Intergenerational Transmission of self-employed Status and informal Production units Performance in Cameroon

Mboutchouang, Vincent De Paul and Kenneck, Joseph Massil and Mbenga Bindop, Kunz Modeste

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Mboutchouang Vincent de Paul*, University of Yaounde II, REMA; Kenneck Joseph Massil** Université de Paris X, Laboratoire EconomiX; Mbenga Bindop Kunz Modeste***, University of Yaounde II, REMA

Abstract

This study aims to contribute to the debate on the determinants of the informal firms' outcomes by focusing on the potential influence that the family background can have on informal business outcomes in Cameroon. Using data from the Survey on Employment and the Informal Sector (SESI 2) in Cameroun, this study shows that children of self-employed father and/or mother have a better value added, sales in some cases, than entrepreneur that parents does not have this status. This comparative advantage is strengthened when the transmission is between a father and his son or when the child, regardless of gender, is engaged in the same branch of activity as his parent(s). This transmission consists of the dissemination of a stock of human capital in the form of specific skills.

Keys words: Intergenerational transmission, second-generation entrepreneur, informal firm, business outcomes.

JEL: L26, J24.

Résumé

Cette étude vise à contribuer au débat sur les résultats des entreprises du secteur informel en se focalisant sur l'éventuel influence que peut avoir l'environnement familial sur la performance d'une firme. A partir, des données de l'Enquête sur l'Emploi et le Secteur Informel au Cameroun (EESI 2), l'étude montre que les individus ayant eu un père et/ou une mère entrepreneurs réalisent une valeur ajoutée et des ventes, plus importantes que les entrepreneurs descendants de parents n'ayant pas ce statut. Cet avantage comparatif se renforce lorsque la transmission s'établit entre le père et son fils ou lorsque l'enfant, indépendamment du genre, s'engage à son compte propre dans la même branche d'activité que son père et/ou sa mère. Cette transmission consiste principalement à une diffusion d'un stock de capital humain sous forme de compétences spécifiques.

Mots clés: Transmission intergénérationnelle, seconde génération, entreprises informelles, performances

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* E-mail: mb.vincentdepaul@gmail.com Phone: +237 94 27 66 03. P.O. Box: 16314, Yaoundé-Cameroon

** E-mail: joseph.keneckmassil@u-paris10.fr Phone : 06 12 -63 10 48.

***E-mail: kunzbindop@yahoo.fr Phone: +237 96 52 40 42. P.O. Box: 16314, Yaoundé-Cameroon.

1. Introduction

The informal sector has often been considered as an institutional "no man's land" in which coexists a set of small unorganized firms at the edge of the modern sector. The picture is different in sub-Saharan Africa where there is a dynamic informal sector and an amorphous modern sector. Informal entrepreneurship plays an important role in economy of this area. This position is justified by its impact in term of job and wealth creation (Bohme and Thiel, 2012; Benjamin et al, 2012). Since, the seminal report of ILO on the informal activity in Kenya (Hart, 1972), research on the informal sector in developing countries has focused largely to provide, without consensus: definition; origin and the reasons of his persistence. In the literature, two approaches differ on the questions of the efficiency and the choice the informal sector. For development theorists (Nurkse, 1953, Lewis, 1954, Harris and Todaro, 1970) underdeveloped economies are characterized by a dual labor market, consisting of a modern sector that is organized and a less-advantaged segment comparable to the informal sector. They argue that being worker in the informal sector is due to a saturation of the modern sector of these economies characterized by the scarcity of capital and overpopulation. These jobs are characterized by low (or even zero) marginal productivity which justifies the low wages in this sector. In this context, informal entrepreneurship appears as a constrained choice and a large informal sector involved inefficiency. This conclusion is not shared by some recent studies (Maloney, 2004; Packard, 2007) who argue that informal entrepreneurship is the result of an optimal choice where individuals expect a higher welfare than if they were wage earners or entrepreneurs in the formal sector. An extension of this approach argues that the informal sector has different segments. The upper-tier segment is dominated by entrepreneurs who have chosen to settle in the informal sector and the lower-tier segment is populated by compelled individuals (Bacchetta et al, 2009).

