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Intergenerational transmission of self-employed status in the informal sector: a constrained choice or better income prospects? Evidence from seven West-African countries[1]

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Abstract

Social reproduction is the highest for self-employed as shown by an extensive literature from developed and developing countries. Very few studies however document the reason for this high intergenerational correlation of the self-employed status. The rare studies that have been done concern the US and show that children of self-employed benefit from an advantage when they are themselves self-employed. The purpose of this paper is to test in the African context if the second-generation of self-employed has an advantage related to the first-generation. It aims at highlighting the debate between two visions: the first of informal sector as the less-advantaged sector of a dualistic labour market, and the second as a sector of personal choice and dynamic entrepreneurship. Using 1-2-3 surveys collected in the commercial capitals of seven West African countries in 2001-2002, this paper shows that the second-generation of informal self-employed does not have better outcomes than the first one, except when they choose a familial tradition in the same sector of activity. Thus, in the African context, having a self-employed father does not provide any advantage in terms of profit or sales and is not sufficient for the transmission of a valuable informal human capital. On the other hand, informal entrepreneurs who have chosen a specific enterprise based on familial tradition have a comparative advantage. Their comparative advantage is partly explained by the transmission of enterprise-specific human capital, acquired thanks to experiences in the same type of activity and by the transmission of social capital that guarantees a better clientele and a reputation.

JEL: L26, J24, J62

Keywords: informal sector, entrepreneurship, intergenerational link

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Since the 1970's, research on informal sector constitute a growing part of the literature. The upsurge in interest is at least partly because most households in many developing countries, in particular poor households, derive a large part of their earnings from informal sector. It constitutes an often unacknowledged contribution to national production levels as well. However, despite nearly four decades of research, no consensus has emerged on the origin and the causes of informal sector. A long tradition, namely the "dualist school", views informal sector as the less-advantaged segment of a dual-labour market (Lewis 1954, Harris and Todaro 1970, Pradhan 1995). In this view, informal entrepreneurship is the result of the saturation of the formal sector. Therefore, being worker in the informal sector is a constrained choice and a large informal sector is evidence of inefficiency. A more recent approach views informal sector as a dynamic and voluntary entrepreneurial small firm sector, where individuals choose to be informal entrepreneurs because they expect a higher welfare than if they were wage-earners or formal entrepreneurs (Maloney 2004, Packard 2007). In this approach, a large share of informal self-employed may reflect an efficient allocation of labour. While the debate has become in the last years increasingly polarized (Bacchetta et ali. 2009), an integrated approach is currently arising based on the idea of multi-segmented labour-markets (Chen 2005, Fields 2005). This alternative approach considers that the informal sector is comprised of different segments. The upper-tier segment may be populated by entrepreneurs who choose to entry into informal sector while the lower-tier segment may be dominated by constrained households that could not have other choice of activity.

While there is no consensus on the voluntary nature of the entry into informal self-employment, strong evidences show the importance of the intergenerational transmission of the self-employed status. In the USA, half of the self-employed have a self-employed in their family (Dunn and Holt-Eakin 2000). In France, 41% of entrepreneurs have their father or father-in-law who is entrepreneur (Laferrère and McEntee 2001). In West Africa, social reproduction is also the highest for self-employed (Pasquier-Doumer 2010a). However, very few studies document the reasons for this high intergenerational correlation of the self-employed status. The rare studies deal with data from developed countries and show that having a self-employed father provide an advantage in terms of earning exepcted (Dunn and Holt-Eakin 2000, Lentz and Laband 1990, Fairlie and Robb 2007a 2007b, Colombier and Masclet 2006 2008, Laferrère and McEntee 1996). In the context of developing countries, the high correlation across generations of the self-employed status raises the following question: Do the children of self-employed become themselves self-employed because they have an advantage relatively to the children of wage earner? In other words, do the children of self-employed have a better access to valuable informal human capital, physical or social capital? If they have such advantage, one can support the idea that second-generation of self-employed chooses voluntary to entry into informal sector because they expect better incomes. They then constitute a dynamic and voluntary entrepreneurial segment of informal sector.

The aim of this paper is twofold. First, it seeks to know if the second generation of informal entrepreneurs has in the West African context an advantage in terms of business outcomes compared with the first generation. Second, it aims at identifying the nature and the source of such an advantage. Is it through intergenerational transmission of informal human capital, physical or social capital? What is the respective weight of each of these different channels? These issues seem particularly relevant in the African context for two main reasons. On the one hand, inequalities in Africa are very high and social mobility very low (Cogneau et ali 2007). Therefore, this paper will contribute to understand the intergenerational transmission of inequalities. On the other hand,

informal activities are the main provider of income and of jobs for most African urban dwellers (Brilleau et ali 2005). In addition, informal sector is the prevalent place of professionalization and integration of young people into the labour market, in particular for those whose drop out of school (Walther 2007).

Section 1 provides an overview of the literature and introduces the context. Section 2 presents the data and the empirical strategy. Section 3 describes the main characteristics of the second generation of self-employed. Section 4 examines the existence for the second-generation of informal self-employed of a comparative advantage. Section 5 analyses the composition of this advantage. Section 6 summarizes and concludes.

1. Literature review and context

Some studies analyze for developed countries the impact of having self-employed parents on the determinants of becoming self-employed rather than wage earner (Dunn and Holtz-Eakin 2000, Colombier and Masclet 2008, Laferrère and McEntee 1996). They all conclude to substantially higher probability to become self-employed among children of self-employed. Two main channels are identified. First, successful entrepreneurs may be more able and willing to transfer financial wealth to their children and thus allow them to relax capital market constraints. Second, parents transmit to their children valuable work experience, reputation or other managerial human capital. Thomas Dunn and Douglas Holtz-Eakin (2000) find that, in the USA, family credit market contributes very little to the correlation of self-employment status across generations. In contrast, self-employment experience of the parents has a strong effect. Because parental experience has a greater impact when parents was successful, the authors conclude that the significance of parents' self-employment reflects the transmission of skills or other aspects of human capital and not the conveyance of tastes for autonomy or for a self-employed lifestyle.

To my knowledge, only two studies aim at understanding the impact of familial background on small business outcomes (Lentz and Laband 1990, Fairlie and Robb 2007b). Both relate to the USA. Bernard Lentz and David Laband (1990) suppose that individuals acquire general managerial skills while growing up in the context of family business through the continued exposure to the family business. Children of self-employed have then an advantage compared with children of wage-earner, whose do not see their parents at work: "*The father/teacher passes on to his son valuable human capital about running a business operation; the son acquires this integrated, managerial human capital as a by-product of growing up. By the time he reaches the age of, say, eighteen, when most other youths his age are just starting to acquire job-specific skills (via employment training programs) or more general occupational skills (via college), the son of proprietor normally has already had an opportunity to accumulate the equivalent of an integrated, managerial education.*" (p. 564). The authors show that second-generation proprietors have greater success compared with first-generation proprietors. Because second-generation proprietors are found to start their businesses at a significantly younger age and to commence their business careers with a significantly greater quantity of managerial human capital, the authors conclude that children of proprietors have a comparative advantage through early acquisition of managerial human capital. The authors conclude that this advantage will predictably serve to motivate voluntary following behavior in children of proprietors.

As for Robert Fairlie and Alicia Robb (2007b), they identify three potential channels that can explain the better outcomes of the second generation of self-employed: the acquisition of general business or managerial experience in family-owned businesses, the acquisition of industry- or firm-specific business experience in family-owned businesses and inheritances of businesses. In the latter case, parents transmit capital as a reputation capital or an established clientele from one generation to the next. With another data than Lentz and Laband, they show that having a prior work experience in a family member's business is a significant determinant of small business outcomes. They also find that inherited businesses are more successful than non-inherited, but their representation among the population of small businesses is very limited. The authors conclude that the second-generation of self-employed have an advantage in terms of business outcomes compared with self-employed without self-employed family member through the transmission of managerial experience and/or firm-specific business experience.

