


“The impact of poor quality municipal services on small enterprises”

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Zelege Worku (South Africa)**The impact of poor quality municipal services on small enterprises****Abstract**

A survey was conducted (2012 to 2014) in the City of Tshwane in order to assess and evaluate determinants of adequate municipal services that are routinely provided to operators of start-up business enterprises. Data used in the report come from 1,058 small businesses. The aim of research is to assess and evaluate the relationship between the quality of services and sustained viability in small business enterprises. The study was conducted against the background of a high failure rate among newly established small businesses in the City of Tshwane. The study showed that there was a significant association between positive perception of business operators on the quality of municipal services provided to them and viability of businesses. The percentage of viable business enterprises that were satisfied with the quality of services provided to them was 87%. The percentage of non-viable business enterprises that were satisfied with the quality of services provided to them was only 13%. Profitability in business enterprises was significantly affected by lack of capacity for fulfilling the business and entrepreneurial needs of newly established businesses [hazard ratio = 3.58; $P = 0.000$; 95% C. I. = (1.45, 5.46)], inappropriate policy [hazard ratio = 3.19; $P = 0.000$; 95% C. I. = (1.39, 5.28)], and lack of tailor made training programs directed at newly established small businesses [hazard ratio = 2.89; $P = 0.000$; 95% C. I. = (1.24, 4.77)]. In-depth interviews conducted with business operators led to similar findings.

Keywords: city of Tshwane, small businesses, municipal services, perception, hazard ratio.

JEL Classification: L26, H7, L8.

Introduction

The study was motivated by the need for isolating key barriers to profitability in start-up business enterprises in the Tshwane region of South Africa. Marivate (2014) and Khale (2015) have reported that more than 50% of all start-up small, micro and medium-sized enterprises (SMMs) that conduct business in and around Tshwane fail in their first three years of establishment due to lack of entrepreneurial skills, lack of access to loans and lack of monitoring and evaluation programs. Nenungwi (2012), Booyens (2011), Brownson (2014), Marivate (2014), Worku (2015) and Khale (2015) have reported that sustained growth and viability in start-up SMMs conducting business in and around Tshwane is undermined by the lack of efficient municipal services, bureaucracy and over-regulation. Marivate (2014) and Khale (2015) have reported that start-up SMMs in and around Tshwane do not benefit significantly from financial and non-financial assistance provided to them by the South African Small Enterprises Development Agency (SEDA). Brownson (2014) and Edoho (2015) have reported that over-regulation, too much bureaucracy and failure in incubation programs rolled out by SEDA are key obstacles to profitability in start-up SMMs operating in the various parts of Gauteng Province including Tshwane. The purpose of the study was to assess the strength of association between sustained viability in SMMs and the provision of quality municipal services to small businesses operating in the various parts of the City

of Tshwane based on a longitudinal study design (2012 to 2014). Lack of capacity in business incubation programs that are financed and rolled out by SEDA is a key barrier in start-up enterprises that need hands-on assistance, coaching and mentoring on running SMMs efficiently. Findings reported by Khale (2015), Marivate (2014) and Edoho (2015) indicate that the current high failure rate among start-up SMMs in and around Tshwane is attributed to inefficient municipal services, over-regulation, unnecessary bureaucratic procedures, lack of transparency, lack of good governance, lack of efficiency in the administration and management of license applications, inability to assess and evaluate tax, lack of entrepreneurial skills, lack of accounting and auditing and bookkeeping skills, inability to draw up business plans, inability to make oral presentations, inability to network with business rivals and competitors, difficulty in securing loans from commercial banks and micro-lending financial institutions and lack of infrastructure. This report is based on one of very few longitudinal studies that have been conducted in the Tshwane region of Gauteng Province in South Africa for assessing the impact of poor municipal service delivery on the viability of start-up SMMs.

Objective of study

The aim of the study was to assess the relationship between the provision of efficient municipal services to start-up business enterprises and sustained profitability in start-up business enterprises in the City of Tshwane by using standard econometric procedures that are applicable to panel data analysis. The aim of study was to test the hypothesis that the provision of efficient municipal services to start-up businesses leads to sustained

growth and profitability in newly established SMMEs in Tshwane. One of the specific objectives of study was to estimate economic indicators of sustained profitability in start-up business enterprises operating in and around Tshwane in South Africa.

