

Informal Development and Involuntary Employment

Chris William Callaghan

*School of Economic and Business Sciences, University of the Witwatersrand,
Johannesburg Gauteng, Republic of South Africa 2050
Telephone: +27 11 717 8066; Fax: +27 11 717 8081
E-mail: chris.callaghan@wits.ac.za*

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ABSTRACT A fundamental differentiation of the informal sector, and the inner city street trader sector, from the corresponding formal sector might be taken to exist on the basis of the inherently involuntary nature of much informal employment. Using data from a street trader upliftment research project undertaken in 2008, 2009 and 2010, Pearson parametric, Spearman non-parametric and hierarchical linear regression tests were used in a cross-sectional exploratory research design to investigate the extent to which gross earnings, different types of product provision or biographic factors contribute to continuance satisfaction. Traders who earn less, are the most vulnerable to a context of relatively involuntary work, were found to be the most dissatisfied with continuing in street trading. It is recommended that policy makers empower such traders to increase the capital intensity of their offerings, or to rather provide services in this context of both extrinsic and intrinsic scarcity.

INTRODUCTION

South Africa is exposed to a broader context of globalisation, characterised by de-industrialisation and tertiarisation (Ligthelm 2006). Due to these changes, on a global scale, the structural changes in economies have resulted in a change to more service-oriented economies, which have led to an effective decrease in the demand for unskilled labour (Ligthelm 2006). Globally, the era of tripartite alliances between business, labour and the state has typically been supplanted by a focus instead upon more localised relationships based upon partnerships and reflexive self-organisation, as the era of Keynesian welfare national state policies has been superseded by the Shumpeterian workfare post-national regime (Jessop 2002: 460). However, the context of Johannesburg remains a paradox. According to Schoeman et al. (2010), the influence of high levels of labour market regulation have produced a paradoxical context in which positive economic growth co-exists with reasonably low interest rates and reasonably low levels of inflation yet also with relatively high levels of unemployment. It is within this context that these effects combine to the disadvantage of the unskilled individual in such a society. While in South Africa 'labour' and 'government' might dominate the societal landscape in a manner that is counter to Jessop's (2002) posited global trends, it has been argued that interventionist policies such as heavily regulated labour markets significantly reduce the structural ca-

capacity of the economy to employ people, especially unskilled people (Schoeman et al. 2010). A further disadvantage faced by such people is the global trend toward tertiarisation and de-industrialisation which has seen a marked decrease in the demand for unskilled persons as work becomes more service-oriented (Ligthelm 2006). Such changes have been compounded by shortages of skilled workers in South Africa as the national education and training system has failed to deliver such skills (Rasool and Botha 2011). Faced with the difficulties associated with finding work in the formal sector, and also faced with the prospect of unemployment, one of the few options available to such unskilled individuals is work in the informal sector. The South African informal labour sector currently employs about 6.2 million people and 32.8% of the country's potential work force, in contrast to the formal sector, with 12.7 million people in officially recorded employment (Adcorp 2012). Informal sector employment is increasing as part of a long term trend that has seen the employment of highly skilled workers in the formal sector increase yet has also seen the employment of low- and semi-skilled workers decrease (Adcorp 2012). Informal work is therefore an important component of work within the Southern African economy. Despite controversy about the informal sector and its fundamental nature, seminal theorists have argued that the sector has a role, whereby individuals can develop entrepreneurial skills and develop their enterprises into formalised ventures (De Soto 1989). Not-

withstanding debates about the fundamental nature of the informal sector, one aspect of the experience of informal work is clear and uncontested: for many informal participants informal work is an involuntary form of work. It is argued in this research that the involuntary nature of such work presents an atypical context, in which the predictions of theory developed in, and tested in, formalised work contexts, are not necessarily generalisable into such a context.

This research therefore extends current research that relates to the informal sector in different contexts (see, for example, Celik 2011; Raveendran 2011; Sinha and Roever 2011; Streetnet International 2011) into an area of study that represents a gap in the literature; the satisfaction of street traders with continuing in street trading, or continuance satisfaction. Informal sector work, in this study, is framed as 'involuntary work' because of the large proportion of traders that are 'marginalist' and for whom there is no other employment alternative, in a context of high unemployment (Callaghan and Venter 2011). It is acknowledged that it is not, strictly speaking, involuntary in nature, as these traders also have the option of not working at all. However, the term is used here in order to differentiate this form of work from other forms of work. From a normative perspective, it is further argued that research into satisfaction in such a context of 'involuntary' work is imperative, as the burden on the people that work in this sector in terms of working conditions is incommensurable with that of formal work and the protections typically afforded to the latter (Bendix 2001). The research problem is introduced as follows.

