



South Africa Siyasebenza

# Learning Series

10 JUNE 2021

## Emerging Community Retail Businesses – Paper 2

*Technology and Coaching to Enhance Business  
Performance of Spaza Shops: The case of A2Pay*



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*The Jobs Fund is a R9 billion fund established by the South African Government in 2011. It was established to encourage innovation and give greater impetus to initiatives with potential to generate sustainable employment. The Fund aims to catalyse innovation in job creation through structured partnerships with the private and public sectors as well as NPOs by awarding once-off grants to organisations through a competitive process. The Jobs Fund operates on challenge fund principles and aims to incentivise innovation and investment in new business approaches that directly contribute to long term sustainable employment creation.*

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### Abstract

*This paper presents the results of a survey conducted by the Jobs Fund on Spaza shops in four provinces in South Africa. It is the second of a series of four papers intended to highlight findings from a larger evaluation. The survey highlighted in this paper used a quasi-experimental approach to investigate the business performance outcomes of A2Pay supported Spaza shops in KZN, Eastern Cape, Western Cape and Gauteng provinces. The survey found that Spaza shops that received vending technology machines and business coaching from A2Pay performed better than similar Spaza shops that did not receive this support. The supported businesses had higher monthly turnovers and turned healthier profits than their counterpart control Spaza shops.*

## 1. Introduction

One of the tenets of the Jobs Fund A2Pay Theory of Change is that the provision of technology in the form of fixed and mobile vending machines loaded with prepaid products, combined with quality coaching in business skills, increases the business performance of community retail outlets commonly known as Spaza Shops.

This paper presents the results of a quasi-experimental component of a larger evaluation conducted by the Jobs Fund on the effect of technology and coaching on business performance. This aspect of the evaluation was focused on understanding whether there was a statistically significant difference in business performance between A2Pay supported Spaza shops and those without the A2Pay support. The quasi experiment was meant to establish attribution between the technological support offered to Spaza shops by A2Pay and increased business performance in terms of revenue, expansion activities, increased variety of products as well as improved quality of life of the retailers.

The evaluation adopted a quasi-experimental approach because the Spaza shops were not randomised into treatment or control groups at the beginning of the project. The quasi-experimental approach seeks to replicate the effects of an experiment but with a retrospective construction of a comparative control group, similar in key demographic and other relevant characteristics to the treatment group at the time of evaluation. This approach is detailed in Section 2.1.

## 2. Method

### 2.1 General Research Design and Approach

Establishing attribution necessitates an experimental approach to evaluation design. This entails the use of comparable treatment and control groups to try and understand the effect of project interventions. This is best done at the beginning of the intervention when the necessary controls and checks can be put into place to control the conditions under which the two comparable groups will operate. This is more easily achieved in the Natural Sciences than in the Social Sciences. The population with the intervention is called the treatment group while the population without the intervention is referred to as the control group. For the project under review the distinction was between those Spaza shops, which received direct project support from A2Pay in the form of the vending devices, coaching support and (for some) access to finance, as opposed to those Spaza shops that did not receive this support. As indicated earlier, this differentiation is best done at the outset of the project but unfortunately this was not the case for the A2Pay project. The control group was constructed at the time of the evaluation. The results should therefore be read with a disclaimer in mind as they are only an approximation of what could have been the case.

## 2.2 Sampling Approach: The Treatment Group

A2Pay's database contained a listing of 1,234 Spaza shops reflecting the total number of A2Pay supported shops that had been successfully audited and verified as of March 2020. This represents the total number of treatment Spaza shops in the sampling frame. For a 95% confidence interval, an overall sample size of 294 A2Pay-supported Spaza shops was required to be selected from this sample frame. The specific Spaza shops to be surveyed were selected through a systematic sampling process, selecting every  $k$ th element in the sampling frame, where 'k' denotes the sampling interval. A total of 206 A2Pay-supported Spaza shops were selected using this process (Table 1). The reasons for the shortfall of the final sample from the desired sample size of 294 relate to two main factors:

1. The geographic location data (GPS coordinates) provided by A2Pay were not always accurate. This necessitated considerable time being spent in the field re-verifying shop locations; and
2. Scheduling interview times with Spaza shop owners proved more challenging than expected. A number of shop owners were not present in their shops, often leaving their employees to operate the shops on their behalf. This necessitated considerable time to call and set up interviews with shop owners, with these

scheduled times not always being honoured by the shop owners.