Literature review

Asah, Fatoki and Rungani (2015) have pointed out that although the South African SMME sector is a key contributor to national economic growth and development, the degree of support provided to the sector has so far been grossly inadequate by international standards. A report issued by the South African Chamber of Commerce and Industry (2016) indicates that 20% of all units exported by South Africa are produced by small and medium-sized enterprises. Although it is generally accepted that growing the SMME sector of the economy is vital for the alleviation of poverty and unemployment, the support provided to the sector since April 1994 has been grossly inadequate (Marivate, 2014). Edoho (2015) has reported that one of the most basic needs of start-up enterprises is the efficient delivery of municipal services. However, Khale (2015) and Marivate (2014) have pointed out that the current high failure rate among start-up enterprises is attributed to inefficient municipal services. Edoho (2015) and Brownson (2014) have found that inefficient municipal services, over-regulation and lack of management, as well as financial skills constitute some of the key barriers to growth and profitability in small businesses. Henrekson (2014) has shown that development assistance programs provided to small enterprises by SEDA are not tailor-made to the needs of SMMEs. Marivate (2014) has found that financial and non-financial assistance programs that are offered to start-up business enterprises are poorly financed, monitored and implemented. The South African SMME sector is characterized by lack of entrepreneurial skills (Edoho, 2015; Worku, 2014; Seeletse, 2012; Asah, Fatoki & Rungani, 2015), over-regulation (Shree and Urban, 2012), too much bureaucracy (Henrekson, 2014), difficulty in securing loans (Brownson, 2014) and poor municipal services (Khale, 2015).

The annual report issued by the South African Chamber of Commerce and Industry (2016) for the financial year 2014/2015 has confirmed that problems of over-regulation and lack of good governance stifle growth and sustained profitability in start-up enterprises. Asah, Fatoki and Rungani (2015) have reported that lack of basic entrepreneurial skills, difficulty in securing loans, cumbersome bureaucracy and corruption hinder profitability in the SMME sector. Edoho (2015) has

argued that it is essential to provide tailor-made skills based training opportunities to aspiring entrepreneurs as a means of addressing the critical shortage of business and entrepreneurial skills among black Africans. Reports published by Khale (2015) and Marivate (2014) have shown that poor service delivery by local governments and municipalities, as well as lack of adherence to good governance principles stifle sustained development in SMMEs.

Based on a 5-year long study of South African SMMEs, Marivate (2014) has found that the South African curriculum does not adequately prepare young graduates for entrepreneurial activities. According to Henrekson (2014), Ladzani & Netswera (2009), Seeletse (2012), Marivate (2014), Brownson (2014), Shree & Urban (2012), Booyens (2011), Bezuidenhout & Nenungwi (2012), Asah, Fatoki & Rungani (2012), Edoho (2015) and Worku (2014), the task of addressing the underlying causes of failure in start-up enterprises operating in various parts of South Africa requires policy-related intervention. A comprehensive review of the literature on South African SMMEs shows that the most notable causes of failure in start-up enterprises are lack of entrepreneurial skills, lack of access to loans, inefficient municipal service delivery, over-regulation, poor leadership, lack of efficiency in enforcing municipal bylaws on SMMEs, failure to adhere to good governance principles, lack of monitoring and evaluation programs, and lack of relevance of government support programs to the operational and developmental needs of start-up business enterprises.

Methods and materials of study

The 3-year long study (2012 to 2014) was funded by the City of Tshwane as a means of assessing the quality of routine municipal services provided to start-up SMMEs. Monthly data were collected from 1,058 SMMEs conducting business in Tshwane (Khale, 2015) by using a structured questionnaire on factors that are known to influence sustained profitability in start-up SMMEs. The businesses in the study were selected from the five geographical zones of Tshwane (central, east, west, north and south). Data were collected by trained enumerators. The perception of business operators on the quality of municipal services provided to them was assessed by using a 5-point ordinal scale. Other data were captured from business records. Standard econometric analyses were performed by using Pearson's Chi-square tests of association (Hair, Black, Babin & Anderson, 2010), the Cox proportional hazards model (Kleinbaum, Kupper, Nizam & Rosenberg, 2013), longitudinal data analysis with multilevel models (Heck & Thomas,

2015) and Marcov Chain Monte Carlo (MCMC) algorithms (Browne & Goldstein, 2010). The statistical package STATA version 14 (Stata Corporation, 2015) was used for data entry and analyses.