In developing countries, there is no specific study on the impact of familial background on informal businesses outcomes. However, one can find some evidences in the literature on social capital, in particular on the effect of familial kin-ship on businesses outcomes.

Marcel Fafchamps (2002) investigates whether social networks improve firm productivity among agricultural traders in Madagascar. While a quarter of surveyed traders had either a father or a mother in trade and 14% are in this business because of family traditions, the author finds that having close relatives in agricultural trade do not have a positive effect on the productivity. Added to the finding that productivity is higher among traders who learned the business on their own and did not receive coaching from relatives, they conclude that family relationships do not constitute a productive component of social capital. They may nevertheless help at business start-up for capital and experience.

Fafchamps's results may not be generalized however to the whole informal sector and to West African countries firstly, because the way of acquisition of informal human capital in West African countries is very different from the one in Madagascar and secondly, because trade is a specific sector of activity in terms of acquisition of skills and level of capital required.

Actually, in West African informal sector, there are two main ways to acquire informal human capital: through informal apprenticeship training and on his or her own, through experience. In the capital of seven West African countries, 27.8% of the informal business owners have learned their profession through informal apprenticeship training, whereas this proportion is only 14.2% in the Madagascan capital. If trade is excluded, then informal apprenticeship training raises to 40.7% of informal business owners in West African countries but only 16.8% in Madagascar[2]. Therefore, informal apprenticeship is much rarer in Madagascar than in West Africa. It is also rarer in trade activities than in manufacturing or services activities. Moreover, trade is a very specific sector of activities in terms of the amount capital required. For example, in the West African countries the average amount of capital in informal trade businesses is 528 international dollars compared with 1053 in the other sectors[3].

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[2] Source: Author's computation based on 1-2-3 surveys (Phases 2, 2001/02, AFRISTAT, DIAL, INS for Abidjan, Bamako, Cotonou, Dakar, Lome, Niamey, Ouagadougou and Phase 2, 2001/02, INSTAT, DIAL for Antananarivo).

[3] Source: Author's computation based on 1-2-3 surveys (Phases 2, 2001/02, AFRISTAT, DIAL, INS)

In West Africa, informal apprenticeship training is commonly conceived in three phases: during the first year, the apprentice is expected to observe what the master craftsman and the workshop workers are doing. In a second phase, the apprentice is shown certain practices and gradually asked to do some practical work. In the ultimate phase, the apprentice is fully involved in workshop activities and held responsible for his or her output (Haan 2006). During this last phase, organizational, management and business skills are also transmitted, including costing, marketing, as supplier and customer relations. Having a family member involved in the same type of activity can thus improve the acquisition of informal human capital by two ways. Firstly, the choice of the master is essential for the transmission of skills. Some masters may take advantage of a high demand of training, multiplying the number of apprentices with the result that they do not have time to supervise the apprentices and they do not have enough order to make them practice (Charmes and Oudin 1994). If one of the members of the family is involved in this type of business, the family may be more able to choose a master with high professional skills and with a good turnover. Moreover, family ties continue in West Africa to play an important role in the selection of apprentices (Birks and ali 1994). Having family members in the same activity may allow to be more easily accepted by a "good" master. Secondly, because informal apprenticeship training has its roots in socio-cultural traditions that restricted the transfer of skills to members of the family or the clan (Haan 2006), one can think that the transmission of enterprise specific skills may be better with a master related to the family.

In the case of acquisition of informal human capital through experience, having a self-employed family member may increase the opportunities to accumulate experience in his/her business. This experience may also be more valuable in terms of acquisition of informal human capital because the owner may give more responsibility to a family member for two reasons: on the one hand because of socio-cultural traditions that facilitate transmission of skills inside the family, on the other hand because the family could have a greater interest in the professional success of one of its members than in the one of someone unrelated to the family.

As in developed countries, having a self-employed family member may facilitate the acquisition of physical capital. On the one hand, self-employed, at least successful one may have more capacity to invest than wage earner. On the other hand, some of the second generation of self-employed inherits a part or the whole enterprise of their family member.

In their study, Lentz and Laband (1990) do not include social capital as a possible way of intergenerational transmission of self-employed status. Fairlie and Robb (2007b) introduce it but very indirectly, as a component of the inheritance of a family enterprise. They do not formally test it. Because of imperfect markets, social capital plays in developing countries a crucial role in the performance of informal businesses (Bacchetta ali. 2009). As shown by Fafchamps (2005), social capital and more precisely social networks improve the circulation of reliable information about technology and market opportunities as well as the blacklisting of unreliable agents. Social capital can also make easier to build up a clientele through reputation and trust. In addition, as shown by Pasquier-Doumer (2010b) a large part of social network mobilized with the aim of improving professional activities is related to the family. One can thus think that the potential advantage of second-generation of self-employed can be partly explained by social networks.

2. Empirical strategy and data

For these reasons, this paper aims at testing two main hypotheses. The first one (H1) is that having a self-employed father procures an advantage for informal business owners in terms of business performance, through transmission of managerial skills and physical capital. The second one (H2) is that informal business owners having family members involved in the same type of activity have better outcomes than the other one, thanks to better endowments in specific-enterprise skills, physical capital and social capital and thanks to better returns of specific-enterprise skills and social capital.

In a first step, let consider a firm with labour, physical, and human capital denoted L, K, and H respectively and let its production function be denoted:

$$V = F(L, K, H) \qquad (1)$$

If the first hypothesis is correct, we expect that having a self-employed father allows better informal business' performance because of better endowments in physical capital K and in human capital H. Testing the first hypothesis leads then to estimate the equation (1) introducing a dummy variable denoted SE that takes the value 1 if the firm's owner has a self-employed father and 0 otherwise. If this variable is not significant, it means that the first hypothesis is incorrect. If it is significant and positive, I introduce in the model interactions between SE and K and between SE and H to know if better firm's performance is only due to better endowment in human and physical capital or if having a father self-employed raises also the productivity of human and physical capital.

In order to test the second hypothesis, I introduce in the estimation of equation (1) a dummy variable denoted TRAD that takes the value 1 if the firm's owner inherits a familial tradition, or in other words if the owner has family members involved in the same type of activity[4]. I expect that TRAD has a positive and significant effect on informal business performance. If it is the case, I try in a second step to identify the channels that can explain the better outcomes of the informal business owners, who inherit a familial tradition. Following Fafchamps (2005), I then introduce in the production function social capital as input, denoted S. I also split human capital into general managerial skills H_{MS} and enterprise-specific skills H_{ESS} and I introduce a proxy of inherited physical capital K_I.

$$V = F(L, K_I, K_{NI}, H_{MS}, H_{ESS}, S) \qquad (2)$$

I test if the interactions between TRAD and proxies of specific-enterprise skills and between TRAD and proxies of social capital are positive and significant. If it is verified, TRAD would then enter the regression as productivity shifter. Employing a Oaxaca-Blinder decomposition will allow us to evaluate the respective weight of better performance due to better endowments and the one due to better returns.

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[4] More precisely, TRAD takes the value 1 if the owner says
- She or he has created the informal business by familial tradition, and/or
- She or he has chosen the informal business' product/services by familial tradition, and/or
- One of his/her family members has created the informal business.

In these estimations, I am confronted to the usual problem of possible endogeneity of the production factors because of their accumulation over time and because of unobservable characteristics. Unfortunately, to correct for this bias I have to my disposal neither panel data nor good instruments. That's why I choose a very simple approach that just splits the sample into informal businesses with different levels of capital stock and labour.