If there is no consensus on the voluntary nature to be engaged into self-employment and efficiency of informal production units, some stylized facts lead reflections toward an intergenerational transmission of self-employed status. In France and United States, respectively 41% and 50% of entrepreneurs have at least one family member who was self-employed (Lafèrre, 2001; Fairlie and Robb, 2006). In Cameroon, it turns around 70%, and 90% of workers are concentrated in the informal sector. In the literature, the intergenerational transmission of the self-employed status is usually associated with high expected earnings (Dunn and Holt-Eakin, 2000; Colombier and Masclet, 2006, 2008, Fairlie and Robb, 2006, 2007). However, some empirical evidences do not support this result in some cases (Pasquier-Doumer, 2012). This contrast follows the debate between mode of education (formal or informal) and income (Becker, 1962, Lentz and Laband, 1990).

To our knowledge, in Cameroon there is no study that focused on the incidence of intergenerational transmission of entrepreneurship status on the productivity of the informal firms. Therefore, this study aims to examine the following questions: Do individuals with self-employed parents perform (value added, sales) more than other entrepreneurs? Does transmission channel of the self-employed status important (father-son, mother-son, father-daughter, mother-daughter)? Which skills are transmitted?

The interest of these questions consist on the fact that informal sector is the main provider of income and employment for young people in Cameroon (more than 80% of young, INS, 2011). In addition, Cameroonian economy is characterized by high inequality and low social mobility. In this context, assess whether the family background can improve performance of a firm is important.

This study uses data from the Survey of Employment and the Informal Sector (SEIS 2); especially phase 2, that turns attention on informal production units.

The plan of this paper is structured as follows. Section 2 presents a brief review of literature. Methodology and data are presented in section 3. Our results are discussed in sections 4. Section 5 concludes.

2. Occupational following: An overview

Microeconomic determinants of entrepreneurship have been widely discussed. Empirical studies show that self-employment is positively associated with being male, older, educated, immigrant and asset owners[1]. Another important determinant that has been identified in the literature (Fairlie, 1999; Dunn and Holtz-Eakin, 2000; Colombier and Masclet, 2006) is having at least one self-employed parent. As the results show, children of business owners are 2 or 3 times more likely to be entrepreneur. As Lentz and Laband (1983; 1990) suggest intergenerational transmission is a transfer of wealth and/or skills from parents to children. Therefore some studies identify (Lentz and Laband, 1990; Fairlie and Robb, 2007) that self-employed which are children of entrepreneur can acquire two types of human capital: "general business human capital" and specific business human capital". General business human capital includes general administrative, and personnel management skills and general management expertise. Specific business human capital includes enterprise-specific skills, information specific to the firm's production and job or industry specific knowledge. For Fairlie (2002), intergenerational transmission is the result of similarities between members of the same family that tend to share preferences for autonomy, share the same attitude toward risk and thus develop characteristics to become entrepreneurs.

To our knowledge, few studies have investigated the link between intergenerational transmission of self-employed status and business outcomes (Lentz and Laband, 1990, Fairlie and Robb, 2006; Pasquier-Doumer, 2012). These studies intend to highlight the comparative advantage that allows second-generation entrepreneur (Children of self-employed who also become self-employed) to perform more than first generation of self-employed (Children of wage earners or unemployed). These studies contribute to the debate on returns of education. Indeed, the human capital theory (Becker, 1962) denotes that the differences in investment in formal education (school education and vocational training) explain the differences in productivity and therefore in business outcomes. This theory therefore argues for a formal transmission of human capital through education. However, Lentz and Laband (1983) developed theory of occupational following which states that "followers"[2] inherit an informal transfer of human capital. In this context, they drop formal education earlier than "non-followers" and receive a sum of discounted

[1] See Parker 2004 and 2009 for reviews of the literature.