Research Problem

This research seeks to specifically investigate how satisfaction can be increased for individuals that work in this context of relatively 'involuntary' work in the Johannesburg inner city street trading context. Continuance satisfaction, in this context, is defined as the satisfaction that an individual has with continuing in street trading. To the extent that such work is involuntary for many informal participants, what is not clear is the extent to which continuance satisfaction, or the satisfaction of a street trader with continuing in street trading, contributes to informal outcomes or what anteced-

ents predict or shape this satisfaction in this context. While extensive literature exists that relates satisfaction to behaviour in the formal context (see, for example, Chen et al. 2011; Organ 1977; Organ 1988), absent from the literature is theory or empirical evidence that relates to the relationships of continuance satisfaction in this specific context associated with involuntary employment. This deficiency in the literature is addressed in this research. The study fundamentally follows the perspective of (Chen et al. 2011) who stress that satisfaction 'momentum' or the changes in satisfaction over time are an increasingly important aspect of current research in this field, in that a longitudinal perspective is preferable to the static relationships investigated in much of satisfaction research. This study will attempt to demonstrate the current status of the structure of relationships around satisfaction in this context. Theoretical and practical recommendations will be derived from the analysis. The problem addressed by this research is therefore to provide further insight into the relationships continuance satisfaction, in the absence of literature that relates contextual factors (that capture aspects of the experience of street trading) to satisfaction in the specific Southern African informal context. An exploratory quantitative research study is therefore undertaken. The research question posed by this investigation is: *what informal street trading factors potentially influence continuance satisfaction in the inner city street trading context?* Three sub-ordinate research questions are derived from this core research question:

- *What is the relationship between categories of product sales and continuance satisfaction?*
- *What is the relative contribution of earnings to continuance satisfaction over time in this context?*
- *What is the potential influence of biographical factors upon continuance satisfaction in this context?*

Objective of the Research

The specific objectives of this research are to test theory that relates continuance satisfaction, or the satisfaction of a trader with continuing in street trading, to product provision; to earnings; and to certain biographical factors in this

context. The rationale behind such variables tested is that earnings are the extrinsic counterpart to intrinsic aspect of trading that is represented by satisfaction. Whereas an extrinsic return has been found to exist in this sector; initial investment is typically associated with higher earnings (Callaghan 2012), what is not clear is what contributes to higher levels of continuance satisfaction in this context. In other words, what aspects of such work yield an intrinsic return to such people? In a context of resource scarcity, it is argued that knowledge of the satisfaction of such people with continuing in street trading can potentially be used for the upliftment of these people. In this paper, evidence is provided that such a notion is plausible.

The paper is structured as follows. First, relevant theory and empirical findings from the broader literature are considered and hypotheses are derived. Then, the research methodology applied is discussed. Thereafter, the results are reported and discussed with specific reference to the hypotheses. The paper concludes with an outline of the findings and recommendations for theory, practice and further research are offered. Theory and evidence from the literature is considered as follows.

Theory and research findings have established that job satisfaction is typically negatively associated with intentions to not continue in jobs, or turnover (Chen et al. 2011). If a street trader faces few alternatives to continuance, then continuance satisfaction or the satisfaction with continuing in street trading might be a salient aspect of street trading practice, as a component of such continuance is therefore not entirely voluntary.

Theory and Hypotheses

By addressing these research questions this research seeks to add value to the informal literature and contribute to an improved understanding of satisfaction and the relationships around it in what might be an atypical work context. Further, as already indicated, it is argued that insight into satisfaction is particularly salient in this working context because it is one of few contexts into which unemployed people can enter work itself. Such people are perhaps vulnerable to an atypical context of work. It is argued that not only are they faced with resource,

or extrinsic scarcity, but that they are also perhaps faced with intrinsic scarcity. Such work, then, might be associated with a double burden, of sorts, if such individuals were found to be less satisfied with continuing in street trading if they earned less.

Given that informal employment comprises a significant portion of economic activity in South Africa (Ligthelm 2006), a significant portion of the country's population therefore are exposed to informal work. As the economic hub of the country, the Johannesburg context reflects this dynamic. About 1.6 million South Africans are active in the informal sector on either a full-time or a part-time basis (Ligthelm 2006), and about 5000 to 8000 traders are estimated to ply their trade in and around Johannesburg (Van Rooyen and Antoniedies 2007).