In this study, I use a set of surveys called 1-2-3 surveys and carried out between 2001 and 2002 in seven commercial capitals of West African Economic and Monetary Union (WAEMU) countries: Cotonou (Benin), Ouagadougou (Burkina Faso), Abidjan (Côte d'Ivoire), Bamako (Mali), Niamey (Niger), Dakar (Senegal) and Lomé (Togo). A 1-2-3 survey is a multi-layer survey organized in three phases and specially designed to study the informal sector (see Brilleau, Ouedraogo and Roubaud, 2005). For this paper, I use the phase 1 and 2 of the surveys. Phase 1 is a representative labor force survey collecting detailed information about individual employment and socio-demographic characteristics, in particular the sector and status of activity of the father when individual was 15 years old. Phase 2 is a survey which interviews a sub-sample of informal production units identified in Phase 1. It provides very detailed data on the profit, sales, investments, inputs of the informal enterprises and on the characteristics of the owner. The 1-2-3 surveys define informal enterprises as small production units that (a) do not have written formal accounts and/or (b) are not registered with the tax administration. The 1-2-3 surveys do not apply a size criterion.

A major advantage of the 1-2-3 survey is its nested structure because Phase 1 ensures that Phase 2 delivers a representative picture of the informal sector. Another one is that it allows us to identify the second generation of self-employed (variables *SE* and *TRAD*) and it gives some proxies of informal human capital, social capital and intergenerational transmission of physical capital.

To estimate equation (1), I choose value added as firm's performance measure. Value added, also called profit, is the difference between total sales and total purchases in value that means all costs for intermediate inputs including all paid wages and the income of the owner. Price differences between countries are adjusted. Value added is the preferred measure of output but, because data on margins are subject to measurement error, I use total monthly sales as an alternative measure of output.

Labour (*L*) is defined as the number of monthly paid hours used in the informal business. Physical capital (*K*) includes buildings and other locations, machines, furniture, vehicles and tools. All items are evaluated at replacement costs. Like for value added, price differences between countries are adjusted. Human capital (*H*) is measured by the potential experience of the owner[5] in the labour market which reflects the gross time that owners have spent while in the labour force, and by the owner's education and his literacy in French.

To estimate equation (2), inherited physical capital (K_I) is taken into account using three variables: (i) the amount of physical capital obtained through the family[6], (ii) a dummy that takes the value 1 if the

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[5] Age minus years of schooling minus seven, the legal age at school entry.
[6] More precisely, I consider that physical capital is obtained through the family if the owner said that the capital is funded by familial loan, inheritance or by donation from one member of the family or from a friend. Unfortunately in the latter case, we cannot distinguish in the survey between friends and family. I suppose that donation from friends is virtually nonexistent, as shown by Pasquier-Doumer (2010b) in the case of Ouagadougou.

share of physical capital obtained through the family is higher than half of the whole amount of physical capital and 0 otherwise, (iii) a dummy that takes the value 1 if the owner used a location given by the family and 0 otherwise.

There are three proxies of general managerial skills (H_{MS}). The first one is that the owner has a managerial experience becoming the owner of the informal business surveyed. A previous experience as entrepreneur in another business is supposed to increase the ability of the owner to manage the informal business. The second one is that the owner knows micro-finance institutions. It reveals better access to information that can improve productivity. The last one is that the owner keeps books. It implicates better organization in the way of conducting the business.

To take into account enterprise-specific skills (H_{ESS}), we have four variables at our disposal. The first one takes the value 1 if the owner learned his profession by informal apprenticeship training and the value 0 otherwise, for the most part if he learned his profession on his own. Informal apprenticeship training gives to the owner a previous experience in his sector of activity during which transmission of enterprise-specific skills may be high. The second one is that the owner has a previous experience in the informal business that he actually manages, before becoming the owner. This experience may give him a good knowledge of technology used in the business, of market opportunities, of clientele and suppliers. It also allows him to be known by the clientele. The third one is that the owner has previous experience in this activity outside his actual business. Lastly, I use the number of years of experience in his actual activity.

Social capital of the owner (S) is approached by two dummies. The first one takes the value 1 if the owner says he doesn't have any difficulties in finding clientele and that the lack of clients is not the main obstacle to activity development. It takes the value 0 if one of these statements is not made. This variable may reflect consumer loyalty, good reputation, and that the business is well-known. However, this variable may suffer an endogeneity bias because it is likely that the self-assessment of the owner is influenced by the profit level. Owners with high profits are more likely to say they don't have any lack of clientele. That why I retain a more exogeneous proxy of social capital which is a membership to a professional association. In the West-African context, knowing the way of joining a professional association and being accepted as member may be more linked with the level of social capital than with the size of the enterprise, although this topic is very few documented.

3. What distinguish second generation of self-employed?

Second-generation of self-employed represents 60% of the informal business owners. Among them, 53% have of father self-employed and 16% inherits a familial tradition[7] (Table 1). As expected, second-generation of self-employed has in average better outcomes than the other informal business owners. However the difference is only significant regarding the sales of informal businesses with familial tradition. Their enterprises are older, in particular when they inherit a familial tradition and they are more homogeneous with regard to ethnic criteria and familial relationship. Informal businesses with familial tradition are in addition more labour intensive and less capital intensive.

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[7] 9% of second-generation of self-employed have both a self-employed father and have inherited a familial tradition.

They are overrepresented in the sector of wholesale and retail shops and underrepresented in the sectors of construction and services (Table 1).

Table 1: Characteristics of informal businesses that are owned by second-generation

Informal business characteristics	All	Self-employed father (SE)		Informal business with familial tradition (TRAD)	
	Mean/Freq	Mean/Freq	Sign	Mean/Freq	Sign
Profit (mean, Int. $)	322,6	326,0	NS	371,4	NS
Sales (mean, Int. $)	978,8	987,5	NS	1175,4	***
Capital (mean, Int. $)	770,9	787,5	NS	699,4	NS
Paid labour (mean, monthly hours)	244,6	244,8	NS	263,2	***
Age of the MSE (mean)	6,8	7,2	***	9,8	***
Ethnic homogeneity in the MSE (%)	95,3	95,7	***	96,0	***
Share of the workers from the same family	91,6	92,0	***	93,7	***
Sectors of activity					
Clothing and apparel	10,1	9,7	**	8,5	NS
Other manufacturing and food	12,3	11,5	NS	12,5	NS
Construction	5,9	5,7	NS	3,1	***
Wholesale/retail shops	11,1	12,0	NS	15,6	***
Petty traders	34,4	34,9	***	31,8	NS
Hotels and restaurants	6,0	6,3	NS	5,9	NS
Repair services	4,4	4,3	**	3,1	***
Transport	3,8	3,9	NS	2,3	***
Other services	17,3	11,7	**	12,0	***
N obs	*6536*	*3292*		*951*	
Frequency	*100*	*53*		*16*	

Source: Author's computation based on 1-2-3 surveys (Phases 1 and 2, 2001/02, AFRISTAT, DIAL, INS)
Note: The column Sign test with t-test the significance of the difference between SE versus non-SE and between TRAD and non-TRAD. *, **, ***, NS means respectively that the difference is significant at the 10% level, 5% level, 1% level, not significant.

Besides differences in the characteristics of their businesses, second generation of self-employed distinguish themselves by several personal characteristics (Table 2). Firstly, they are less educated. This result is similar to the one obtained by Lentz and Laband (1990) for USA and by Colombier and Masclet (2006) for Europe. These authors explain this result by a relatively less need for second-generation of self-employed to acquire formal training since they have the opportunity to accumulate equivalent training through the occupation of his father. On the other hand, second generation of informal self-employed are more experienced. They have in average one more year experience.