[2] Individuals whose follow the occupational status of his father and/or mother.

income greater than the one of the first-generation entrepreneur. Therefore, there is an advantage to receive informal education provided through a transfer of skills from parents to children.

Lentz and Laband (1990) test this hypothesis on a sample of 1,805 business owners in the U.S.A. Their results indicate that averagely second generation entrepreneurs perform (sales) more than first-generation of entrepreneur. This comparative advantage is due to the fact that second-generation entrepreneurs benefit from a stock of general and specific managerial skills that motivate them to engage a business at an early age.

Fairlie and Robb (2006), using a sample of U.S. companies, argue that success of small businesses owned by children of self-employed is poorly determined by having a family member who is entrepreneur. However, the success of second generation of entrepreneurs is strongly determined by prior work experience in a family member's business or inheritance.

In the same vein, Pasquier-Doumer (2012), using the 1-2-3 surveys conducted in seven West African capitals[3], shows that children of entrepreneurs do not have better business outcomes in their firms than children of wage earners, except when they follow a family tradition in the same activity. The advantage of entrepreneurs engaged in a family tradition business is partially explained by the transmission of specific skills and transmission of social capital source of reputation and costumers.

This brief review of literature highlights the role of family background on the business outcomes and reveals the scarcity of this type of studies in developing countries like Cameroon. Thus, using the data of SEIS 2 survey this study intends to test whether the second generation entrepreneurs realize a greater value added and/or sales than the first generation of self-employed. We also analyze the pertinence of the transmission channel of this occupational status (father-son, mother-son, father-daughter, and mother-daughter). This idea has not been tested in previous studies. However, in African tradition it is well known that knowledge held by men (women) is usually transmitted from father to son, respectively, from mother to daughter (Luzietoso et al, 2000). Moreover, we test the effects of two types of human capital, general and specific managerial skills, on business outcomes.

As Lentz and Laband (1990), Pasquier-Doumer (2012) we distinguish two types of second-generation entrepreneurs. In a broad sense, it is those whose at least one parents (father and / or mother) were self-employed in a business which could not be related to the one of the respondent. In a narrow sense, it is those whose at least one of their parents were owners of a highly similar business. We assume that in the first case (the second generation in the broad sense), parents transmit managerial skills, however, in the second approach (second generation in the narrow sense), general and specific skills are transferred. In this study, first generation entrepreneurs are children of parents (father and mother) wage earners or unemployed.

[3] Dakar, Lomé, Cotonou, Abidjan, Ouagadougou, Bamako and Niamey.

3. Data and Methodology

3.1. Data

In this study, we use data of SEIS 2 carried out by National Institute of Statistics of Cameroon in 2010. This survey consists of two phases specifically designed for the analysis of the informal sector (Brilleau et al., 2005). The first phase is devoted to the employment status of individuals in labor market and second phase focuses on informal production units identified in the first phase. This survey covers 10,000 households, 48,623 individuals and 6,500 non-farm businesses in 12 regions[4]of investigation. Phase 1 consigns information on demographic characteristics and the labor market situation of individuals which have at least 10 years. Phase 2 gives information on characteristics of informal production units, characteristics of employee, production, sales, equipment, difficulties faced by these firms and social security in these companies.

This survey provides a synoptic view of informal[5] production units in Cameroon. In addition, it allows us to identify: second-generation entrepreneurs; transmission channel and provides variables that are able to capture the influence of specific and general managerial skills. Moreover, it is asked to the respondents the occupational status of their parents[6] (father and mother) and in case of need their socio-professional categories. Specific skills are apprehended through years of experience of the respondent in its current activity and a dummy that takes the value 1 if the individual has completed a professional training and 0 otherwise. A dummy variable is also used as a proxy for managerial skills. It takes the value 1 if the individual has previous experience as a manager and 0 otherwise.

The following table provides information on the characteristics of informal production units and the one of their promoters given that they are first or second-generation entrepreneur.

[4] Within the context of national survey, beyond the 10 administrative regions, city of Yaoundé and Douala are considered as regions.