Satisfaction, Type of Work and Earnings

If certain segments of this sector do indeed undertake such enterprise as 'involuntary' or survivalist enterprise then the satisfaction dynamics of such a context might not conform to theory and research evidence derived from other contexts. According to the seminal satisfaction literature certain characteristics of the job can be associated with motivation and higher levels of effective job performance (Hackman and Oldham 1976; Herzberg 1966). According to the predictions of such theory differences in the type of work an individual engages in will be expected to reflect in differences in individual motivation and job performance. Therefore satisfaction differences (which are expected to reflect an individual's morale, or satisfaction with continuing in street trading at a point in time) in individuals working in formal sectors will be expected to be associated with differences in their type of work. The extent to which these predicted relationships generalise into this context is, however, unclear. According to Herzberg (1966), the factors associated with a type of work are primarily differentiated into 'hygiene factors' and 'motivators' or motivator factors. The former refer to factors that are essentially more extrinsic to the job, such as working conditions and remuneration, and the latter refer to factors that have a more intrinsic influence upon the individual, and that are more likely to be associated with satisfaction and motivation (Herzberg 1966). The extent to which

work is less repetitive and more varied, with a greater range of tasks, or job enlargement, such work might be more likely to be associated with satisfaction (Herzberg 1966). According to activation theory the effect of job enlargement upon work processes will be expected to be associated with higher levels of job performance and positive affect (Scott 1966). The implication of this is that variety or complexity associated with the task itself might have an intrinsic influence upon productivity and satisfaction that is greater than the influence of external or extrinsic factors (Scott 1966). In terms of repetitive work, individuals have been found to respond to chronic states of under activation in work contexts through a process of arousal-enhancing behaviours (Scott 1966). However, such behaviours have also been found to be associated with negative effects on work effectiveness (Scott 1966). According to Scott (1966), performance can decrease on monotonous tasks and increase on more complex tasks in ways associated with the nature of the task itself. To the extent that certain of the jobs of street trading might be less or more complex, this body of theory predicts that performance is expected to be associated with higher levels of job enrichment or enlargement associated with a certain job. Higher levels of positive affectivity and morale will be expected to be reflected in measures of continuance satisfaction. Therefore the following hypothesis is offered: Hypothesis 1, *that there is a positive and significant association between product sales category and continuance satisfaction*. However, what is unclear in this context is the extent to which remuneration, or earnings, which represents an extrinsic factor, following Herzberg's (1966) logic, contributes to continuance satisfaction, which is a factor that is expected to be more associated with intrinsic factors. This research also provides a test of Herzberg's (1966) theory, in that the extent of the contribution of earnings (essentially a hygiene factor) to continuance satisfaction in this context is empirically tested. The seminal theory of Organ (1977, 1988) predicts that satisfaction is a necessary condition for extra effort to be invested in tasks, which results in increased performance in work contexts. According to Organ (1977, 1988), however, such extra effort can be 'withdrawn' from work if an individual experiences dissatisfaction. Meta analysis findings have been found to support the relation-

ship between Job Satisfaction and Job Performance (using 312 samples with 54 417 respondents), with a mean true correlation between overall Job Satisfaction and Job Performance of .30 (Judge et al. 2001). Recent meta-analysis evidence supports the association between extrinsic earnings and Job Satisfaction, with pay levels found to be correlated .15 with Job Satisfaction across 92 independent samples (Judge et al. 2010). The following hypothesis is therefore also offered: Hypothesis 2, *that there is a significant association between earnings and continuance satisfaction*. In terms of understanding the associations of continuance satisfaction in this context, literature relating to changes in levels of satisfaction along different loci suggests that satisfaction levels are not constant over age, but change over an individual's lifetime, or stage of life. A positive association between age and different loci of satisfaction have been found in different contexts (Blanchflower and Oswald 2008; Kallenberg and Loscocco 1983). Work satisfaction has also been found to be predicted by a range of factors associated with the individual, over and above the influence of the organisational context (Judge and Bono 2001). Hypothesis 3 is therefore tested: *that continuance satisfaction is significantly and positively associated with certain biographical factors*.