## 2.3 Sampling Approach: The Control Group

For the selection of Control group participants, a snowball sampling approach was employed. Referrals were sought from knowledgeable key informants within communities, where the treatment questionnaire was being administered. The following are the criteria which had to be met for a Spaza owner to be included in the control group:

1. The shop owner must have been operating a Spaza shop that is not (in any way) supported by A2Pay;
2. The shop owner had to be a South African citizen;
3. The shop owner must have been operating their business for at least six months (the same requirement was part of the screening for the treatment sample);
4. The shop owner's business had to be located within close proximity (1-2 km) of a treatment Spaza shop (to ensure comparability in community socio-economic conditions and likely foot traffic);
5. The shop owner's Spaza shop had to be selling a similar range of goods (minus the products sold through the A2Pay vending machine) as nearby comparable treatment Spaza shops;

**Table 1: Sample Selection across the 4 Provinces**

Province	Total # of Spaza Shops in the Sampling Frame)	Share of Project Beneficiaries (%)	Planned Sample Size	Actual Sample Size
<b>Gauteng</b>	649	53	156	101
<b>KwaZulu-Natal</b>	423	34	100	90
<b>Western Cape</b>	109	9	26	12
<b>Eastern Cape</b>	53	4	12	3
<b>TOTAL</b>	<b>1234</b>	<b>100</b>	<b>294</b>	<b>206</b>

6. The shop owner had to, if possible, be of the same gender and age bracket as those from nearby comparable treatment Spaza shops

A total of 108 control Spaza shops were sampled. The two main challenges associated with identifying a more sizeable control sample were:

1. The difficulty of identifying Spaza shops that were South African owned in areas near the treatment Spaza shops (in some areas, A2Pay had engaged with the South African-owned shops in a given area and others in close proximity were all foreign-owned);
2. Unlike the treatment Spaza shops, which were relatively easy to access, control Spaza shops were more suspicious of the research team, either because of worries over Covid-19 or because of perceptions that members of the research team were associated with SARS and were looking to get information on the Spaza shop for tax purposes.

## 2.4 Method of Data Collection

The survey of Spaza shop owners was carried-out through the administration of a structured questionnaire. The questionnaire was designed to capture data on the following themes:

1. Job creation:
  - Total number of jobs (besides the shop owner) created at the Spaza shop.
2. Turnover and growth potential:
  - Average monthly turnover (current and change in average turnover over the past three years);
  - Shop owners' reported business profitability;
  - Shop owners' reported main barriers to business growth (e.g. physical expansion or opening of a second shop);
  - Shop owners' reported ability to meet the operational costs of their businesses;

3. Knowledge and application of good business practices:

- Proportion of shop owners maintaining purchase and sales records (and types of records kept);
- Proportion of shop owners regularly tracking their profit/loss; and
- Proportion of shop owners with stock management practices in place.

By collecting the above data for Spaza shops that have and have not received A2Pay support, the evaluation sought an estimate of the 'treatment effect' (i.e. direct project support in the form of the installation of the fixed or mobile devices plus the wider package of A2Pay-provided coaching and financial support).

## 3. Results and Findings

As indicated earlier, the aim of the analysis was to investigate possible differences in the treatment and control groups that could be attributed to the technological support and training given to the treatment A2Pay supported Spaza shops.