[5] National Institute of Statistic define informal production unit as every firm that (a) do not have written formal accounts and/or (b) are not registered at the tax administration.

[6] Precisely, the following questions are asked to respondents: (1) when you were 15 years, your father (mother) worked? (2) What was his (her) socio-occupational category?

Table 1: Descriptive statistics on the characteristics of promoters and informal production units.

Promoters Characteristics	FG (1)	SGB (2)	Test (3)	SGN(4)	Test(5)
Female (%)	49,42	50,80	N.S.	49,2	N.S.
Number of year of education	10.418	6.895	***	6.098	***
Management experience (%)	47,74	33,85	***	27,52	***
Experience in the business	18,016	20,577	**	20,271	*
Father's education (%)	10.906	2.636	***	1.424	***
Education (Average number of years)	8,581	6,925	***	6,450	***
Characteristics of firms					
Annual value added in thousands CFA	1316,921	1160,85	N.S	1693,262	*
Annual sales in thousands CFA	3750,079	3924,172	N.S.	6078,236	***
Capital in thousands CFA	311,1037	232,9574	N.S.	233,8024	N.S.
Labor in thousands CFA	96,06	77,875	N.S.	99,8554	N.S.
Age of firm	18,678	21,137	*	21,345	*

Source: Authors based on SEIS 2 survey.

FG= First Generation, SGB, SGN= Second Generation Broad and Narrow sense. (3) and (5) are means-comparisons tests (3)= (2)-(1) and (5)= (4)-(1).

N.S. = Not Significant, *, **, *** respectively denote significant at 1%, 5% and 10%.

This table indicates that, there is approximately 50% of women entrepreneurs in the first and second generation. However, on average, first generation entrepreneurs are less experienced and more educated. This result is similar than the one of Lentz and Laband (1990) for USA who point out that those who have not received informal capital of their parents would be more motivated than others to acquire a formal human capital. Averagely, second-generation entrepreneurs working in the same activity as their parents realize greater value added and sales than first generation. This difference is not significant when considering the indicator of second-generation in a narrow sense. Finally, it appears that there is not significant differences between inputs (capital and labor) used by the groups of entrepreneurs.

3.2. Methodology

In order to test whether having self-employed parent gives a comparative advantage in terms of business outcomes (value added and sales) we conduct two sets of estimations. We use a Cobb-Douglas[7] functional form which links value added (Va) of the firm with indicators of intergenerational. This model is derived from Pasquier-Doumer (2012). We assume that intergenerational transmission (IT) indicators potentially raise productivity of key inputs[8] such as physical capital (K), human capital (H) and labor (L).

$$Va = (f_1(TI)K)^{b_K}(f_2(TI)L)^{b_L}(f_3(TI)H)^{b_H} = g(TI)K^{b_K}L^{b_L}H^{b_H} \quad [1]$$

Where functions $f_j(j=1,2,3)$ and g are indicators of intergenerational transmission.

[7] This function is flexible and homogenous advantage.

[8] The intergenerational transmissions indicators potentially raise the efficiency of inputs out as a Hicks-neutral multiplicative term.

Linearization of this functional form leads to the estimation of the following equation:

$$\ln Va_i = b_0 + b_K \ln K_i + b_L \ln L_i + b_H \ln H_i + b_1 TI_i + b' X_i + \varepsilon_i \quad [2]$$

In this equation value added is measured annually and represents difference between total sales and intermediary consumption. Labor is defined as the annual wage of the production unit. Physical capital is measured through the value of tangible assets (machines, houses, supply, etc...) of the firm. Human capital is split in order to capture the effect of managerial skills (experience as manager) and specific skills (experience in business and prior training) that represent the transmission channels through which productivity of entrepreneurs is increased. X[9] is a set of control variables like gender, marital status, religion, educational level of the father, educational level of the respondent, age of firm and the sector of activity. In a second approach, the relevance of the transmission channel is tested (father-son, mother-daugther, etc.).