Results of study

Table 1 shows the basic socioeconomic characteristics of the 1,058 businesses that were selected for the study. It can be seen from the table that about 60% of businesses were profitable, whereas about 40% of them were not profitable. The table shows that about 20% of entrepreneurs were not satisfied with the quality of municipal services provided to them by the City of Tshwane. About 63% of businesses were operated by men. About 20% of business operators had matric level academic qualifications or less. About 20% of businesses were operated by black entrepreneurs, whereas about 46% of businesses were operated by white entrepreneurs. Nearly 29% of businesses were started with own savings. About 34% of businesses were started with capital ranging from 300, 000 Rand to 500, 000 Rand (about 20, 000 to 34, 000 American Dollars). About 31% of entrepreneurs had attended at least one training opportunity in the past.

Table 1. Socioeconomic characteristics of SMMEs ($n = 1,058$)

Characteristic of business enterprise	Frequency (Percentage)
Profitability	Yes: 631 (59.64%) No: 427 (40.36%)
Geographical location of business in Tshwane	Central: 268 (25.33%) East: 216 (20.42%) West: 198 (18.71%) North: 209 (19.75%) South: 167 (15.78%)
Gender of business operator	Male: 667 (63.04%) Female: 391 (36.96%)
Highest level of formal education	Matric or less: 209 (19.75%) Certificate: 212 (20.04%) Diploma: 236 (22.31%) Bachelor's degree: 322 (30.43%) Master's degree or more: 79 (7.47%)
Ethnic background of business operator	African: 308 (29.11%) White: 487 (46.03%) Coloured: 204 (19.28%) Indian: 59 (5.58%)
Start-up capital in rand	100, 000 or less: 154 (14.56%) 100, 001 to 300, 000: 279 (26.37%) 300, 001 to 500, 000: 356 (33.65%) 500, 001 to 1, 000, 000: 226 (21.36%) More than 1, 000, 000: 43 (4.06%)
Current capital in rand	100, 000 or less: 31 (2.93%) 100, 001 to 300, 000: 302 (28.54%) 300, 001 to 500, 000: 369 (34.88%) 500, 001 to 1, 000, 000: 288 (27.22%) More than 1, 000, 000: 68 (6.43%)
Attendance of past training programs for owners and operators of SMMEs	Yes: 327 (31%) No: 731 (69%)

Age of business in months	Less than 12 months: 71 (6.71%) 13 to 36 months: 212 (20.04%) 37 to 60 months: 489 (46.22%) More than 60 months: 286 (27.03%)
Type of business	Footwear: 214 (20.23%) Textile: 218 (21.31%) Food outlet: 109 (10.30%) Automotive: 28 (2.65%) Accommodation: 47 (4.44%) Minimarket: 59 (5.58%) Convenience store: 146 (13.80%) Internet café: 24 (2.27%) Furniture store: 26 (2.46%) Construction: 46 (4.35%) Transport or tourism: 76 (7.18%) Secretarial services: 19 (1.80%) Hair dressing: 46 (4.35%)
Source of initial capital	Own savings: 302 (28.54%) Family or friends: 309 (29.21%) Loan: 389 (36.77%) Others: 58 (5.48%)
Perception on the quality of municipal services provided to business	Good: 87 (8.22%) Above average: 351 (33.18%) Average: 404 (38.19%) Below average: 102 (9.64%) Poor: 114 (10.78%)

Table 2 compares profitable businesses with non-profitable businesses. The table compares 631 profitable businesses (59.64%) with 427 non-profitable businesses (40.36%) with regards to 6 key predictors of viability in small businesses. The table shows that the perception held by owners and operators of viable businesses were relatively more positive in comparison with the perceptions held by the owners and operators of non-viable businesses with regards to capacity, policy, the suitability of training programmes provided to newly established businesses, the ease of securing loans, entrepreneurial skills and past history of bankruptcy. Viable businesses were operated by owners and managers with relatively higher levels of entrepreneurial skills. Non-viable businesses were characterized by inability to secure loan needed for business operation (65%) and past history of bankruptcy (54%). The corresponding figures for viable businesses were only 27% and 13%, respectively.