If the first hypothesis is correct, we expect that children of self-employed have more managerial skills and a higher familial investment in terms of physical capital. In this first descriptive approach, it seems not be true. Although they have more often a prior experience as manager, they neither have a better knowledge of financial institutions nor a better managerial organization. Moreover, their family did not invest more in their business than the average of informal owners. At this stage,

children of self-employed seem neither benefit from an intergenerational transmission of managerial skills nor from a better access to physical capital.

Table 2: Second-generation of self-employed characteristics

Owner characteristics	All	Self-employed father (SE)		Informal business with familial tradition (TRAD)	
	Mean/Freq	Mean/Freq	Sign	Mean/Freq	Sign
Female (%)	56,2	54,2	***	55,0	NS
Years of education	3,5	2,8	***	2,9	***
Literacy in French (%)	44,9	37,0	***	39,5	***
Polygamous (%)	16,4	18,4	***	19,2	*
Muslim (%)	57,3	58,5	***	67,3	***
Has no migrated (%)	39,6	28,7	***	40,2	NS
Has migrated recently (%)	9,3	10,7	***	10,8	NS
Father has primary education (%)	6,1	2,7	***	4,1	***
Father has second. edu. or more (%)	5,6	1,0	***	4,4	***
Years of theoretical experience	26,4	27,9	***	27,7	***
Managerial skills					
Prior management experience (%)	16,3	19,3	***	13,2	**
Knowledge of MFI (%)	35,6	33,8	***	32,3	***
Owner keeps books (%)	32,7	29,2	***	33,3	**
Enterprise-specific skills					
Informal apprenticeship training (%)	27,6	27,9	NS	30,9	***
Exp. in that enterprise before becoming the owner (%)	45,4	47,2	NS	52,7	***
Experience in this profession outside this enterprise (%)	35,3	33,2	***	32,0	NS
Years worked in this profession	9,5	10,1	***	11,7	***
Social capital					
No difficulties to find clientele (%)	26,4	26,7	NS	31,4	***
Member of a professional association (%)	4,3	4,6	***	7,5	***
Familial investment					
Share of familial investment in total investment	21,8	21,5	NS	27,5	***
Amount of familial investment	220,8	240,2	NS	244,9	**
Family gives a location	6,3	5,8	NS	6,8	**

Source: Author's computation based on 1-2-3 surveys (Phases 1 and 2, 2001/02, AFRISTAT, DIAL, INS)
Note: The column Sign test with t-test the significance of the difference between SE versus non-SE and between TRAD and non-TRAD. *, **, ***, NS means respectively that the difference is significant at the 10% level, 5% level, 1% level, not significant.

As far as owners with familial tradition are concerned, we expect according to the second hypothesis that they are endowed with more enterprise-specific skills, social capital and familial investment. It seems at this first stage largely true. In average, they have accumulated more experiences that are likely to give them higher enterprise-specific skills: experience in the informal business before becoming the owner, experience in their profession (two more years), and informal apprenticeship

training. Their social capital seems to be larger through a more frequent membership of a professional association and through a more loyal clientele. Their family contributes more to the capital formation than family of informal business owner in their whole, both in absolute and relative terms.

4. Does second generation of informal self-employed have a comparative advantage?

To test if having a self-employed father procures an advantage for informal business owner in terms of business performance, I estimates equation (1) using a Cobb-Douglas production function as functional form. Business performance is measured by the log of profit and sales. Regressors include a dummy that take the value 1 if the owner has a father self-employed (SE), labour and capital, in the log form to account for the possibility of decreasing marginal returns, and human capital variables. I anticipate that measures of the production factors should have a beneficial effect on productivity.

I introduce also some additional variables to control for various background characteristics: owner's gender because women may face difficulties entering the upper-tier segment of informal sector for various reasons (household responsibilities, discrimination, restricted mobility); polygamous status because redistributive pressure inside the family may be higher and thus capital accumulation more difficult (Morrisson 2006); religion and ethnic group because they may give access to different social networks; migration status because recent migrants may have weaker knowledge about market opportunities; father education to control for social background of the owners.

Because of moral hazard consideration, family workers or workers from the same ethnic group as the owner may be more productive. For this reason, I include the share of family workers and the share of workers from the same ethnic group as the owner in the informal business' workforce as well. In addition, since old enterprises should be better established than young ones (they have survived), I introduce the age of the enterprise. Lastly, I control for the sector of activity and the country.

Table 3 below reports the main results from OLS regression for all enterprises[8]. Because of endogeneity bias in the estimation of capital and labor parameters, I estimate equation (1) with and without introducing them in the regressors.

Contrary to expectations, having a father self-employed is shown to have no effect on profit and sales. This result remains unchanged when I split informal businesses into different terciles of capital or of labour (not presented). Thus, owners that have a father involved in self-employed activities do not benefit from an advantage, compared to owners without self-employed father. This result suggests that there is no intergenerational transmission of valuable managerial skills nor physical capital for children of self-employed.

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[8] The full table is presented in appendix as Table A.

Table 3: Effect of having a father self-employed on profit and sales

VARIABLES	(1) Log profit	(2) Log profit	(3) Log sales	(4) Log sales
Father was self-employed (SE)	**0.0472**	**0.0342**	**0.0404**	**0.0456**
	(0.0445)	**(0.0466)**	**(0.0394)**	**(0.0388)**
Owner's theoretical experience	0.0346***	0.0155**	0.0402***	0.0149***
	(0.00574)	(0.00623)	(0.00508)	(0.00518)
Owner's theoretical experience squared	-0.000488***	-0.000254***	-0.000561***	-0.000237***
	(8.44e-05)	(9.18e-05)	(7.45e-05)	(7.62e-05)
Owner's education	-0.0149	-0.0220	-0.0172	-0.0296**
	(0.0167)	(0.0177)	(0.0148)	(0.0147)
Owner's education squared	0.00419***	0.00344**	0.00428***	0.00385***
	(0.00127)	(0.00136)	(0.00110)	(0.00111)
Owner's diploma is primary certificate	-0.0247	-0.0438	0.0107	0.00241
	(0.0630)	(0.0658)	(0.0557)	(0.0548)
Owner's diploma higher than primary certificate	-0.0182	-0.00880	0.136	0.101
	(0.100)	(0.105)	(0.0884)	(0.0874)
Owner's literacy in French	0.143**	0.108*	0.126**	0.0900*
	(0.0600)	(0.0631)	(0.0531)	(0.0527)
Amount of capital in log		0.131***		0.166***
		(0.0127)		(0.0105)
Amount of paid labour in log		0.364***		0.450***
		(0.0286)		(0.0236)
Constant	5.696***	2.776***	7.287***	3.605***
	(0.189)	(0.273)	(0.166)	(0.226)
Observations	4959	4108	5179	4301
R-squared	0.241	0.294	0.320	0.420

Controls: Owner's gender, polygamous status, religion, ethnic group, migration status, father education; Ethnic homogeneity inside the enterprise, share of family workers, age of the enterprise; Sectors of activity and countries dummies.
Note: Standard errors in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Source: Author's computation based on 1-2-3 surveys (Phases 1 and 2, 2001/02, AFRISTAT, DIAL, INS).

Regarding the other variables, results by and large conform with expectations: other things being equal, higher levels of labour, human and physical capital leads to higher performances; women have lower outcomes expectations than men; being born in the city is an advantage compared with migrants; having an educated father has a significant and positive effect on businesses outcomes. However, marital status, religion and ethnic group are not significant[9] and ethnic homogeneity and the share of family members in the enterprise has a significant but negative effect on outcomes. As in Fafchamps (2005), family members thus appear to work less hard than hired workers. This could be explained by a familial pressure to redistribution that leads to share the labour, even if there are too many workers regarding the work to do.

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[9] Polygamous status is significant and has a positive effect on profit and sales, contrary to expectations, but only when capital and labour are not introduced in the regression.