Estimation of equation (1) is confronted to potential bias. Indeed, capital and labor depend on technology shocks that are typically unobserved. The result is a simultaneity bias due to possible correlation between inputs and error term. The magnitude of this bias depends on degree of correlation between capital, labor and shocks (Levinsohn and Petrin, 2003). Unfortunately, we do not have neither a panel data nor good instruments that could be helpful to correct this bias. Therefore, as Pasquier-Doumer (2012) we run the estimation of this equation by regressing a relationship with and without these variables. Moreover, as Fairlie and Robb (2006), to check the robustness of our results, we also have to estimate an equation of sales. This regression is performed on the following equation:

$$\ln Sle_i = b_0 + b_1 \ln K_i + b_2 \ln L_i + b_3 TI_i + b_4 SM_i + b_5 Cl_i + b' X_i + \varepsilon \quad [3]$$

In this equation sales (Sle) represent the company's annual sales in thousands CFA. In this model we add the marketing strategy (canvass or not, SM_i) and the type of customer (firm or household, Cl_i) as exogenous variables. Indeed, we assume that firms who practice canvass and have other companies as main customers are able to achieve better sales. X represents a matrix of control variables as defined above.

4. Results

Using SESI2 survey, estimates of the differents specifications described above are carried out in order to understand the determinants of business outcomes of informal production units.

The first set of estimates presented in Table 2 highlights the determinants of value added and sales of these firms[10]. Equation (1) indicates that having at least one parent self-employed improves performance of firms. In other words, being a second-generation entrepreneur is a comparative advantage that potentially raises inputs productivity.

[9] Statistics and definitions of the set variables used are presented in appendix.

[10] For these estimations endogenous variables considered are ln (1+Va) and ln (1+Sle), these transformations are necessary to avoid negative values after modification of these variables.

This result validates the idea that parents transmit an informal education to their children that allows them to be more productive than their homologues that have not benefited from this transfer of skills (Lentz and Laband, 1990, Fairlie and Robb, 2006). It goes against the result obtained by Pasquier-Doumer (2012) under this definition of intergenerational transmission. In this estimate sex and religion have a significant influence on business outcomes. This result leads to the fact that men have easy access to the "upper-tier" segment of the informal sector which is the most productive (Bacchetta et al, 2009). However, religion gives access to various social networks which ultimately improve access to information on the best production technics and opportunities.

Table 2: Effect of being a second generation (broadly sense) on value added and sales.

Variables	**LnVa (1)**	**LnVa (2)**	**LnVa (3)**
Capital (Thousands CFA)	0.1422***(0.0250)	0.1560*** (0.0318)	0.1206*** (0.0412)
Labor (Thousands CFA)	0.1948*** (0.0188)	0.2083*** (0.0210)	0.1939*** (0.0318)
Education	0.0484 (0.0367)		
Second generation in broadly sense	0.2009** (0.1090)		
Muslim	0.3322*** (0.1053)	0.3128** (0.1276)	0.3529** (0.1641)
Union	-0.0076 (0.4214)	0.6657*** (0.2188)	0.7382*** (0.2580)
Sex (Male)	0.5572*** (0.1598)		
Social capital	0.2679 (0.2011)	0.5250* (0.2683)	0.0316 (0.3386)
Father's education	0.0192* (0.0115)	-0.0080 (0.0153)	0.0138 (0.0167)
Age of firm	-0.0663*** (0.0144)	-0.0318* (0.0191)	-0.0926*** (0.0240)
Age of firm squared	0.0006*** (0.0001)	0.0003* (0.0001)	0.0009*** (0.0002)
Sector (trade/ service)	0.1194** (0.0544)	0.0437 (0.0712)	0.2668*** (0.0855)
Inverse Mills ratio	0.0227 (0.8781)	1.4930*** (0.4353)	1.9324*** (0.4909)
Transmission Channel			
Father-son		0.2259* (0.1318)	0.1434 (0.1585)
Father-daugther			
Mother-son			
Mother-daugther			
Specifics skills			
Experience	0.0289*** (0.0081)	0.0190** (0.0077)	0.0332** (0.0164)
Prior training	0.0544 (0.0961)	0.0555 0.1156	0.2616 (0.1731)
General skills			
Managerial skills	0.0137 (0.0860)	-0.0906 (0.1105)	0.1264 (0.1390)
Constant	4.4557*** (0.6870)	3.6545*** (0.5425)	3.0424*** (0.6305)
Observations/ R^2	923/0.3247	510/0.2806	409/0.2933