Table 2. Comparison of SMMEs with regards to sustained profitability ($n = 1,058$)

Indicator of profitability	Profitable ($n = 631$)	Non profitable ($n = 427$)
Perception on the quality of municipal services provided to newly established SMMEs	Positive: 87% Negative: 13%	Positive: 14% Negative: 86%
Capacity for fulfilling the business and entrepreneurial needs of newly established SMMEs	Adequate: 71% Inadequate: 29%	Adequate: 28% Inadequate: 72%
Policy used for supporting newly established small businesses	Adequate: 56% Inadequate: 44%	Adequate: 31% Inadequate: 69%
Presence of tailor-made training programmes for owners and operators of SMMEs	Adequate: 69% Inadequate: 31%	Adequate: 34% Inadequate: 66%

Table 2 (cont.). Comparison of SMMEs with regards to sustained profitability ($n = 1,058$)

Indicator of profitability	Profitable ($n = 631$)	Non profitable ($n = 427$)
Ease of obtaining loan from money lending institutions	Yes: 73% No: 27%	Yes: 35% No: 65%
Level of entrepreneurial skills of business owners and operators	Adequate: 74% Inadequate: 36%	Adequate: 33% Inadequate: 65%
Past history of bankruptcy	Yes: 13% No: 87%	Yes: 54% No: 46%

Table 3 provides hazard ratios estimated from Cox regression. It can be seen from the table that profitability is influenced by negative perception on the quality of municipal services provided to newly established businesses [hazard ratio = 3.58; $P=0.000$; 95% C. I. = (1.45, 5.46)], inappropriate policy [hazard ratio = 3.19; $P = 0.000$; 95% C. I. = (1.39, 5.28)], and lack of tailor made training programs directed at newly established small businesses [hazard ratio = 2.89; $P = 0.000$; 95% C. I. = (1.24, 4.77)]. The hazard ratios were adjusted for geographical location, age of owner and gender. Adjusted and unadjusted hazard ratios were fairly similar with each other, thereby showing that the estimates were not distorted. The variables negative perception on the quality of municipal service delivery and profitability were negatively and significantly associated with each other ($r = -0.47$). The corresponding values for the variables inappropriate policy and lack of tailor-made training programmes were equal to -0.41 and -0.37.

Table 3. Hazard ratios obtained from Cox regression

Predictor	Hazard ratio	P-value	95% C.I.
Negative perception on the quality of municipal services	3.58	0.000	(1.45, 5.46)
Inappropriate policy	3.19	0.000	(1.39, 5.28)
Lack of tailor made training programmes	2.89	0.000	(1.24, 4.77)

The adjusted hazard ratio of the variable “negative perception on the quality of municipal services” is 3.58. This shows that businesses that were owned or operated by people with a negative perception on the quality of municipal services provided to newly established businesses were 3.58 times as likely to fail in comparison with businesses that were owned or operated by people with a positive perception on the quality of municipal services provided to newly established businesses. The adjusted hazard ratio of the variable “inappropriate policy” is 3.19. This shows that businesses that were owned or operated by people with the perception that the City of Tshwane was implementing inappropriate policy on the growth and development of newly established SMMEs were 3.19 times as likely to fail in comparison with businesses that were owned or operated by people with the perception that the City of Tshwane was implementing an appropriate policy

on the growth and development of newly established SMMEs. The adjusted hazard ratio of the variable “lack of tailor made training programs” is 2.89. This shows that businesses that were owned or operated by people with the perception that the City of Tshwane did not have a tailor made training program for newly established SMMEs were 2.89 times as likely to fail in comparison with businesses that were owned or operated by people with the perception that the City of Tshwane has a tailor made training program for newly established SMMEs”.

Results obtained from Makov Chain Monte Carlo (MCMC) algorithms

Makov Chain Monte Carlo (MCMC) algorithms (Browne and Goldstein, 2010) were used for performing bootstrapping simulations. MCMC algorithms are used for solving multilevel problems that involve the construction of constrained variance matrices in cases where linear estimation techniques fail to produce theoretically reliable estimates of parameters. MCMC algorithms are used extensively as part of Bayesian analysis. Table 4 shows adjusted regression coefficients estimated from MCMC algorithms.