We now consider the narrower definition of second generation of self-employed, that is owners whose inherit a familial tradition. The purpose is to test if the second hypothesis is correct, namely if informal business owners having family members involved in the same type of activity have better outcomes than the other one. I thus estimate the same equation as previously but introducing the variable TRAD instead of SE. I also estimate the equation on subsamples, splitting informal businesses into different terciles of capital (models (7), (8) and (9) for profit, (15), (16) and (17) for sales) or of labour (models (10), (11) and (12) for profit, (18), (19) and (20) for sales). Results are presented in Table 4 for profit and Table 5 for sales[10].

Tables 4 and 5 show that having inherited a familial tradition has a positive and significant effect on informal businesses outcomes. This result is robust to the choice of outcomes variables and to the inclusion of capital and labour variables. It remains unchanged for informal businesses with high level of production factors as well. But having inherited a familial tradition has no significant effect for low and medium level of production factors, with the exception of a positive and significant effect of TRAD on sales for businesses with medium level of capital.

Table 4: Effect of inheriting a familial tradition on profit

VARIABLES	(5) All	(6) All	(7) K<q1	(8) q1<K<q2	(9) K>q3	(10) L<q1	(11) q1<L<q2	(12) L>q3
MSE with familial tradition (TRAD)	0.127**	0.119**	0.0903	0.0722	0.213**	0.0713	0.0938	0.145*
	(0.0495)	(0.0519)	(0.0822)	(0.0767)	(0.0978)	(0.0981)	(0.0798)	(0.0813)
Owner's theoretical exp.	0.036***	0.016***	0.039***	0.020**	0.034***	0.047***	0.022***	0.026***
	(0.0051)	(0.0056)	(0.0076)	(0.0086)	(0.0108)	(0.0092)	(0.0079)	(0.0098)
Owner's theor. exp. sqd	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	(7.5e-05)	(8.1e-05)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Years of edu.	-0.0100	-0.0189	0.0180	-0.0200	-0.0376	0.00398	-0.0248	-0.0180
	(0.0151)	(0.0160)	(0.0256)	(0.0264)	(0.0269)	(0.0283)	(0.0252)	(0.0252)
Years of edu.sqd	0.004***	0.003***	0.003	0.001	0.006***	0.004*	0.004**	0.005***
	(0.00116)	(0.00124)	(0.00210)	(0.00220)	(0.00186)	(0.00207)	(0.00208)	(0.00187)
Diploma= primary certif.	-0.0166	-0.0512	0.0306	0.0688	-0.0814	0.0231	-0.0400	-0.0389
	(0.0578)	(0.0603)	(0.104)	(0.0957)	(0.0994)	(0.108)	(0.0921)	(0.0994)
Diploma> primary certif.	-0.00967	-0.0143	-0.0397	0.154	-0.0555	-0.126	0.114	-0.0112
	(0.0924)	(0.0976)	(0.174)	(0.156)	(0.153)	(0.174)	(0.158)	(0.149)
Literacy in French	0.0999*	0.0729	0.0178	0.118	0.0913	0.135	0.105	0.0829
	(0.0541)	(0.0569)	(0.0926)	(0.0902)	(0.0963)	(0.103)	(0.0848)	(0.0932)
Amount of capital in log		0.136***						
		(0.0115)						
Amount of paid labour in log		0.346***						
		(0.0263)						
Constant	5.728***	2.859***	5.304***	6.213***	5.678***	4.669***	5.463***	5.853***
	(0.169)	(0.247)	(0.403)	(0.290)	(0.309)	(0.383)	(0.297)	(0.278)
Observations	5891	4875	1938	2016	1937	1778	2080	2033
R-squared	0.245	0.299	0.210	0.211	0.223	0.149	0.232	0.278

Controls: idem models (1) to (4). **Note**: Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

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[10] Table B in the appendix presents the full table.

With regard to these results, we can conclude that informal business owners who have family members involved in the same sector of activity have on the whole an advantage in terms of business performance, compared with owners without familial tradition. In contrast, this is no longer true when we only consider owners of businesses with low or medium level of productivity factors. Therefore, in the lower- or medium-tier segment of informal sector, having inherited a familial tradition provides no advantage. This result differs from the one of Fafchamps (2005) but as we already said, the context and the field of study are very different.

Concerning the other variables, results are the same than those of the estimation of equation including the variable having a self-employed father (SE).

Table 5: Effect of inheriting a familial tradition on sales

VARIABLES	(13) All	(14) All	(15) K<q1	(16) q1<K<q2	(17) K>q3	(18) L<q1	(19) q1<L<q2	(20) L>q3
MSE with familial tradition (TRAD)	0.143***	0.119***	0.0513	0.148**	0.224***	0.0135	0.102	0.196***
	(0.0437)	(0.0431)	(0.0766)	(0.0655)	(0.0810)	(0.0849)	(0.0698)	(0.0713)
Owner's theor. experience	0.0449***	0.0193***	0.0571***	0.0253***	0.0307***	0.0529***	0.0323***	0.0316***
	(0.00456)	(0.00467)	(0.00721)	(0.00742)	(0.00887)	(0.00805)	(0.00706)	(0.00848)
Owner's theor. experience sqd	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	(6.65e-05)	(6.80e-05)	(0.000104)	(0.000106)	(0.000133)	(0.000122)	(9.97e-05)	(0.000123)
Owner's education	-0.0134	-0.0277**	0.0260	-0.0412*	-0.0391*	0.0194	-0.0263	-0.0391*
	(0.0133)	(0.0133)	(0.0240)	(0.0225)	(0.0224)	(0.0249)	(0.0218)	(0.0219)
Owner's education sqd	0.00439***	0.00420***	0.00202	0.00325*	0.00624***	0.00185	0.00495***	0.00700***
	(0.00101)	(0.00101)	(0.00195)	(0.00188)	(0.00151)	(0.00182)	(0.00176)	(0.00161)
Diploma=primary certif.	0.00631	-0.0177	-0.0179	0.0914	-0.0137	0.00660	-0.00608	0.0118
	(0.0511)	(0.0502)	(0.0974)	(0.0819)	(0.0825)	(0.0949)	(0.0807)	(0.0863)
Diploma>primary certif.	0.130	0.0671	0.200	0.235*	0.0726	0.135	0.290**	-0.00185
	(0.0816)	(0.0811)	(0.163)	(0.133)	(0.127)	(0.154)	(0.136)	(0.130)
Literacy in French	0.108**	0.0812*	0.0624	0.132*	0.0604	0.0767	0.0718	0.168**
	(0.0479)	(0.0474)	(0.0870)	(0.0768)	(0.0803)	(0.0914)	(0.0742)	(0.0810)
Amount of capital in log		0.168***						
		(0.00954)						
Amount of paid labour in log		0.438***						
		(0.0217)						
Constant	7.238***	3.594***	6.637***	7.711***	7.537***	6.234***	6.699***	7.411***
	(0.149)	(0.205)	(0.379)	(0.248)	(0.254)	(0.336)	(0.258)	(0.241)
Observations	6143	5092	1999	2080	2064	1858	2147	2138
R-squared	0.322	0.425	0.260	0.280	0.371	0.247	0.279	0.325

Controls: idem models (1) to (4). **Note**: Standard errors in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

5. What is the source of advantage?

After having established the positive effect of having inherited a familial tradition with the same choice of activity, we have to highlight the channels though which this familial tradition provides an advantage. I will then test the hypothesis that this advantage is mainly due to better endowments in specific-enterprise skills, physical capital, social capital, secondly better returns of specific-enterprise skills and social capital. To this effect, I will expand the estimation of equation (2), presented in the methodological issue, to include social capital, familial investments, general and enterprise-specific skills in the production function.