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Table 2 : Continued

Variables	LnVa (4)	LnVa (5)	LnSle (6)
Capital (Thousands of CFA)	0.1332*** (0.0327)	0.1300*** (0.0394)	0.1704*** (0.0178)
Labor (Thousands of CFA)	0.1921*** (0.0205)	0.2119*** (0.0356)	0.3018*** (0.0236)
Education			
Second generation in broad sense			0.0184 (0.0780)
Muslim	0.4312*** (0.1536)	0.3524** (0.1770)	0.2694*** (0.0776)
Union	0.7194*** (0.2345)	0.7931*** (0.2694)	
Sexe(Male)			.1414602 (0.0714)
Social capital	0.4863* (0.2634)	0.1691 (0.3316)	0.1483 (0.1460)
Father's education	-0.0100 (0.0155)	0.0073 (0.0151)	
Age of enterprise	-0.0669*** (0.0205)	-0.0940*** (0.0227)	
Age of enterprise in squared	0.0006*** (0.0002)	0.0009*** (0.0002)	
Marketing Strategy			0.0545 (0.0667)
Main customer			0.3608*** (0.1005)
Sector (trade/ service)	0.0610 (0.0812)	0.2074** (0.0864)	0.6700*** (0.0768)
Inverse Mills ratio	1.5741*** (0.4439)	2.2473*** (0.5153)	0.1179 (0.1263)
Transmission channel			
Father-son			
Father-daugther			
Mother-son	0.2088 (0.1303)		
Mother-daugther		0.1641 (0.1567)	
Specifics skills			
Experience in employment	0.0224*** (0.0087)	0.0350** (0.0163)	
Prior training	0.1179 (0.1252)	0.1673 (0.1765)	
General skills			
Manager Experience	-0.1279 (0.1212)	0.0459 (0.1423)	0.1196* (0.0654)
Constant	3.7866*** (0.5417)	2.8348*** (0.6666)	5.5346*** (0.1629)
Observations/ R^2	447/0.3232	427/0.2992	1625/0.2293

Source: Authors' computation based on SEIS 2.

***, **,* Indicate significances 1%, 5% and 10%. Standard errors in parentheses.

Equation (1) also indicates that in the informal sector, trade and services companies tend to be more productive than firms of the industrial sector. There is also a non-linear relationship between performance of production units and the age of its firms. More precisely, during the early years this relationship is negative and becomes positive, as the years increase the effect of the squared coefficient becomes large enough to strangle influence of the negative coefficient. This relationship shows the importance of the "learning phenomenon" during the life time of the firm. For the selected level of significance, education does not seem to have any impact on the value added, but it is nevertheless positive. Unsurprisingly volumes of capital and labor have a significant and a positive influence on value added and sales.

Since second-generation indicator in the broad sense is significant, equations (2) to (5) analyze whether there is a relevant transmission channel and origin the comparative advantage of second generation. From these estimates, it appears that the channel father-son is the most relevant. In other cases, although coefficients are positive but they are not significant at the level conventionally used. This result is a strong evidence about the transfer of knowledge that is mainly directed among men. Regarding the sources of this comparative advantage, estimates do not clearly show the role of general and specific skills indicators retained, except experience that appears to be significant in most estimates. Some equations show the influence of having a spouse (union) on business outcomes. Indeed, having spouse could lead to an accumulation of capital and thus increases firms' outcomes.