Human Capital, Age and Satisfaction

Human capital measured along the dimension of education has been found to be associated with increased earnings, and also employability, and if returns to human capital are higher in larger organisations (Becker 1975[1964]) the formal sector would be expected to offer higher returns to education than the informal street trading context. A greater endowment of education would be expected to enable street traders to exit the sector for other opportunities, including formal sector work to a greater relative extent than other traders. To the extent that traders with relatively higher levels of education are aware of their relatively greater opportunities in formal sector employment, such traders are expected to have lower levels of satisfaction with continuing in street trading. Evidence has long suggested that individuals with relatively higher levels of education are typically more dissatisfied in occupations that do not offer rewards

that aligned with their expectations (Vollmer and Kinney 1955). However, the negative association found between over-education, or “working in a job that requires a lower level of education than one’s own” and job satisfaction has not been found to be significant (Allen and van der Velden 2001:445). Similarly, the converse (under-education) and mismatches between an individual’s field of education and job have also been found to be unrelated to job satisfaction (Allen and van der Velden 2001). Hypothesis 3.a. is therefore proposed: *that there is a significant association between continuance satisfaction and levels of formal education.* According to Kallenberg and Loscocco (1983), job satisfaction is lower in the middle ranges of age, with higher levels of job satisfaction being found at the extremes. The association between job satisfaction and age, if represented graphically, displays a ‘u’ shape, where job satisfaction is plotted on the vertical axis and age on the horizontal axis (Kallenberg and Loscocco 1983). Similarly, Blanchflower and Oswald (2008) offer empirical evidence that psychological well being or satisfaction can be represented as a u-curve over age, over the world. In American males, happiness is at its lowest part of the ‘u’ curve in the early fifties; in American females, in the late thirties; yet for European men and women is lowest at about the mid-forties (Blanchflower and Oswald 2008). According to Blanchflower and Oswald (2008) the minimum value of this curve for South Africans in general is found to be about forty-two years of age. Age has also been found to be positively associated with life satisfaction (Ardelt 1997). Due to the evidence of a ‘u’ shaped relationship for satisfaction according to different foci of satisfaction over age in different contexts (Blanchflower and Oswald 2008; Kallenberg and Loscocco 1983), hypothesis 3.b. is therefore offered: *There is a significant association between age and continuance satisfaction.* The methodology of the study is considered as follows.

MATERIAL AND METHODS

This study applies an exploratory cross-sectional research design applied to data from three different years. Chen et al. (2011) stress that satisfaction ‘momentum’ or the changes in satisfaction over time are an increasingly important aspect of satisfaction research, because

cross-sectional research on satisfaction cannot indicate whether satisfaction is trending upwards or downwards at such a point in time. According to Chen et al. (2011), the nature of the satisfaction relationships might be substantively different between these two orientations: of an upward versus a downward trend. This research therefore applies this principle, and a longitudinal perspective is obtained from the use of three samples from the years 2008, 2009 and 2010. Three data sets from the ‘Street Trader Upliftment Programme’, a research programme focussed on collecting extensive data for street trader research, are used. These data sets represent data sampled in 2008 (n=339), 2009 (n=308) and 2010 (n=303) from the Johannesburg inner city street trading population. The core inner city trading context was differentiated from surrounding areas, and delimited to the area between Plein, End, Faraday and Sauer streets. Using random number tables, about a ten percent sample of the 228 blocks was demarcated and the traders on the corner of these blocks were counted. This enabled an estimation of this inner city street trading population, of about five thousand traders. A sample size calculation was used. On the basis of the sample size calculation, three hundred respondents were set as a targeted number of respondents for these three studies. Ethical principles were followed. Any indication of potential refusal was respected. Due to refusal rates experienced in piloting, claims are only made on the basis of convenience sampling. Correlation analysis is used to test the significance of associations between continuance satisfaction and informal sector outcomes and contextual factors. Statistical tests include Pearson’s correlation testing as a parametric measure of associations and for the purposes of increased validity Spearman’s rho measures were also taken. Hierarchical linear regression analysis was used to investigate the contribution of earnings to the variance associated with continuance satisfaction whilst controlling for a range of covariate factors. In Table 1, comparative means are shown for the 2008, 2009, and 2010 data, for a range of informal factors. Factors tested for their associations with continuance satisfaction included earnings (measured as gross earnings from sales per day); levels of formal education (measured as years of formal education); age (measured in years); and a range of product categories. The results

of the hypothesis testing are discussed as follows under the headings relating to each hypothesis. The findings are reported and discussed as follows.