If the hypothesis is true, I expect two results. First, I anticipate that the effect of social capital, familial investments, general and specific-enterprise skills are significant and positive or in other words that these factors enter the regression as productivity shifters. Second, I surmise that these effects capture the one of having inherited a familial tradition. It means that the variable TRAD is significant in equation (1) only because it reflects better endowments and/or returns of managerial skills, enterprise-specific skills, familial investment and/or social capital. To know which factors better capture the effect of TRAD, I will introduce them step by step, first one by one (not reported) and then by pairs.

I find that when I introduce only one of these factors, the effect of TRAD is still significant. Among proxies of managerial skills, knowledge of microfinance institutions and book keeping have a positive and significant effect on profit. However, prior management experience doesn't have any effect on enterprise performance. This could be explained by the wide variety of management experiences that not necessary provide better knowledge of how to run a business. Among proxies of enterprise-specific skills, three of them have positive and significant effect: informal apprenticeship, experience in the informal business before becoming the owner and years of experience in the profession. In contrast, having experience in the profession outside the informal business doesn't have any effect. There is then no evidence that a previous experience in the same type of activity but outside the actual business procures higher enterprise-specific skills. Like for previous management experience, this could be due to heterogeneity of experiences in terms of responsibility, duration and characteristics of the enterprise where the experience took place.

Table 6 presents the estimation of equation (2) introducing proxies of transmission channels by pairs. It shows that the effect of having inherited a familial tradition disappears only when we jointly introduce proxies of enterprise-specific skills and social capital. The other combinations do not allow capturing the whole effect of TRAD. In the same way, when I measure business performance by sales instead of profit (not reported), I find that the decrease of TRAD effect is the highest when proxies of enterprise-specific skills and social capital are jointly introduced. In this case, the estimated coefficient is almost halved.

Table 6: Effect of inheriting a familial tradition on profit introducing social capital, two types of skills and inherited physical capital

VARIABLES	(5) Log profit	(21) Log profit	(22) Log profit	(23) Log profit	(24) Log profit	(25) Log profit	(26) Log profit
MSE with familial tradition (TRAD)	**0.127****	**0.110****	**0.113****	**0.138*****	**0.0779**	**0.102****	**0.107****
	(0.0495)	**(0.0493)**	**(0.0489)**	**(0.0492)**	**(0.0493)**	**(0.0497)**	**(0.0493)**
Proxies of managerial skills							
Prior management experience		0.0523	0.0221	0.0265			
		(0.0467)	(0.0461)	(0.0463)			
Knowledge of MFI		0.132***	0.122***	0.137***			
		(0.0378)	(0.0376)	(0.0378)			
Owner keeps books		0.423***	0.425***	0.431***			
		(0.0496)	(0.0494)	(0.0497)			
Proxies of enterprise-specific skills							
Owner was informal apprentice		0.0910**			0.106**	0.105**	
		(0.0422)			(0.0422)	(0.0425)	
Exp. in that enterprise before becoming the owner (Y/N)		0.218***			0.227***	0.226***	
		(0.0601)			(0.0600)	(0.0605)	
Exp. in this profession outside this enterprise (Y/N)		-0.0123			-0.00695	-0.00934	
		(0.0402)			(0.0402)	(0.0405)	
Exp. in this profession (years)		0.009***			0.008***	0.0091***	
		(0.00272)			(0.00270)	(0.00272)	
Proxies of social capital							
No difficulties to find clientele			0.306***		0.314***		0.301***
			(0.0391)		(0.0394)		(0.0394)
Owner is member of a business association			0.338***		0.373***		0.363***
			(0.0777)		(0.0781)		(0.0782)
Proxies of familial investment							
Share of familial invesment in total investment				-0.136***		-0.121**	-0.108**
				(0.0499)		(0.0503)	(0.0498)
Amount of familial investment				2.2e-05***		2.2e-05***	1.9e-05***
				(7.66e-06)		(7.69e-06)	(7.68e-06)
Family gives a local				0.133		0.141	0.145*
				(0.0852)		(0.0858)	(0.0852)
Constant	5.728***	5.016***	5.052***	5.186***	5.412***	5.562***	5.601***
	(0.169)	(0.188)	(0.178)	(0.179)	(0.179)	(0.180)	(0.169)
Observations	5891	5814	5891	5887	5814	5810	5887
R-squared	0.245	0.262	0.267	0.258	0.262	0.253	0.257

Controls: idem models (1) to (4). **Note**: Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1.
Source: Author's computation based on 1-2-3 surveys (Phases 1 and 2, 2001/02, AFRISTAT, DIAL, INS).

Taken together, these results suggest that more valuable social capital and higher enterprise-specific skills contribute to why informal business owners with family members involved in the same sector of activity have better outcomes. One question remains: is the advantage explained by better endowments of social capital and enterprise-specific skills or by better returns of these factors?

Therefore I will examine by using decomposition methods what is the respective weight of better endowments and better returns of social capital and enterprise-specific skills in the explanation of the better outcomes. Decomposition methods aim at understanding the gap in the means of a outcome variable (informal business performance) between two groups (owners with and without a

familial tradition). I will then decompose the gap into that part that is due to differences in the magnitudes of the determinants of the outcome one the one hand, and group differences in the effects of these determinants on the other. In other words, I will estimate the respective weight of endowments in production factors and of returns of these factors in the explanation of the gap. The most common approach to identifying sources of intergroup gap is the Oaxaca-Blinder decomposition (Blinder 1973, Oaxaca 1973). In this approach, two separate production function are estimated for owners with and without familial tradition. The Oaxaca-Blinder decomposition is:

$$\overline{\log \pi_{Trad}} - \overline{\log \pi_{NTrad}} = \beta_{Trad}(\overline{x_{Trad}} - \overline{x_{NTrad}}) + (\beta_{Trad} - \beta_{NTrad})\overline{x_{NTrad}} \qquad (3)$$

where π_{Trad} and π_{NTrad} are the profit of owners with and without familial tradition, respectively; $\overline{x_{Trad}}$ and $\overline{x_{NTrad}}$ are vectors containing the respective means for owners with and without familial tradition of the independent variables. The first term on the right hand side captures the profit differential due to different endowments of owners with and without familial tradition. The second term is the profit gap attributable to different returns to those endowments. To deal with the index problem and test the robustness of the results with different weighting schemes, I also use the decomposition method proposed by Neumark (1988). Table 7 reports the results of decomposition based on Oaxaca-Blinder's and Neumark's approaches.

Table 7: Oaxaca-Blinder and Neumark decomposition of profit and sales gap between owners with and without familial tradition

