



**INNOVATION AWARD**  
Advancing financial inclusion through data innovation

# ZedCredit: Sentiment analysis in the design of women's savings solutions

DataHack4FI Innovation Award Season 2  
**In-country winner for Zambia**

Targeting savings groups and women with a mobile savings product

**Author: Rinelle Chetty**  
July 2018

An initiative of



Advancing Financial Inclusion

## About ZedCredit

ZedCredit is a fintech based in Zambia that participated in the DataHack4FI Innovation competition, Season 2. ZedCredit was conceptualised and founded in 2015 by Tundwa Siyubo, a business graduate from Zambia's National Institute of Public Administration. It was registered in 2017, when he met his childhood friend and fellow co-founder-to-be, Dominic Kapalu, an economics graduate from the University of Zambia. ZedCredit's mission is to provide access to financial services for low-income Zambians. It seeks particularly to enable women and youth to access formal financial services, which it does by providing users of its mobile app with access to savings, loans and a credit score. Its mobile savings wallet Wele allows women to save in addition to their informal savings groups and to save for a specific goal.

## The product design challenge

Through the Datahack4FI Innovation competition, ZedCredit sought to design a digital financial service for women who are enrolled in informal savings groups. This process required information on the savings preferences of women in Zambia. Timely information on the savings needs, feelings and attitudes of this target group was, however, not publicly available. So, ZedCredit embarked on a data collection and analysis exercise to uncover this information and to determine how individual savings products could effectively be designed to meet women's needs. They sought to uncover how these financial solutions could be designed to ensure uptake and continuous use.

## Data collection

ZedCredit interviewed 200 women in savings groups as part of its on-the-ground market research where its team had the opportunity to "fall in love with the problem" they were solving. The questionnaire's 10 questions focused on eliciting respondents' feelings and thoughts towards saving. It asked for respondents' perceptions of, and objections to, using a digital wallet and their interest in saving for the future. It also sought to extract those savings product features that were most and least important to women.

## Sentiment analysis

ZedCredit analysed this data by using sentiment analysis, or opinion mining. Sentiment analysis is the process through which one can identify and quantify an individual's emotional attitudes and opinions towards a particular topic from unstructured text data, such as interviews, survey responses and questionnaires. This is often used on social media platforms to analyse customer opinions and sentiments towards certain products, brands or people. Sentiment analysis can determine an opinion's underlying polarity – whether it is positive, negative or neutral. It can further determine emotional responses such as happiness, sadness and anger. Words associated with a particular sentiment (e.g. positive, negative or neutral) can also be allocated a numerical score on a specified scale. Unstructured data can then be analysed using natural language processing, a computational mechanism through which natural language or speech can be analysed. ZedCredit captured the insights from this analytical approach and inputted this into its product design.<sup>1</sup>

---

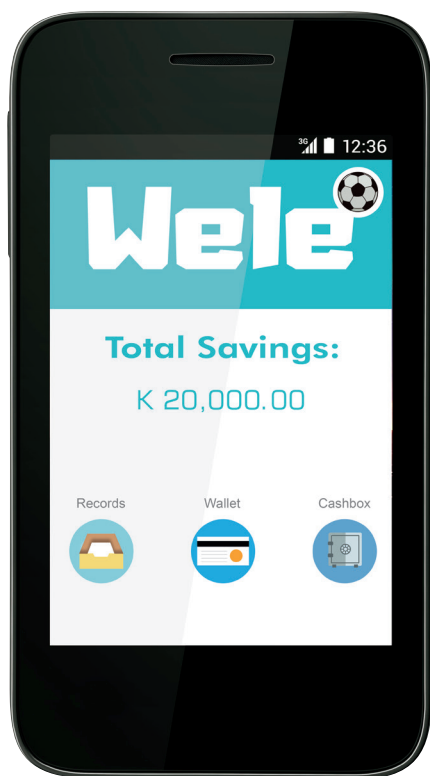
<sup>1</sup> Brandwatch. (2015). Understanding Sentiment Analysis: What It Is & Why It's Used. Available at: <https://www.brandwatch.com/blog/understanding-sentiment-analysis/>



## Key insights

Using sentiment analysis, ZedCredit was able to uncover key words such as time and safety (among others) as some of the greater concerns for women in Zambia who belong to a savings group. They found that women complained about time being a hindrance to meeting their savings goals, wanting convenient and less time-consuming options through which to save. They found that women were uncomfortable with having (and with people being aware of them having) a large amount of cash with them during their savings group meetings. They found that women showed a preference for wanting to save their extra disposable income outside of the savings group. Women wanted to keep their money safe until it was needed for an event (like a wedding) or for an emergency or goal (education, business, etc.).

Figure 1: Wele app interface



Source: ZedCredit (2018)

## What did the insights lead to?

The results of the sentiment analysis informed the design of Wele, a celebratory expression that comes from the Zambian word for goal. Wele is a commitment savings wallet that allows women to save for a specified event. The mobile application can be downloaded from the Google Play store or the Apple store, and it prompts users to save money in a self-defined, goal-directed savings account. The product seeks to enable women to achieve their financial savings goals by electronically storing their money until a specified date or for a particular event. Money can be deposited into the account at all Airtel mobile-money agents. The design of the commitment savings product specifically targets an individual's need for commitment and, in particular, the preference that women have been found to have for soft commitments such as goal-directed savings<sup>2</sup>.

From the sentiment analysis, ZedCredit was able to better understand the negative attitudes and anxiety felt by Zambian women towards safety of their money and time constraints related to successfully saving towards an event or goal. It uncovered their reported need for safely committing their savings outside of the reach of their household and their savings group, and their desire to build their savings balance for a specific self-defined purpose.

“ Using sentiment analysis, ZedCredit was able to uncover key words such as time and safety (among others) as some of the greater concerns for women in Zambia who belong to a savings group. ”

2 Chetty, R., De Villiers, L., Dudar, B., and Smit, H. (2018). What can behavioural science tell us about the financial decisions of women? Evidence from a systematic review of behavioural interventions. Available at: [https://cenfri.org/wp-content/uploads/2018/04/What-can-behavioural-science-tell-us-about-the-financial-decisions-of-women\\_Cenfri-IDRC\\_April-2018.pdf](https://cenfri.org/wp-content/uploads/2018/04/What-can-behavioural-science-tell-us-about-the-financial-decisions-of-women_Cenfri-IDRC_April-2018.pdf)

This case study is part of the DataHack4FI Innovation Award competition Season 2 series. It describes the solution as developed by the tech startup and its partnered data fellows during the competition. The competition brings together data enthusiasts and financial service providers to promote the use of data-driven decision-making in financial inclusion.

## The DataHack4FI team



**Tundwa Siyubo**  
Co-founder



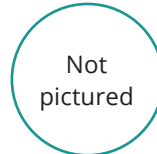
**Dominic Kapalu**  
Co-founder



**Luckjoe Wamundila**  
Data mentee



**Chanza Thomas Simunzingili**  
Data mentee



**Rhoda Chiwele**  
Data mentee



**Chansa Kabwe**  
Data mentor

## How to find us:

Get involved. Contact us.

+27 21 913 9510  
i2ifacility.org  
datahack4fi.org

@i2ifacility  
 /insight2impact  
 /insight2impact  
 /i2ifacility

Established by



Sponsored by