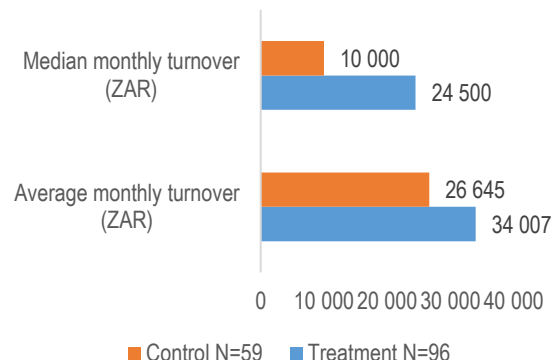
The analysis reveals virtually no difference in employment outcomes as a measure of performance between the treatment and control group samples of Spaza shops.<sup>1</sup> Both groups had an average of one fulltime employee on site and most had no plans of employing more full-time employees.

The analysis also shows that while Spaza shop revenues are prone to fluctuate, 80% of A2Pay-supported Spaza shops reported increases in their monthly turnover over the period 2017 to June 2020. They also reported average and median monthly turnovers of R34,007 and R24,500, while the control group reported R26,645 and R10,000, respectively (Figure 1).

The current monthly turnover of treatment Spaza shops was also higher than the current monthly

<sup>1</sup> This could be either a question of timing, since the spazas receiving the treatment needed time to grow their businesses before they could expand and employ

additional staff, or that the business model of a spaza shop comprises of owner and one assistant. There are generally two employees per Spaza shop.

**Figure 1 - Median monthly turnover**

turnover of the 'control' Spaza shops. These differences were found to be statistically significant (Table 2).

Eighty percent (80%) of the treatment Spaza shops reported some type of increase in their monthly turnover over the period 2017 to July 2020. This compared with 54% of control Spaza shops. This difference was also found to be statistically significant.

Of those 'treatment' shops reporting an increase at some point over this time, 46% attributed this increase to the A2Pay vending machine 'to a high extent', while a further 30% did so to a 'moderate extent'. These figures again suggest that the A2Pay vending machine is as a driver

of the reported increases in monthly turnover seen in the 'treatment' Spaza shops.

A higher percentage of treatment Spaza shop owners reported that their shops were 'highly profitable', 40% compared to 26% for their control counterparts. These differences were found to be statically significant as well (Table 2).

A significantly higher percentage of treatment shop owners reported that they maintained sales slips, invoices and receipts (55% compared to 28% of control shop owners). This is linked to the operation of the A2Pay vending machines, which allow shop owners to automatically produce these documents. Eighty-seven percent (87%) of treatment Spaza shop owners reported employing stock management practices, while only 63% of control Spaza shop owners reported doing so. This difference was also statistically significant.

## 4. Conclusions & Recommendations

The findings from the Spaza shop survey clearly indicate that the intervention by A2Pay resulted in improved business performance but more importantly that this improved business performance is attributable to the technological support and coaching provided by A2Pay.

The statistical analyses testing whether particular differences in group means (between treatment and control groups) are likely to be the product of chance or not, show that changes in the business performance of the A2Pay Spaza shops are directly related to project activities.

The uptake of improved business management practices (e.g. stock management and record-keeping) and, importantly, the quality of this uptake, are tied to the high quality of A2Pay's entrepreneur coaching program. The stark differences between the treatment and control Spaza shops when it comes to their average monthly turnover, as well as changes in this turnover over time, are also highly attributable to the support provided by A2Pay.

**Table 2 - Statistical Analysis Results on Business Performance Attributes**

Attribute	Treatment	Control	Statistically Significant
Shop had at least one Full time employee	84%	86%	No
Reported average monthly turnover	R 34,007	R 24,500	Yes
Reported median monthly turnover	R 24,500	10,000	Yes
%ge of shop owners reporting increase in monthly turnover	80%	54%	Yes
%ge of shop owners reporting highly profitable business	40%	26	Yes
Maintained sales slips, invoices and receipts	55%	28%	Yes
Employed stock management practices	87%	63%	Yes

Opportunities to build on the machines' current offerings, through the inclusion of additional products and/or services (e.g. Eskom electricity vouchers, mobile banking services, etc.), would likely allow for the shops to continue growing their revenues through the vending machines in future.