In some equations, inverse Mills ratio[11] is significant. This result indicates the existence of a selection bias due to the fact that only individuals with predispositions choose to be entrepreneurs. Interpretation of these estimates should be done with caution. Indeed, because of omitted variables, the coefficients obtained may be biased. This is the case when the omitted variables are important for the analysis or when some exogenous variables, used in the model, are correlated with any omitted variables. Therefore, coefficient of second generation variable in a broad sense can be unbiased or biased.

Table (3) analyzes of the influence of second generation in the narrow sense (self-employed operating in the same industry as his father or his mother who are also self-employed), on value added and sales.

Equation (7), of this set of estimation, strengthens the result previously obtained. At 1% level of significance, it appears that children that practice in the same sector of activity as their parents have better business outcomes (value added and sales) than children of wages earners or unemployed.

[11] Probit used to obtain this ratio is not reported here. In this model endogenous variable take the value 1 if respondent is self-employed and 0 otherwise. Age, sex, years of education, area of residence, residence status (owner or not) are used as exogenous variables.

Table 3: Effect of being a second generation (narrow sense) on value added and sales

variables	LnVa (7)	LnVa (8)	LnVa (9)	LnSle (10)
Capital (Thousands of CFA)	0.1237*** (0.0446)			0.1810*** (0.0291)
Labor (Thousands of CFA)	0.1830*** (0.0340)			0.2639*** (0.0385)
Education	0.0966 (0.0646)	0.1412** (0.0668)		
Second generation in narrow sense	0.4412*** (0.1544)	0.3278** (0.1620)	0.2366 (0.1632)	0.2618** (0.1195)
Muslim	0.2816 (0.2049)		0.2504 (0.2091)	0.2805** (0.1395)
Union	-0.7536 (0.7335)	-1.1242 (0.7494)	0.3707 (0.3155)	
Sex (Male)	0.9367*** (0.2995)	1.4075*** (0.3121)	0.9458*** (0.2025)	0.1668 (0.1276)
Social capital	0.0859 (0.3873)	0.0965 (0.4141)	0.2022 (0.4018)	0.2384 (0.2910)
Father's education	0.0189 (0.0182)	0.0196 (0.0181)	0.0234 (0.0189)	
Age of enterprise	-0.0446* (0.0266)	-0.0451 (0.0289)	-0.0471(0.0299)	
Age of enterprise in squared	0.0004 (0.0002)	0.0004* (0.0002)	0.0005*(0.0002)	
Marketing stratgy				-0.1549 (0.1195)
Main customer				0.4895** (0.1935)
Sector (trade/service)	0.0254 (0.1004)	-0.0411 (0.1112)	-0.0768 (0.1081)	0.6098*** (0.1477)
Inverse Mills ratio	-1.5909 (1.5273)	-2.7809* (1.5966)	0.4672 (0.6083)	0.2303 (0.2210)
Specific skill				
Experience in business	0.0274* (0.0144)			0.0243** (0.0103)
Prior formation	0.1142 (0.1844)	0.4484** (0.1904)		
General skill				
Manager experience	0.0311 (0.1604)	0.0239 (0.1644)	-0.0342(0.1580)	0.1947* (0.1180)
Constant	5.7884*** (1.2083)	7.2283*** (1.2157)	5.1202**(0.7086)	5.4736** (0.2779)
Observations/ R^2	321/0.2869	348/0.1700	348/0.1447	567/0.2412

Source: Authors' computation based on SEIS 2.

***, **,* Indicate significances 1%, 5% and 10%. Standard errors in parentheses.

On this definition, this result is the same than the one of Pasquier-Doumer (2012), obtained using 1-2-3 survey of seven capitals of West African countries in 2001-02. Estimates, of the most relevant transmission channel in this definition are not reported here. However, different estimates indicate that the source of competitive advantage for second-generation entrepreneurs consist of a transmission of specific skills measured through the number of years as entrepreneur (in the company concerned or another company) and prior training. The indicator of managerial skills is relevant only for sales equations (see equations 6 and 10). Therefore, it appears that apart from the definition of second generation status it is the transfer of specific skills, which is determinant simultaneously for sales and value added.