Table 1: Comparative descriptive statistics: Means by sample

Variables	2008	2009	2010
GYB/Other training	.17	.18	.09
Gender*	.57	.67	.62
Age (years)	32.7	31.4	34.1
Years in Johannesburg	9.7	9.3	10.7
South African origin*	.44	.40	.41
Johannesburg origin*	.12	.14	.08
Hours worked per day	10.2	10.5	10.7
Days worked per week	6.19	6.36	6.4
Initial Investment**	428	398	1181***
Tertiary education*	.12	.10	.15
Total years of education	-	10.17	9.9
Experience** (years)	4.23	5.9	6.4
Rental stand*	.41	.47	.41
Continuance satisfaction	4.28***	8.97	6.8
Earnings per day (rands)**	161	262	352

Notes: * indicates binary variable. ** indicates upper limit to measure *** indicates different upper limit to measure therefore not comparable to other data sets

Limitations of the Study

Although the study attempted to provide a longitudinal perspective of the tested relationships, it is acknowledged that the xenophobic violence of 2008 (Neocosmos 2008) might have influenced the underlying structure of the associations of satisfaction in this context. Further, it is acknowledged that empirical, or quantitative testing cannot provide causal understandings of such intrinsic relationships such as those around Continuance satisfaction, but can merely test theory in a specific context. It is therefore recommended that further qualitative research be undertaken in this context, in order to develop theory that specifically relates to this context.

RESULTS

The results are reported as follows. The discussion of these results follows in Section IV.

Null-Hypothesis 1. There is no significant association between continuance satisfaction and product provision.

2008. Traders selling clothes were found, according to the 2008 data, to be significantly less satisfied with continuing in street trading. However, traders selling shoes were found to report higher levels of continuance satisfaction.

2009. According to the 2009 data, traders selling vegetables and fruit were found to report significantly higher levels of continuance satisfaction.

2010. Hair braiding was found to be significantly associated with higher levels of continuance satisfaction for respondents in 2010. Lower capital intensive product provisions were found to be significantly associated with lower levels of continuance satisfaction according to the 2010 data. Traders selling clothing were found to report higher levels of continuance satisfaction, although this association was not significant at within the five percent level of significance. According to the 2010 data traders selling food were found to report higher levels of continuance satisfaction, although this association was also found to be significant at just outside of the five percent level of significance.

Null- Hypothesis 2: There is no significant association between earnings and continuance satisfaction. Earnings were found to be significantly associated with continuance satisfaction across 2008, 2009 and 2010 (Table 2). Similarly, when the covariates were included in the multiple linear regression analysis earnings was found to be a significant predictor of Continuance Satisfaction across all three years. The inclusion of the earnings variable in the equation resulted in an increase in the variance explained in the dependent variable (Continuance Satisfaction), as the adjusted r^2 value was found to increase from .06 to .10 for the 2008 data; from .01 to .05 for the 2009 data; and from .03 to .06 for the 2010 data.

Table 2: Continuance satisfaction: Spearman Rho correlations

Variables	2008	2009	2010
<i>Continuance Satisfaction with:</i>			
Age	.10 [^]	.16**	.10 [^]
Years in Johannesburg	.25**	.21**	.16**
Johannesburg origin [#]	-	.10 [^]	-
Gender	-	-	-
Hours worked	.14	-	-
Days worked per week	-	-	-
Initial Investment	-	-	-
Total Education	-.13*	-.11 [^]	-.11 [^]
Tertiary Education [#]	-.15**	-	-
Experience	.24**	.26**	.22**
Training Attendance	-	-	-
Rental Stand [#]	-	.10 [^]	.12*
Earnings per day	.21**	.25**	.23*
South African origin	-	-	-

Notes: for the 2008 data n=339; 2009 n=308; 2010 n=302. Significance: p<0.05*; p<0.01**p<0.10[^].

[#] Represents Pearson point biserial correlations.

Null-Hypothesis 3.a. There is no significant association between continuance satisfaction and levels of formal education. According to the Spearman Rho tests of association (Table 2), continuance satisfaction was found to be significantly and negatively associated with total education and tertiary education in the 2008 data and weakly and negatively associated with total education in the 2009 and 2010 data (at just outside the five percent level of significance). The total education variable was found to be a significant predictor of continuance satisfaction for the 2008 and 2010 data (Table 3).