	Log profit				Log sales			
	Oaxaca-Blinder		Neumark		Oaxaca-Blinder		Neumark	
	Coef.	%	Coef.	%	Coef.	%	Coef.	%
Raw gap	0,181***		0,181***		0,189***		0,189***	
Due to coeffcients and interactions	0,069	38,5	0,083	45,8	0,103	54,9	0,104	55,4
Due to endowments	**0,111**	**61,5**	**0,098**	**54,2**	**0,085**	**45,1**	**0,084**	**44,6**
Contribution from raw gap in endowments								
Owner was informal apprentice	0,004	2,2	0,005	2,8	0,001	0,5	0,002	1,1
Exp. in that enterprise before becoming the owner	**0,018**	**9,9**	**0,021**	**11,6**	0,007	3,7	0,009	4,8
Exp. in this profession outside this enterprise	0,000	0,0	0,000	0,0	0	0,0	0	0,0
Exp. in this profession (years)	**0,024**	**13,3**	**0,025**	**13,8**	**0,017**	**9,0**	**0,019**	**10,1**
Prior management experience	-0,001	-0,6	-0,001	-0,6	0	0,0	-0,001	-0,5
Knowledge of MFI	-0,005	-2,8	-0,007	-3,9	**-0,009**	**-4,8**	**-0,011**	**-5,8**
Owner keeps books	0,015	8,3	0,015	8,3	0,02	10,6	0,019	10,1
No difficulties to find clientele	**0,016**	**8,8**	**0,016**	**8,8**	**0,012**	**6,3**	**0,012**	**6,3**
Owner is member of a professional association	**0,010**	**5,5**	**0,011**	**6,1**	**0,011**	**5,8**	**0,011**	**5,8**
Share of familial investment in total investment	**-0,011**	**-6,1**	**-0,009**	**-5,0**	**-0,01**	**-5,3**	**-0,009**	**-4,8**
Amount of familial investment	0,006	3,3	0,003	1,7	0,007	3,7	0,004	2,1
Family gives a local	0,001	0,6	0,002	1,1	0,002	1,1	0,003	1,6
All	0,077	42,5	0,081	44,8	0,058	30,7	0,058	30,7
Contribution in Social capital	0,026	14,4	0,027	14,9	0,023	12,2	0,023	12,2
Contribution in Enterprise-specific skills	0,046	25,4	0,051	28,2	0,025	13,2	0,030	15,9
Contribution in Managerial skills	0,009	5,0	0,007	3,9	0,011	5,8	0,007	3,7
Contribution in Familial investment	-0,004	-2,2	-0,004	-2,2	-0,001	-0,5	-0,002	-1,1

Controls: idem model (5). **Note**: *** p<0.01; in bold are the coefficient significant at the level 0.05.
Source: Author's computation based on 1-2-3 surveys (Phases 1 and 2, 2001/02, AFRISTAT, DIAL, INS).

First, profit differential is mostly explained by differences in endowments: 61.5% of the profit gap is due to differences in the magnitudes of production factors when Oaxaca-Blinder decomposition is

used and 54.2% with Neumark decomposition. This result remains unchanged if we consider sales instead of profit, even if share of raw gap explained by endowments is lower (45.1% and 44.6% using the two methods). Another way of convincing the reader that the source of advantage of owner with familial tradition is mostly due to better endowments consist in estimating production function with interactions between TRAD and the production factors. Positive and significant coefficients of these interactions mean better return of production factors for owners with familial tradition. The results are presented in the table C of the Appendix and show that all the interactions are not significant. There is one exception, that is the interaction between TRAD and the amount of familial investment but the coefficient is negative. Therefore familial capital has worse returns when it is used in an informal business with familial tradition.

Second, if we have a look at the contribution of each variable that may explain the advantage of owners with familial tradition, we find that only four variables have a positive and significant contribution: experience in that enterprise before becoming the owner, experience in this profession, no difficulties to find clientele, membership to a professional association explain respectively 9.9%, 13.3%, 8.8% and 5.5% of the profit gap. Taken together, proxies of enterprise-specific skills and social capital are the main contributors of the profit gap. They explain 39.8% of it with Oaxaca-Blinder decomposition and 43.1% with Neumark decomposition. This share is weaker when sales gap is considered but is still significant, more than a quarter of the gap.

Third, the familial investment in the business capital explains virtually none of the gap. Owners with familial tradition are not better endowed in capital coming from the family than the other owners. On the contrary, they are found to be worse endowed. In the same way, differential in endowments in managerial skills explains very little of the gaps in business outcomes.

Because differentials in proxies of enterprise-specific skills and social capital explain most of the outcome gap between owners with and without familial tradition and because the effect of TRAD disappears when these proxies are introduced, we can say that the main source of the advantage of owners with familial tradition is a better access to enterprise-specific skills and to social capital. An alternative hypothesis would be that the better outcomes of owners with familial tradition only reflect an ability bias because the family sorts inside the family members the more able to manage the familial enterprise. But the results presented show that this alternative hypothesis has to be rejected.

6. Conclusions

An important finding of this research is that for West-African informal entrepreneurs, having a self-employed father does not provide any advantage in terms of profit or sales. Children of self-employed don't have better access to valuable human, physical or social capital. On the contrary of USA or European countries, there is no intergenerational transmission of general managerial skills, which could explain a comparative advantage for children of self-employed. This specificity of West African countries with regard to USA or European countries might be due to a different way of exposure to the business of the father or higher differentials in terms of managerial skills used.

Then, the strong correlation of self-employment status across generations can not be explained by the existence of a comparative advantage for children of self-employed. Other explanations have to be found. Alternative determinants of this correlation can be put forward: the conveyance of taste for autonomy, a self-limitation of professional aspirations or a segmented structure of the labour market that constrain children of self-employed to be themselves self-employed in the informal sector. However, we don't have evidence to justify acceptance of one hypothesis over another. Further research is needed.

The second important result of this research is that having family members involved in the same type of activity is important for informal businesses, in particular for business in the upper-tier segment of informal sector. The owners with familial tradition have a comparative advantage in terms of profit or sales. This advantage is mostly explained by the transmission of enterprise-specific human capital, acquired thanks to higher opportunities to accumulate experiences in the same sector of activity, and by the transmission of social capital that guarantees a better clientele and a reputation. On the contrary, owners with familial tradition don't have better access to physical capital or to managerial skills.

This paper casts a new light on the voluntary nature of the entry into informal sector. It defends the idea of multi-segmented labour-markets where some owners choose to entry informal sector because they expect large profit. One of the characteristics of these owners is that they have family members involved in the same type of activity.

These findings are important from a policy perspective. Most policies currently in place aiming at improving efficiency of informal sector are targeted toward alleviating financial constraints. Other programs focus on reinforcing general business human capital, for example management and financial skills. The findings of this research suggest that providing opportunities for work experiences in informal businesses and developing professional networks through associations may be good policies. They might allow would-be informal owners to acquire enterprise-specific skills and develop their social capital. They would then contribute to improve informal sector efficiency and reduce intergenerational inequalities in business ownership patterns. However, these issues deserve further investigation on the effectiveness of these types of policies, especially evidence from impact evaluations of experimental programs.

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Table A: Effect of having a father self-employed on profit and sales (full table)