A possible explanation for the lack of difference in employment outcomes between treatment and control groups could be that the nature of small-time retail trade does not lend itself to large scale employment outcomes. These are local convenience outlets targeted at providing a quick service for fast moving consumer goods as close to the customer as possible. It makes sense that one full time hand is usually enough to achieve optimal operation of the outlet. Overall, the A2Pay-supported shop owners modestly increased their hiring in the past three years. However, there seems to be a will among shop owners to expand their direct hiring in future anchored in their ambitions to expand their operations.

It should also be noted that large scale job creation per site was not a specific goal of the A2Pay JF6 project and care should be taken not to use it as a business performance measure. Building sustainable livelihoods in the informal sector was a greater imperative. The results of this survey show that the A2Pay model of providing enhanced technology to local retailers operating Spaza shops leads to improved business performance. This keeps the retail operators in employment and contributes to better livelihood outcomes in their communities. The scaling of the A2Pay model should therefore be supported.

It is also recommended that similar studies be conducted in different entrepreneur spaces that easily lend themselves to technology support and coaching to see if similar outcomes can easily be achieved. The extension of the A2Pay model to other sectors other than retail would be a welcome relief in the face of the COVID pandemic and massive job losses in the country with regard to improving business performance and keeping operations alive. The project demonstrated how access to technology, when combined with quality business skills development training, can be used to achieve higher business performance in the informal sector. The evaluation found evidence that

the application of technology and the sense of 'professionalism' it represents, can make the retail sector more attractive to South African youth. However, it is also worth exploring whether the application of the A2Pay technology can be applied to other types of retail businesses beyond Spaza shops, which remain largely the preserve of older men and women.

## 5. References

1. Final report. Impact Evaluation of the A2Pay projects, Upendo Consulting, December 2020



## Notes on the Emerging Business Learning Series

The Emerging Community Retail Business series consists of four papers:

1. *Emerging Community Retail Businesses – Paper 1: A Qualitative Evaluation of the A2Pay 'Innovation and Application of Technology' Project*

This paper is the first in a series of four papers that present the results of the impact evaluation conducted by Upendo Consulting on the implementation of the A2Pay technology support to Spaza shops in the country. The paper presents the results of the qualitative component of the study conducted in KwaMashu, Inanda, Soweto, Katlehong, Khayelithsa and East London.

2. *Emerging Community Retail Businesses – Paper 2: Technology and Coaching to Enhance Business Performance of Spaza Shops, The case of A2Pay*

This paper is the second in a series of four intended to highlight findings from a larger evaluation of A2Pay that used different research methodologies. It presents the results of a survey conducted on Spaza shops in four provinces in South Africa (Eastern Cape, Kwa Zulu Natal, Gauteng and the Western Cape) using a quasi-experimental approach to investigate the business performance outcomes of A2Pay supported Spaza shops in the four provinces

3. *Emerging Community Retail Businesses – Paper 3: Transport effects on households accessing the A2Pay supported Spaza outlets in Soweto*

This is the third of a series of four papers representing the different aspects of the findings drawn from the evaluation study on A2Pay done by Upendo Consulting. It presents the results of a household survey conducted in Soweto by the Jobs Fund as part of a larger evaluation study of the A2Pay project's impact on project participants between 2017 and 2020.

4. *Emerging Community Retail Businesses – Paper 4: The Sustainability of Township Businesses: A Longitudinal study of the A2Pay 'Access to Wireless Retail Technologies' Project*

This paper is the last in a series of four papers that present the results of the impact evaluation conducted by Upendo Consulting on the implementation of the A2Pay technology support to Spaza shops in the country. It uses a longitudinal approach to study the sustainability of supported business ventures. It presents data from a follow-on survey to the first survey that was conducted in 2015 on 100 A2Pay vendors by Impact.