Table 3: Hierarchical linear regression analysis: The extent to which earnings adds to satisfaction after the effects of other factors are controlled for

	2008	2009	2010
Order of capture	.01/ .01	.01/ .01	.01/ .01
Training	.10/ .01	-.26/ -.49	.26/ .16
Gender	-.23/ -.24	-.22/ -.11	.07/ -.07
Age	-.02/ -.02	.02/ .01	.01/ .01
Years in city	.07**/.07**	.02/ .02	.01/ .02
South African origin	-.13/ -.19	-.45/ -.67	.25/ .42
Johannesburg origin	-.36/ -.38	.75/ .76	-.02/ -.07
Hours worked	.24*/.19*	.01/ -.05	.01/ -.01
Initial investment	.07*/.04	-.01/ -.05	.01*/.01
Total education	-.35*/-.38*	-.09/ -.09	-.09*/-.10*
Rental stand	.05/ .01	.79^/.64	.52*/.51^
Earnings	-/ .06*	-/ .05***	-/ .01**
R squared value	.09/ .13	.04/ .09	.06/ .09
Adjusted R squared	.06/ .10	.01/ .05	.03/ .06
Standard error	3.11/3.04	3.40/3.32	2.52/2.48
Significance	.01/ .01	.35/ .01	.07/ .01

Notes: ^p<.10 *p<.05**p<.01***p<.001. 2008 n=339; 2009 n=308; 2010 n=303

Null-Hypothesis 3.b. There is no association between continuance satisfaction and age. According to the Spearman Rho tests of association, continuance satisfaction was found to be significantly associated with age in the 2009 data, and weakly (at just outside the five percent level of significance) associated with age in the 2008 and 2010 data (Table 2). In the multiple linear regression analysis, age was not found to be a significant predictor of continuance satisfaction when tested together with the covariates.

DISCUSSION

Null-Hypothesis 1. There is no significant association between continuance satisfaction and product provision. According to Hackman and Oldham (1976), the nature of an individual's

work can predict an individual's satisfaction with such work. For the 2008 sample traders selling clothes are found differ significantly according to levels of continuance satisfaction. These traders are found to be relatively more dissatisfied than other traders, according to Mann-Whitney tests ($p<.009$). These traders are found to be significantly more recent arrivals in the city ($p<.0001$) and are also found to earn significantly more than other traders ($p<.031$). In 2009, however, these traders are found to differ from other traders only in terms of working significantly less hours per day ($p<.005$). Traders selling clothing in 2010 are found to be weakly associated with higher levels of continuance satisfaction ($p<.093$). These traders are also found to earn significantly more than other traders in 2010 and to have significantly higher levels of initial investment ($p<.027$). Due to the significant associations between continuance satisfaction and product provision the null-hypothesis is rejected and the alternative hypothesis is accepted. In 2009 traders selling vegetables and fruit are found to have significantly higher levels of continuance satisfaction and to work significantly more hours and days a week than other traders. However, these traders are also found to have significantly lower levels of formal education and more years of experience in street trading. These traders are found to earn significantly more than other traders. Traders selling fruit, however, without also selling vegetables, are found to also work more hours a day yet are not found to be more satisfied nor to earn significantly more than other traders. In 2010 these associations are not found to be significant, although traders selling vegetables and fruit are found to work significantly longer hours. Traders selling shoes in 2008 are found to be significantly more satisfied with continuing in street trading ($p<.004$), although these traders in 2008 are not found to earn significantly more than other traders. In 2010 traders selling shoes are found to not be more or less significantly satisfied with continuing in street trading. However, these traders are found to earn significantly more than other traders and to also have significantly higher levels of initial investment. They are also found to have spent significantly less time in Johannesburg than other traders. In 2010 traders selling food are found to be weakly associated with higher levels of continuance satisfaction ($p<.088$), although these trad-

ers are found to work more hours per day. A category was included across all three years that included traders that sold goods that were associated with a lower level of capital intensity. Included in this category were sales of sweet, cigarettes, snacks and other items.

Although not significantly associated with continuance satisfaction in neither 2008 nor 2009 this measure was found to be negatively and significantly associated with continuance satisfaction in 2010 ($p < .033$). These traders are also found to be significantly more likely to have entered the sector more recently and to earn significantly less than other traders. In 2010 traders offering hair-braiding services are also found to be associated with higher levels of continuance satisfaction. This variable was, however, not found to be significantly associated with continuance satisfaction in the analysis of the data from the previous years. The seminal thesis offered by Hackman and Oldham (1976), that different types of work processes can result in different satisfaction effects, is found to be supported in this context. A limitation of this study is that data was drawn from extensive data sets, and that the specific focus of the data collection process at the time was not focused on explicitly investigating the complete structure of relationships around product provision in the sector. Nevertheless, these findings indicate that in the most recent data product sales of relatively lower capital intensity are associated with more dissatisfaction with continuing in street trading. This finding supports the notion that traders with lower capital intensive product offerings, if these traders are taken to represent traders with lower access to resources (and hence lower access to other alternatives than informal street trading), are more likely to be dissatisfied in a particularly involuntary work situation. Traders with product provisions of higher capital intensity might be more satisfied due to the wider range of options available for individuals with more access to resources.

