm and it results in a spin-off. The continuation of a firm depends on rules concerning succession, ownership transfer, and family asset inheritance. In Indonesian indigenous society, the rules put priority to the succession to a family member, and the custom divides family assets (inheritance assets) equally to multiple sons. Here, We called the succession as succession of family assets. As per

the rules, multiple sons receive different family assets. In general, only one son takes a succession of father's business and other sons set up a new firm (spin-off) by using other assets. The newly established firms are independent from other firms. Although their assets came from the same source, their firms' management are different.

Generational changes have also led to changes in the motivation of entrepreneurs, education level of entrepreneurs, and production system of a new firm (spin-off). These changes made a new firm to become more professional in its management, flexible in production system, and improve networking. Successful generational changes can be seen from five parent firms that created 20 new firms from second and third generations, which survive to this day. This study also shows that the succession and generational changes represent one of the most important stages in the life of a family firm. It can be a determinant for either the continuation of business activities or the closure of the family firm.

The spin-offs led to a huge growth of the number of micro and small firms in the metal-working industry and high degree of specialization. It contributed to regional development and brought about the emergence of new economic regions or metal-working clusters. This study also showed that family firms in the metal-working sector do not intend to transform into a medium- or large-sized firms. Instead of becoming medium or large firms, the family firm even encouraged the creation of other micro and small firms.

Studies in business history have been discussing the role of SMEs and function and mechanism of industrial cluster, by emphasising economic rationality of those phenomena. This study confirmed that the dominance of micro and small firms in Indonesia can be explained partially by such economic factors. However, it also demonstrated that social and cultural factors, especially the custom of divided succession played decisive role to create micro and small firm dominated industrial structure.

References

- Bappenas, 2004. Study of Regional Development Strategy to Support Acceleration of Regional Competitiveness; Case Study: Rattan-Cirebon Industrial Group, Metal-Tegal, Batik-Pekalongan (Kajian Strategi Pengembangan Kawasan Dalam Rangka Mendukung Akselerasi Peningkatan Daya Saing Daerah; Studi Kasus: Kelompok Industri Rotan-Cirebon, Logam-Tegal, Batik-Pekalongan). Edited by Bappenas. Jakarta: Bappenas.
- Benzing, C., Chu, H.M. and Callanan, G., 2005. A Regional Comparison of the Motivation and Problems of Vietnamese Entrepreneurs. *Journal of Developmental Entrepreneurship*, 10(01), pp. 3-27.
- Bjuggren, P.O., Duggal, R. and Giang, D.T., 2012. Ownership Dispersion and Capital Structures in Family Firms: A Study of Closed Medium-Sized Enterprises. *Journal of Small Business & Entrepreneurship*, 25(2), pp. 185-200.
- Boddin, D., 2016. The Role of Newly Industrialized Economies in Global Value Chains. *IMF Working Paper* WP/16/207.
- Colli, A. and Rose, M., 2008. Family Business. Chap. 9 In *The Oxford Handbook of Business History*, edited by Geoffrey and Zeitlin Jones, Jonathan, 195-218. United States: Oxford University Press Inc.
- Colli, A. and Larsson, M., 2014. Family Business and Business History: An Example of Comparative Research. *Business History* 56(1), pp. 37-53.
- Cristensen, C.R., 1953. *Management Succession in Small and Growing Enterprises*. Boston: Harvard University.
- Donnelley, R.G., 1964. The Family Business. *Harvard Business Review*, 42(4), pp. 94-105.
- Fairlie, R.W. and Robb, A.M., 2007. Why Are Black Owned Businesses Less Successful Than White Owned Businesses? The Role of Families, Inheritances, and Business Human Capital. *Journal of Labor Economics*, 25(2), pp. 289-323.
- Gersick, K., Davis, J.A., Hampton, M.M. and Lansberg, I., 1997. *Generation to Generation: Life Cycles of the Family Business*. United States of America: Harvard Business School Press.
- Habbershon, T.G. and Williams, M.L., 1999. A Resource-Based Framework for Assessing the Strategic Advantages of Family Firms. *Family Business Review*, 12(1), pp. 1-25.

- Hayashi, M., 2002. The Role of Subcontracting in SME Development in Indonesia: Micro-Level Evidence from Metalworking and Machinery Industry. *Journal of Asian Economics*, 13(2), pp. 1-26.
- Levinson, H., 1971. Conflicts That Plague the Family Business. *Harvard Business Review*, 49(2), pp. 90-98.
- Mandl, I., 2008. Overview of Family Business Relevant Issues. Vienna: Austrian Institute for SME Research.
- MoI., 1986a. Small Industrial Estate Sukabumi (Lingkungan Industri Kecil Sukabumi). Edited by Ministry of Industry. Sukabumi: Ministry of Industry.
- MOI., 1986b. Small Industrial Estate Tegal (Lingkungan Industri Kecil Tegal). Edited by Ministry of Industry. Tegal: Ministry of Industry.
- Piore, M.J. and Sabel, C.F., 1984. *The Second Industrial Divide*. New York: Basic Book Inc.
- Rose, E.L., and Ito, K., 2005. Widening the Family Circle: Spin-Offs in the Japanese Service Sector. *Long Range Planning*, 38(1), pp. 9-26.
- Scranton, P., 1993. Build a Firm, Start Another: The Bromleys and Family Firm Entrepreneurship in the Philadelphia Region. *Business History*, 35(4), pp. 115-151.
- Tambunan, T., 2008. SME Development, Economic Growth, and Government Intervention in a Developing Country: The Indonesian Story. *Journal of International Entrepreneurship*, 6(4), pp. 147-167.
- Wallin, M.W., 2012. The Bibliometric Structure of Spin-Off Literature. *Innovation: Management, Policy & Practice*, 14(2), pp. 162-177.
- Wallin, M.W. and Åsa L.D., 2006. Sponsored Spin-Offs, Industrial Growth and Change. *Technovation*, 26(5), pp. 611-620.
- Wong, S.L., 1985. The Chinese Family Firm: A Model. *The British Journal of Sociology*, 36(1), pp. 58-72.
- Zahra, S.A., 2005. Entrepreneurial Risk Taking in Family Firms. *Family Business Review*, 18(1), pp. 23-40.