5. Conclusion

Using SEIS 2 survey, this study provides evidence on the determinants of performance of informal production units in Cameroon. It comes out from SEIS 2 that, averagely entrepreneurs who have self-employed parents involved in the same type of activity realize significantly greater value added and sales than entrepreneurs with wage earners or unemployed parents. However, if there are no significant differences between sales and value added of second-generation entrepreneurs having or not followed their father or their mother in the same activity and first-generation entrepreneurs, it appears that, the first group has on the average a larger stock of informal human capital and a lower level of formal education than the second group.

Estimates suggest that second-generation entrepreneurs, who practice in the same sector of activity as their parents, realize a higher value added than first-generation entrepreneurs. This result is a strong evidence of the competitive advantage associated to the second-generation entrepreneurs and enriches evidences on the returns of informal human capital.

This study also highlights the fact that for second-generation entrepreneurs, the relevant transmission channel is the one established between father and son. This evidence reinforces the idea of knowledge dissemination from father to son in Africa generally and Cameroon in particular. In addition, most estimates also indicate that in terms of business outcomes (value added and sales); it is transmission of human capital in terms of specific skills which is determinant. Managerial skills are relevant only for sales.

These results are interesting from economic policy prospects. They suggest the development of programs such as "generation contracts" implemented in France that allow an experienced worker transmit his knowledge to a young active, and thus for self-employed to increase efficiency of their production units. In this context, this policy also reduces potential inequalities due to occupational following.

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Appendix

Table A: Definitions and descriptive statistics of variables

Variables	**Definitions**	**Average (Standard deviations)**
LnVa	LnVA logarithm of the annual value added in thousands of CFA plus 1	5.964981 (0.0252888)
LnSle	LnSle logarithm of annual sales in thousand CFA franc plus 1	7.12204 (0.025542)
Second generation in broad sense	Dummy variable taking the value 1 for individual self-employed whose father (and / or mother) is an entrepreneur and 0 otherwise.	0.8411 (0.0043364)
Second generation in narrow sense	Dummy variable taking the value 1 for individual self-employed in the same industry as his father (and / or mother) 0 if it is a first generation entrepreneur.	0.7608051 (0.0062099)
Channel father (mother)-son (daugther)	Dummy variable that takes the value 1 if a man (woman) is an entrepreneur whose father (mother) is self-employed	0.6873442 (0.0077155)**
Experience in employment	Number of years during the respondent has worked as a self-employed	11.70995 (0.1109608)
Manager experience	Dummy variable that takes the value 1 if individual has previously served as a manager and 0 otherwise	0.3801583 (0.0049872)
Prior training	Dummy variable that takes the value 1 if the respondent was apprenticed to his trade and 0 otherwise	0.2098309 (0.0033692)
Sex	Dummy variable that takes the value 1 if individual is male and 0 otherwise	0.4975236 (0.0026988)
Union	Dummy variable that takes the value 1 if the respondent have a spouse and 0 otherwise	0.2841118 (0.0024344)
Muslim	Dummy variable that takes the value 1 if the respondent is Muslim religion and 0 otherwise	0.2358581 (0.0022919)
Marketing strategy	Dummy variable that takes the value 1 if promoter of the firm prospects his customers and 0 otherwise.	0.4125754 (0 .0083428)
Main customer	Dummy variable that takes the value 1 if the firm sells its products primarily to other businesses and 0 otherwise	0.8795045 (0.005463)
Sector	Dummy Variable which takes the value 1 if the company operates in the sector of trade and services and 0 if it carries on industry	0.7403754 (0.0048092)
Age of enterprise	Years of firm	20.6511 (0.540623)
Social capital	Dummy variable that takes the value 1 if the respondent belongs to a professional association and 0 otherwise	0.0379961 (0.0032079)
Education	Years of education	6.556593 (0.0293108)
Father's education	Father's years of education	4.988586 (0.0468598)

Source : Authors from SEIS 2 data.

** This statistic has been computed only for the father-son channel.