Null-Hypothesis 2: *There is no significant association between earnings and continuance satisfaction.* This hypothesis was derived from the research question which sought to establish the relative extent to which earnings contribute to continuance satisfaction over time. According to the non-parametric analysis satisfaction is significantly associated with earnings across the years 2008, 2009 and 2010. A further analy-

sis of the data using hierarchical regression analysis was undertaken to establish the extent to which earnings contributed to continuance satisfaction for each of these three years. While controlling for the effects of all the covariate variables, the net contribution of earnings to satisfaction was tested. The multiple linear regression model for the 2010 data was run with all the control variables and with continuance satisfaction as the outcome variable. On the basis of the literature the following factors were included in the model: order of capture, exposure to entrepreneurial training, gender, age, years spent in Johannesburg, South African origin, Johannesburg origin, hours worked per day, initial investment, total education, rental stand operation and earnings. Hierarchical regression was then applied, and the control variables were first included. Then earnings as a variable was added and the differences in the variance explained by the entry of earnings into the equation for each year was reported. On the basis of a visual inspection the 2008 model the histogram associated with the dependent variable was judged to reasonably reflect a normal distribution. The probability-probability plot reflected little deviation from the linear form. The condition indices, variance inflation factors and tolerance values were inspected for potential multicollinearity. Other diagnostics were inspected. The multiple linear regression models were deemed to meet the assumptions required. The results of the hierarchical linear regression analysis process for the years 2008, 2009 and 2010 are reported in Table 3. In this table the first value in each block is that for the coefficient for the model without earnings, and the second value is that for the coefficient for the model with earnings included. For the 2008 model the standardised coefficient for earnings is the second largest (.215). The standardised coefficient of years in Johannesburg is the largest (.221) with the third largest in absolute value being total education (-.140). The inclusion of earnings is found to result in an increase of .039 or about 4% of the total variance associated with continuance satisfaction, and about 39% of the total variance explained by the model.

The 2009 model has a standardised coefficient for earnings, which is the largest, of .253. The next highest standardised coefficient is -.096 for South African origin, followed by .094, for the rental stand variable. In this model earn-

ings is found to contribute 4.9% of the total variance of the model and 92% of the variance associated with continuance satisfaction in the model. The standardised coefficient for earnings in the 2010 model is the largest (.200). The next largest standardised coefficient (in absolute value) is found for total education (-.136) followed by rental stand operation (.102).

For the 2010 data earnings is the largest contributor to explained variance in continuance satisfaction, with a contribution of about 3.1% of the total possible variance, and about 55% of the variance associated with continuance satisfaction of the model itself. An increase in the contribution of earnings to continuance satisfaction might have occurred in the sector between the years 2008 and the subsequent years. On one hand, the relative increase in the association between earnings and continuance satisfaction might indicate a context that is becoming more extrinsically oriented. On the other hand, however, this might indicate a context in which other factors such as years in Johannesburg might no longer have an effect in discriminating between those with more time in the sector and those with less. One overarching finding stands out, however: that continuance satisfaction is largely a function of earnings in the sector. It is possible that, to the extent that higher levels of earnings might offer such traders more choices, individuals that are in a more involuntary state of work are more dissatisfied.

Null-Hypothesis 3.a. *There is no significant association between continuance satisfaction and levels of formal education.* According to the results of the multiple linear regression analysis total education is negatively associated with continuance satisfaction for both the 2008 and 2010 data. However, this association is not significant for 2009. This finding supports the notion that whereas work in larger organisations in the formal sector typically is associated with a return on education (Becker 1975[1964]), this might not necessarily hold for the informal street trading context to the same extent. Individuals aware of the differential between such earnings by sector that are relatively more endowed educationally are expected to be more dissatisfied with continuing in street trading.