VARIABLES	(1) Log profit	(2) Log profit	(3) Log sales	(4) Log sales
Father was self-employed (SE)	**0.0472**	**0.0342**	**0.0404**	**0.0456**
	(0.0445)	**(0.0466)**	**(0.0394)**	**(0.0388)**
Owner's female	-0.656***	-0.386***	-0.610***	-0.265***
	(0.0453)	(0.0500)	(0.0401)	(0.0417)
Owner's education	-0.0149	-0.0220	-0.0172	-0.0296**
	(0.0167)	(0.0177)	(0.0148)	(0.0147)
Owner's education squared	0.00419***	0.00344**	0.00428***	0.00385***
	(0.00127)	(0.00136)	(0.00110)	(0.00111)
Owner's diploma is primary certificate	-0.0247	-0.0438	0.0107	0.00241
	(0.0630)	(0.0658)	(0.0557)	(0.0548)
Owner's diploma higher than primary certificate	-0.0182	-0.00880	0.136	0.101
	(0.100)	(0.105)	(0.0884)	(0.0874)
Owner's literacy in French	0.143**	0.108*	0.126**	0.0900*
	(0.0600)	(0.0631)	(0.0531)	(0.0527)
Owner's polygamous	0.0904*	0.0360	0.0835*	0.0389
	(0.0541)	(0.0570)	(0.0474)	(0.0471)
Owner's Muslim	0.0718	0.0688	0.0687	0.0643
	(0.0584)	(0.0610)	(0.0515)	(0.0507)
Owner belongs to the majority ethnic group	-0.0478	-0.0367	-0.0380	-0.0342
	(0.0406)	(0.0429)	(0.0358)	(0.0356)
Owner's not a migrant	0.109**	0.0818*	0.0966**	0.0656*
	(0.0431)	(0.0451)	(0.0379)	(0.0374)
Owner's migrated recently	0.0168	0.111	-0.0509	0.0331
	(0.0698)	(0.0762)	(0.0618)	(0.0633)
Father's primary education	0.164**	0.0628	0.111*	0.0100
	(0.0749)	(0.0796)	(0.0653)	(0.0652)
Father's secondary education or more	0.194**	0.172**	0.118*	0.0755
	(0.0802)	(0.0835)	(0.0704)	(0.0691)
Owner's theoretical experience	0.0346***	0.0155**	0.0402***	0.0149***
	(0.00574)	(0.00623)	(0.00508)	(0.00518)
Owner's theoretical experience squared	-0.000488***	-0.000254***	-0.000561***	-0.000237***
	(8.44e-05)	(9.18e-05)	(7.45e-05)	(7.62e-05)
Ethnic homogeneity in the enterprise	-0.396***	-0.287**	-0.491***	-0.306**
	(0.144)	(0.144)	(0.126)	(0.119)
Share of family members in the enterprise	-1.033***	-0.363***	-1.270***	-0.432***
	(0.106)	(0.113)	(0.0940)	(0.0938)
Age of the MSE	0.0150***	0.0122***	0.0183***	0.0145***
	(0.00284)	(0.00300)	(0.00251)	(0.00251)
Amount of capital in log		0.131***		0.166***
		(0.0127)		(0.0105)
Amount of paid labour in log		0.364***		0.450***
		(0.0286)		(0.0236)
Constant	5.696***	2.776***	7.287***	3.605***
	(0.189)	(0.273)	(0.166)	(0.226)
Observations	4959	4108	5179	4301
R-squared	0.241	0.294	0.320	0.420

Controls: Sectors of activity and countries dummies. Note: Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1. Source: Author's computation based on 1-2-3 surveys (Phases 1 and 2, 2001/02, AFRISTAT, DIAL, INS).

Table B: Effect of having inherited a familial tradition on profit and sales (full table)

VARIABLES	(5) ln_profit	(6) ln_profit	(13) ln_sales	(14) ln_sales
MSE with familial tradition (TRAD)	0.127**	0.119**	0.143***	0.119***
	(0.0495)	(0.0519)	(0.0437)	(0.0431)
Owner's female	-0.632***	-0.358***	-0.590***	-0.244***
	(0.0411)	(0.0454)	(0.0363)	(0.0378)
Owner's education	-0.0100	-0.0189	-0.0134	-0.0277**
	(0.0151)	(0.0160)	(0.0133)	(0.0133)
Owner's education squared	0.00409***	0.00354***	0.00439***	0.00420***
	(0.00116)	(0.00124)	(0.00101)	(0.00101)
Owner's diploma is primary certificate	-0.0166	-0.0512	0.00631	-0.0177
	(0.0578)	(0.0603)	(0.0511)	(0.0502)
Owner's diploma higher than primary certificate	-0.00967	-0.0143	0.130	0.0671
	(0.0924)	(0.0976)	(0.0816)	(0.0811)
Owner's literacy in French	0.0999*	0.0729	0.108**	0.0812*
	(0.0541)	(0.0569)	(0.0479)	(0.0474)
Owner's polygamous	0.0866*	0.0420	0.0688	0.0266
	(0.0486)	(0.0514)	(0.0426)	(0.0424)
Owner's Muslim	0.0851	0.0831	0.0814*	0.0760*
	(0.0526)	(0.0552)	(0.0465)	(0.0459)
Owner belongs to the majority ethnic group	-0.0232	-0.0147	-0.0151	-0.0177
	(0.0371)	(0.0392)	(0.0327)	(0.0325)
Owner's not a migrant	0.108***	0.0911**	0.0885***	0.0690**
	(0.0385)	(0.0404)	(0.0339)	(0.0335)
Owner's migrated recently	0.0322	0.109	-0.0544	0.0197
	(0.0638)	(0.0693)	(0.0564)	(0.0576)
Father's primary education	0.178**	0.0780	0.118*	0.00785
	(0.0693)	(0.0735)	(0.0603)	(0.0600)
Father's secondary education or more	0.134*	0.130*	0.0710	0.0328
	(0.0745)	(0.0779)	(0.0653)	(0.0643)
Owner's theoretical experience	0.0363***	0.0162***	0.0449***	0.0193***
	(0.00516)	(0.00561)	(0.00456)	(0.00467)
Owner's theoretical experience squared	-0.000513***	-0.000263***	-0.000626***	-0.000300***
	(7.52e-05)	(8.18e-05)	(6.65e-05)	(6.80e-05)
Ethnic homogeneity in the MSE	-0.468***	-0.367***	-0.522***	-0.342***
	(0.130)	(0.130)	(0.114)	(0.107)
Number of unpaid family members in the MSE	-1.049***	-0.360***	-1.288***	-0.436***
	(0.0965)	(0.103)	(0.0854)	(0.0857)
Age of the MSE	0.0156***	0.0133***	0.0184***	0.0158***
	(0.00263)	(0.00278)	(0.00233)	(0.00232)
Amount of capital in log		0.136***		0.168***
		(0.0115)		(0.00954)
Amount of paid labour in log		0.346***		0.438***
		(0.0263)		(0.0217)
Constant	5.728***	2.859***	7.238***	3.594***
	(0.169)	(0.247)	(0.149)	(0.205)
Observations	5891	4875	6143	5092
R-squared	0.245	0.299	0.322	0.425

Controls: Sectors of activity and countries dummies. Note: Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1. Source: Author's computation based on 1-2-3 surveys (Phases 1 and 2, 2001/02, AFRISTAT, DIAL, INS).

Table C: Effect of having inherited a familial tradition on profit and sales with interactions

VARIABLES	(5) Log profit	(27) Log profit
MSE with familial tradition (TRAD)	0.127**	0.00593
Proxies of managerial skills	(0.0495)	(0.106)
Prior management experience		0.0289
		(0.0495)
TRAD*Prior management experience		0.114
		(0.133)
Knowledge of MFI		0.0731
		(0.0403)
TRAD*Knowledge of MFI		0.239**
		(0.105)
Owner keeps books		0.426***
		(0.0516)
TRAD*Owner keeps books		-0.00248
Proxies of enterprise-specific skills		(0.114)
Owner was informal apprentice		0.0952**
		(0.0455)
TRAD*Owner was informal apprentice		0.0537
		(0.102)
Exp. in that enterprise before becoming the owner (Y/N)		0.199***
		(0.0624)
TRAD*Exp. in that enterprise before becoming the owner		0.0980
		(0.106)
Exp. in this profession outside this enterprise (Y/N)		-0.0219
		(0.0427)
TRAD*Exp. in this profession outside this ent.		0.0366
		(0.107)
Experience in this profession (years)		0.00977***
		(0.00285)
TRAD*Experience in this profession		-0.00806
Proxies of social capital		(0.00487)
No difficulties to find clientele		0.304***
		(0.0426)
TRAD*No difficulties to find clientele		0.0557
		(0.106)
Owner is member of a professional association		0.310***
		(0.0876)
TRAD*Owner is member of a professional association		0.0658
Proxies of familial investment		(0.190)
Share of familial invesment in total investment		-0.140**
		(0.0547)
TRAD*Share of familial invesment in total inv.		0.00246
		(0.130)
Amount of familial investment		3.95e-05***
		(1.03e-05)
TRAD*Amount of familial investment		-4.44e-05***
		(1.52e-05)
Family gives a local		0.0671
		(0.0938)
TRAD*Family gives a local		0.202

		(0.219)
Constant	5.728***	4.929***
	(0.169)	(0.188)
Observations	5891	5810
R-squared	0.245	0.277