Table 4. Adjusted linear regression coefficients estimated from MCMC algorithm

Predictor variable	*Adjusted linear regression coefficient	95% confidence interval	P-value
Negative perception on the quality of municipal services	1.29	(0.79, 3.41)	0.000
Inappropriate policy	1.18	(0.76, 3.39)	0.000
Lack of access to tailor made training programs	1.08	(0.64, 3.27)	0.000

The estimates obtained by using MCMC algorithms and Bayesian analysis were fairly similar to estimates obtained from panel data analysis.

Discussion of results

The study has shown that about 40% of the 1,058 businesses in the study were not profitable. All in all, about 20% of entrepreneurs in the study were not satisfied with the quality of municipal services provided to them by the City of Tshwane. The results showed that 87% of viable businesses were satisfied with the quality of routine municipal services that were provided to them by the City of Tshwane. The corresponding figure for non-viable businesses was only 14%. Viable businesses were run by owners and operators who felt that the quality of municipal services provided to newly established SMMEs was generally satisfactory, whereas non-viable SMMEs were run by owners and operators who felt that the quality of municipal

services provided to newly established SMMEs was not satisfactory. In general, the perception held by owners and operators of viable businesses were relatively more positive in comparison with the perceptions held by the owners and operators of non-viable businesses with regards to the quality of municipal service delivery, capacity, policy, the suitability of training programs provided to newly established businesses, the ease of securing loans, entrepreneurial skills and past history of bankruptcy. Viable businesses were operated by owners and managers with relatively higher levels of entrepreneurial skills. Non-viable businesses were characterized by inability to secure loan needed for business operation (65%) and past history of bankruptcy (54%). The corresponding figures for viable businesses were only 27% and 13%, respectively.

Results obtained from panel data analysis and Bayesian analyses showed that failure in newly established small businesses was significantly influenced by 3 predictor variables. These 3 influential predictor variables were: negative perception on the quality of municipal services provided to newly established businesses [hazard ratio = 3.58; $P=0.000$; 95% C. I. = (1.45, 5.46)], inappropriate policy [hazard ratio = 3.19; $P=0.000$; 95% C. I. = (1.39, 5.28)], and lack of tailor made training programmes directed at newly established small businesses [hazard ratio = 2.89; $P=0.000$; 95% C. I. = (1.24, 4.77)], in a decreasing order of strength. The study has shown how detrimental poor municipal service delivery and inappropriate policy are to start-up SMMEs in Tshwane. Findings of the study call for policy-related intervention by the City of Tshwane. The natural remedial action is to ensure the provision of readily accessible, user-friendly, transparent, objective, accountable, fair and highly efficient municipal services to start-up SMMEs operating in all parts of Tshwane.

The proportional hazards assumption made in Cox regression was tested for validity by using log-minus-log plots (Kleinbaum, Kupper, Nizam & Rosenberg, 2013). Findings obtained from the study are in agreement with results reported by Ladzani and Netswera (2009), Seeletse (2012), Marivate (2014), Brownson (2014), Henrekson (2014), Shree and Urban (2012), Booysens (2011), Bezuidenhout and Nenungwi (2012), Asah, Fatoki and Rungani (2012), Worku (2014) and Edoho (2015).

Recommendation

The study has found that the majority of non-profitable start-up businesses in the study were characterized by the perception of poor municipal service delivery. As such, it would be in order for the City of Tshwane to improve the quality of routine municipal services that are required by start-up businesses with a particular emphasis on businesses that are poorly organized. Findings reported by Khale (2015), Marivate (2014) and Edoho (2015) indicate that it would be appropriate for the City of Tshwane to ensure the provision of readily accessible, user-friendly, transparent, objective, accountable, fair and highly efficient municipal services to start-up enterprises that operate in all parts of Tshwane. In light of findings reported by Asah, Fatoki and Rungani (2015), it would be prudent for the City of Tshwane to provide skills based and tailor-made training programmes to employees whose duty is to interact with operators and owners of SMMEs. Such training programs must be conducted on a continuous basis, and must be carefully monitored and evaluated by officials of the City of Tshwane. Key principles of good governance such as accountability, transparency and objectivity must be promoted with vigour as a means of improving the quality of municipal services that are provided to operators and owners of SMMEs.

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