Null-Hypothesis 3.b. *There is no association between continuance satisfaction and age.* For the 2009 data, the Spearman Rho correlation statistic is found to return a significant as-

sociation between age and continuance satisfaction. This association is found to also be significant in tests of the 2010 data by both the Pearson's and the Spearman tests. This finding is found to support conceptions of a positive association between age and satisfaction across different loci (Ardelt 1997; Blanchflower and Oswald 2008; Kallenberg and Loscocco 1983). The non-significance of the associations between continuance satisfaction and age in the multiple linear regression analysis is not taken to reflect the bivariate relationship between age and continuance satisfaction. The bivariate relationship is considered the more appropriate measure, as it also encapsulates all the intangible aspects associated with age.

CONCLUSION

The following research questions were posed by this study.

- *What is the relationship between categories of product sales and continuance satisfaction?*
- *What is the relative contribution of earnings to continuance satisfaction over time in this context?*
- *What is the potential influence of biographical factors upon continuance satisfaction in this context?*

Of all the factors tested as covariates to the relationship between continuance satisfaction and earnings none was found to contest the dominance of earnings as the primary contributor to continuance satisfaction in this context. If earnings dominate continuance satisfaction in this context then it might be possible that, to the extent that earnings enable choice, individuals that have fewer choices are found to be less satisfied. Hence, those most vulnerable to conditions of deprivation or resource scarcity are also found to be least satisfied with continuing in street trading.

It is therefore concluded that different types of work in this context are more satisfying, and that of all the factors tested as covariates to the relationship between continuance satisfaction and earnings none was found to contest the dominance of earnings as the primary contributor to continuance satisfaction in this context. If earnings dominate continuance satisfaction in this context then it might be possible that, to the extent that earnings enable choice, individu-

als that find themselves in an involuntary work context to a greater extent might be more dissatisfied. If earnings are a dominant determinant of continuance satisfaction then the implication of this is that along the dimensions tested in this research an extrinsic factor dominates. To the extent that real 'motivator' factors derive primarily from intrinsic aspects of work, and not primarily from extrinsic factors such as earnings, further research is suggested into the relative role of extrinsic versus intrinsic in their contribution to satisfaction and motivation. Although this research did not expressly consider the role of more intrinsic factors, these findings do indicate that continuance satisfaction, which is expected to be more strongly influenced by intrinsic factors, is a significant function of earnings in this context. Another implication of these findings might be that a street trader's subjective experience of his or her work might be framed as a transactional relationship rather than as a relational relationship. It is further concluded that findings support the theory of a positive relationship between satisfaction along different loci, and age after a certain point.

RECOMMENDATIONS

An implication of these findings is that any financial assistance that such traders might receive might, in turn, increase their satisfaction with continuing in street trading. To the extent that many of these traders have little or no alternative form of work, it is suggested that such financial assistance on the part of policy makers might contribute to intrinsic upliftment for certain of these traders. A change from products to services, such as hair-braiding, might also reduce satisfaction in this context. It is recommended that training be provided for such traders, in order to improve the skills of these people, because skills endowments such as hair-braiding skills might be associated with an intrinsic return to such an investment.

It is concluded that different types of work in this context are more satisfying than other types of work. This supports seminal theory that differentiates between different types of work in terms of satisfaction. Lower capital intensive product offerings were also found to be associated with lower levels of continuance satisfaction. The implication of this finding is that if traders were to choose certain, perhaps more

capital intensive, product offerings, then dissatisfaction with continuing in street trading might be reduced. This finding is significant because it indicates that there is both an extrinsic and an intrinsic return on investment in certain types of work in this context. Whereas an extrinsic return has been found to exist in this sector, as initial investment has previously been found to be associated with higher earnings, this finding indicates that an intrinsic return is also possible in this sector. It is recommended that training and support be offered to such traders by policy makers in order to empower these people with the knowledge that: (i) changing their product provision to items that are more capital intensive can offer both higher levels of earnings and also continuance satisfaction, and that (ii) changing their provision to services (instead of products) can lead to higher levels of continuance satisfaction. Such higher levels of earnings or continuance satisfaction are expected to contribute to better working conditions for people effectively excluded from the statutory protections associated with formal work.

SUGGESTIONS FOR FURTHER RESEARCH

Although reflecting an association typical of other work contexts, further research is suggested into the specific dimensions along which age contributes to continuance satisfaction in this context. It is recommended that further research be undertaken in such contexts of resource constraint, in order to provide more insight into how the satisfaction of such people can be enabled and their working conditions can be improved. If financial assistance cannot be provided, it is argued that an investment in further research and training might offer these people knowledge of how to be more satisfied in such a potentially involuntary state of work. Further qualitative, or causal research, is suggested in this context, into both the causes of, and consequences of, higher levels of satisfaction for these people in this context.

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